

संरक्षा शाखा
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
01/2021-22



विषय: मानसून पूर्वोपाय

Sub:- Monsoon precautions.

दिनांक/Date : 20.04.2021

No.SUR/SFT/S/103

SAFETY CIRCULAR - 01/ 2021-22

All concerned /SUR

Sub:- Monsoon precautions.

Following points should be ensured & checked before and during the monsoon.

1.0 TRACK:

1. All catch water drains and side drains must be cleared of silt, vegetation and other obstructions to ensure free flow and quick drainage of water
2. Water way of bridges must be cleared of vegetation and other obstructions.
3. Protective and river training works must be maintained in good condition and repair works carried out where ever necessary. Scour holes should be filled with boulders.
4. The High Flood level (HFL), Full Supply Level (FSL) and Danger Level (DL) must be painted
5. In hilly areas loose boulders should be felled down in a systematic and safe way.
6. Track circuited areas need special attentions to avoid failures. All missing liners and grooved rubber pads should be replaced.
7. Joints should be attended properly. Drainage of track particularly in yards should be ensured to avoid any stagnation of water and development of pumping joints/sleepers.
8. All types of drains should have proper slopes and clear outlets so that rains may not affect the operation of trains.
9. Track in platform portion, cuttings and inside tunnels be given special attention for correct track geometry and efficient drainage.
10. The section which require patrolling to be identified & notified in the division. (*Para 1004(1) of IRPWM*). The equipment of Patrolmen and other watchmen shall be complete in all respect.
11. Spare trollies should be kept in readiness for easy access to any location in case of emergency.
12. Ensure that, trees of doubtful integrity which can fall on the track are removed.
13. SSE/P.Way to submit a certificate to DEN/Sr.DEN before one month of commencement of monsoon that he has made all the arrangements for monsoon patrolling & watchman at vulnerable locations. (*Para 1004(7) of IRPWM*)
14. The Prescribed reserve stock of boulders, empty cement bags, wire netting and sand/ quarry dust must be kept at specified locations for rushing to site in case of emergency.
15. Action should be taken as envisaged in *Para.1127 of IRPWM* in the case of Railway Affecting Works (RAW)
16. Temporary Engineering indicators must be kept ready for use.
17. Rain gauges should be checked and ensured that they are in working condition.
18. Vulnerable locations should be reviewed jointly by DEN and ADEN the register maintained must be made updated.
19. RH girders and adequate number of C.C.Cribs should be kept ready loaded in BRN for use in case of emergency.

2.0 TRAINING AND EDUCATION OF ENGG. STAFF:

1. Watchmen for vulnerable locations and Patrolmen are to be selected judiciously.
2. Mates and Key men are to be trained and educated for taking action on receiving weather warning messages, sudden storm and rain water level rising near bank or at bridges and in posting and managing patrolmen.
3. Monsoon patrolling charts should be studied and subordinates be trained for ensuring proper checking of patrolmen.

3.0 BRIDGES :

1. Water way should be adequately cleared.
2. The approaches of girder bridges should be properly attended & the top of abutments & Piers cleaned.
3. It should be ensured that no water way, training or protective work is left out incomplete.
4. Soundness of tunnels and cuttings should be tested and required follow up action be taken.

4.0 PRE MONSOON ARRANGEMENTS TO BE MADE BY ENGG. DEPARTMENT:-

1. Stock of boulders, ballast, sand bags, muck, quarry dust should be loaded in wagons and stabled near flood prone locations. Above material in adequate quantity should also be stocked in Divisional HQ for emergency requirement.
2. C.C. Cribs / R.H. Girders should be stacked at nominated stations to meet out emergency.
3. Monsoon rakes at nominated locations should be ready by 31st of May, 2021.
4. Adequate stock of K. Oil, Diesel, Cotton waste, fuses and match boxes petromax & flasher torch, and detonators should be available at every PWI Depot.
5. Phone numbers of Supervisors, Officers, Stations should be readily available for contacting in emergency.
6. The Officer and Supervisors should inform their whereabouts to their immediate superiors & to Engg./Divisional Control at all times.

5.0 LOCO DEPARTMENT:-

1. All locos should be provided with window wipers, sanding equipments and with all Roof leakage arrested before they are given for traffic.
2. The look out Glass, side shutters and window glass of locomotives should be checked out thoroughly and all deficiencies to be attended to.
3. Head lights, Marker lights, flasher lights etc. should be thoroughly checked before turning out the loco from sheds.

6.0 DUTIES OF LOCO PILOT:-

1. Follow all speed restriction meticulously.
2. They should take extra precaution while passing through cutting, bridges, newly laid LHSs, L C Gates, Station.
3. Calling out signal aspects between LP and ALP, to be done in a loud and clear voice.
4. Look out for patrolman's signal or detonators signal.
5. They should not work the train if water level is more than 4 inches (100 mm) above rail level.
6. LPs are required to drive trains more vigilantly and cautiously looking out for any obstructions ahead.

7.0 DUTIES OF STATION STAFF:-

1. The station staff should ensure that the Monsoon patrolling is conducted by the Patrolman as per the Monsoon chart and diaries are maintained by these patrolmen and note the timings in their station diaries.
2. If a patrolman does not turn up within 15 minutes of his scheduled arrival at the station, Station Master must ensure that a caution order is issued to all the trains entering that particular block section.
3. On a double line section the Station Master must ensure that a train proceeding in the opposite direction is issued with a caution order if a particular passenger train does not arrive within 10 minutes or a goods train within 20 minutes from the normal running time.
4. SM must ensure that all weather warning messages are correctly taken and preserved and delivered in time to the concerned Engineering official and acknowledgement is obtained.
5. All vulnerable trees at the station likely to fall on tracks due to heavy winds must be identified and action taken to prune them.

8.0 S&T

1. Ensure availability of adequate number of GFN liners and rubber pads in track circuit area.
2. Proper drainage to avoid water logging in track circuited area.
3. Replace broken MBC sleepers in track circuited area.
4. No water leakage in relay room.
5. Replace rusty and damaged bond pins and bond wires.
6. Replace defective cable/cable conductors detected during cable meggering.
7. Seal, signal units with adhesive tape to avoid water logging.

All concerned staff should take appropriate action in time and prevent unusual occurrences taking place on this division during Monsoon.

(Suresh Kumar N.T.)
Sr.DSO/SUR.

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Safety Branch
Solapur Division

संरक्षा परिपत्र Safety Circular 02/2021-22

POSITION OF ENGINEERING INDICATORS IN CASE OF MULTI SPEED RESTRICTIONS -- CASE-1 & 2 --



NOTE : WHEN LENGTH OF SPEED RESTRICTION ZONE UP TO 1000 M, ADVANCE WARNING SIGN SHOULD BE PLACED AT THE PLACE UP TO 1000 M BEFORE THE RESTRICTION ZONE. WHEN LENGTH OF SPEED RESTRICTION ZONE IS MORE THAN 1000 M, ADVANCE WARNING SIGN SHOULD BE PLACED AT THE PLACE UP TO 1000 M BEFORE THE RESTRICTION ZONE.

PROTECTION OF LINE IN CASE OF WORKS OF SHORT DURATION AT STOP DEAD RESTRICTION



**विषय : इंजीनियर कार्य स्थलों पर संरक्षा बरते जाने वाले
पूर्वोपाय ।**

**Sub:- Safety at Engineering work sites - Precautions to
be taken.**

दिनांक/Date : 26.04.2021

Central Railway

No.SUR/SFT/S/103

DRM's Office
Safety Branch, Solapur
Dt. 26.04.21

SAFETY CIRCULAR – 02/2021-22

All concerned / SUR

SUB: Safety at Engineering work sites – Precautions to be taken.

WORKS REQUIRING COMPLETE BLOCK PROTECTION

A. Category of works where track is required to be occupied are:-

- a) Working of on - track machines
- b) Working of material trains or girder specials
- c) Working of dip-lorries
- d) Working of motor trolleys.

B. Category of works where discontinuity in track

1. Discontinuity in track is created

2. May result discontinuity in running track

- a) Through rail renewal
- b) Casual rail renewal
- c) Replacement of SEJ/Buffer rail
- d) Replacement/insertion of glued joint
- e) Temporary/permanent repairs of rail fractures
- f) Temporary/permanent repairs to buckling.
- g) Replacement of switch / crossing or any part of turnouts.
- h) De-stressing of LWRs
- i) In-situ welding of rails.
- j) End cropping and welding.
- k) Through renewal of bridge sleepers.
- l) Replacement of girder with slabs.
- m) Removal of rail from track for any purpose.

WORKS WITHOUT BLOCKS BUT WITH IMPOSITION OF SUITABLE SPEED RESTRICTION

(With adequate protection and other safety measures)

- a) Through sleeper renewal.
- b) Deep screening.
- c) Lifting / Lowering of track.
- d) Realignment of curves.
- e) In situ reconditioning of points and crossing.
- f) Pre & Post de-stressing operation.
- g) Adjustment of creep
- h) Adjustment of gap in SWR.
- i) Casual renewal of sleeper in tunnel.
- j) Lubrication of rail joints by gang.
- k) Major over hauling of LC gates.

WORKS WITHOUT BLOCK AND WITHOUT ANY SPEED RESTRICTION

**A) Work Requires Look Out Caution Order: - OEHS
(with adequate protection and safety measures)**

- a) Working of rail dolly.
- b) Works involves mass labor / noise /restricted visibility due to dusty conditions, such as in BCM working-caution order to be issued to trains on adjacent line.
- c) Casual replacement of bridge sleepers.
- d) Changing of guard rail on Girder Bridge.

- e) Changing of loose rivets on girder bridges.
- f) Painting of bridge girder
- g) Working of power driven rail drilling machines.

B) Works not Requiring any Caution Order

(with adequate protection and safety measures)

- a) Through packing .
- b) Shallow screening.
- c) Casual replacement of sleeper.
- d) Replacement of isolated fish plate.
- e) Painting of rails and welds.
- f) Oiling of fitting
- g) USFD operation
- l) Drilling of holes in rail with hand operated ratchet.
- h) Repairs to cess.
- i) Lubrication of rail joints by Key man
- j) Minor Overhauling of level crossings

CHECK LIST WHILE WORK IS IN PROGRESS

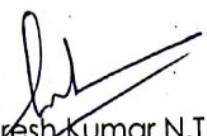
- 1) Does the knowledge of supervisor on safety of track and work site up to the mark?
- 2) Are adequate safety precautions taken?
- 3) Are communication facilities (walkie – talkie sets) available at site?
- 4) Are adequate protection equipment available at site?
- 5) Is caution order to trains being issued ?
- 6) Are train drivers following the enforced temporary speed restrictions ?
- 7) Has work permit been taken for working in electrified territory / station yards(P&C areas) ?

PRECAUTIONS REQUIRED TO BE TAKEN DURING EXECUTION OF WORK REQUIRING TRAFFIC BLOCK

- 1) Any work which in-fringe the moving dimensions shall be started only after the traffic block has been imposed and the track protected.
- 2) At locations where night working is unavoidable, proper lighting arrangements should be made.
- 3) Before closing the work, the track shall be left with the proper track geometry so that the trains run safely.
- 4) After completion of work, the released sleepers and fittings should be properly stacked away from the track to be kept clear of moving dimensions.
- 5) Block shall be removed only after all the temporary arrangements machineries, tools, plants etc. have been kept clear off standard moving dimensions.

STACKING OF MATERIAL ALONG THE RAILWAY TRACK.

- 1) The sites for material stacking shall be selected in advance ensuring that, no part of the stacked material would infringe the standard moving dimensions. A plan of proposed stacking locations be made and signed jointly by an authorised Railways representative and contractor's representative.
- 2) The selected locations shall be marked by lime in advance.
- 3) Presence of an authorised Railway's representative while unloading and stacking materials shall be ensured.
- 4) The material shall be stacked up to such a height which will not cause infringement to SOD in case of accidental roll off.


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Safety Branch
Solapur Division

संरक्षा परिपत्र Safety Circular 03/2021-22



विषय: रेलवे साईन के पास खुदाई एवं साईन में कार्य करने से पहले बरती जानेवाली सावधानियां ।

SUB: Precaution to be taken while working/excavation near or on running track.

दिनांक/Date: 04.05.2021

No. SUR/SFT/S/103

SAFETY CIRCULAR - 03/21-22

All concerned /SUR

Sub:-Precaution to be taken while working/excavation near or on running track.
Ref :-IRPWM Para. 806& 807, CE Circular No.190, JPO No.1/Sig/2004
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MEASURES TO BE TAKEN PRIOR TO START OF WORK AT SITE :

1. Before commencing the work, a work permit in the prescribed format should be jointly signed by officer of the construction/other Organizations, Supervisor in-charge of the work, Assistant Divisional Engineer of the section and SSE(P Way) of the section.
2. ADEN of the section should know the name of work supervisors of construction/other organization who are the site in charge/ in charge of the work.
3. Name and address of the contractors.
4. List of individual vehicle number & name and license particulars of the driver proposed to be used.

MEASURES TO BE ENSURED DURING THE EXECUTION OF THE WORK.

1. Driver of the vehicles has been briefed about the safety and precautions to be taken while moving/working close to the rail traffic. CE/CR's circular No. 190 must be followed rigidly.
2. Contractors/his supervisors shall not allow any of his road vehicle within 6 meters of the centre of the running line without presence of railway supervisor.
3. Contractors shall ply road vehicles only between sunrise and sunset.
4. Contractors shall ensure that road vehicle/ machinery ply in a way so that it do not infringe demarcation line.
5. Checks shall be exercised by site in-charge from time to time & ensure train safety.
6. Working along the side of the track during night hours is normally prohibited.
7. Barriers shall also be provided by the contractors in the case of doubling particularly at the existing level crossing where there is every possibility of road vehicle entry.

IN CASE WORK TO BE DONE WITHIN 6 METERS FROM CENTRE OF TRACK BUT AT MORE THAN 3.5 METERS.

1. Demarcate the land by barbed wire fencing on concrete posts(with nominal reinforcement) of size 100 mm X 100 mm and 2.70 m long, 3 m apart at a distance of 3.5 m. from center of track. 750 mm of the concrete post must be buried below ground level (Refer attached sketch)
2. Impose suitable caution order to whistle freely to the driver of the approaching train.
3. Whistle board should be provided.
4. Work shall be done only in the presence of railway employees authorized by the engineer-in-charge.
5. Precautions for protection to track as per para no.806 & 807 of IRPWM & are taken in emergency.
6. Look out men should be posted along the track at a distance of 800 meters from the location of the work with red flag and whistle to warn the road vehicles regarding approaching trains.
7. One Railway Supervisor will monitor the availability and alertness of the look out men. In case of non availability of look out men, this railway's supervisors shall stop further activities of plying of road vehicles.
8. Representative of the engineer-in-charge of the construction organization will be responsible for the general superintendence and deployment of look out men and supervisors at each work site.
9. Road vehicle to maintain a minimum distance of 3.5 meters from the centre of the track.
10. Look out men shall patrol the beat as identified by the representative of the construction organization to ensure the safety of the running train, especially from any infringement.

IN CASE WORK IS TO BE DONE WITHIN 3.5 METERS OF CENTER LINE FROM RUNNING TRACK.

1. It shall be ensured that the work is done under block protection only.
2. Ensure presence of Railway Supervisor.
3. Precautions for protection to track as per para No. 806 & 807 of IRPWM are taken.
4. Road vehicle drivers should always face railway track during turning / reversing.
5. Whenever vehicle driver cannot face the track for whatever reason, he shall be invariably assisted by a helper with a whistle that should guide him and ensure safety.
6. Location of turning/ reversing of vehicle should be demarcated.
7. All locations, where construction activity is in progress adjacent to existing railway track lines should be cordoned off with proper barricades.

SAFETY AFTER COMPLETION OF WORK

1. Ensure alignment is not disturbed, track is clear of obstruction and tools and materials are not left on the track.
2. Ensure imposition of suitable caution order if required including caution indicators boards and manning if necessary.
3. Supervisor should not leave site unless one train has passed safely on track both UP and DN in double line.
4. Avoid any possibility of any material sliding or coming closer to track.

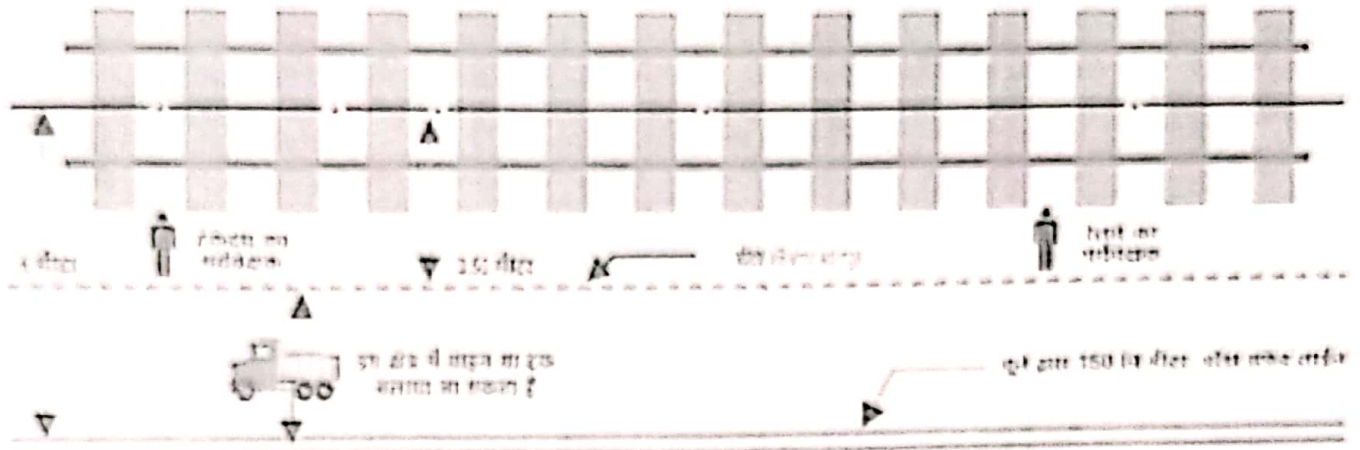
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सुरक्षा रेल

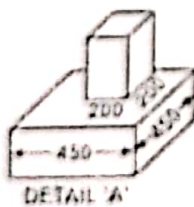
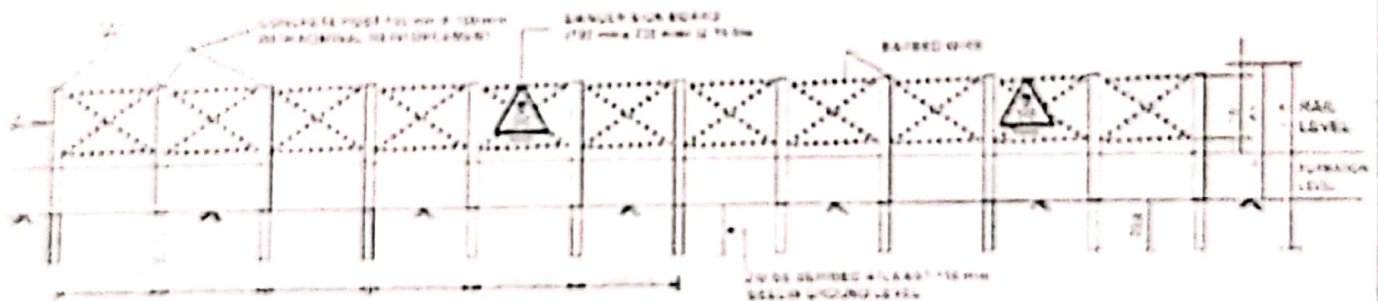
SAFETY AT WORK SITE

रेल लाईन के माध्य से 3.50 मीटर और 6.00 मीटर के बीच वाहन अथवा मशीनों का संचालन
PLAN



DESIGN OF BARRICADING

ELEVATION OF BARRICADING



नोट

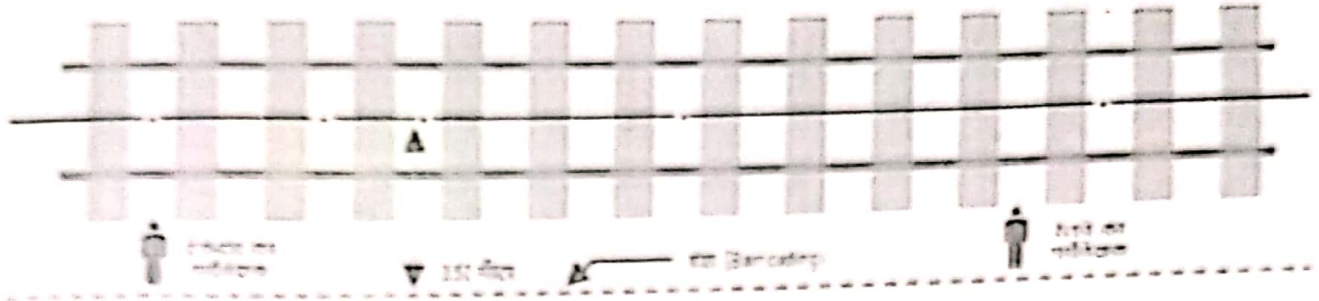
- 1) 800 मीटर पर लुक आउट आदमी की मौजूदगी तथा उसकी सतर्कता का प्रबोधन करना आवश्यक है।
- 2) लाईन के संरक्षा के लिए आवश्यक सावधानीयाँ सुनिश्चित की जाय और मशी को सतर्कता आदेश (Whistle freely and observe Engineering hand signal) जारी किया जाय।



साइट रेल

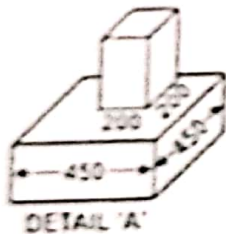
SAFETY AT WORK SITE

रेल लाईन के मध्य से 3.50 मीटर के अंदर कार्य करने के लिए
PLAN



DESIGN OF BARRICADING

ELEVATION OF BARRICADING



नोट

- 1) यह सुनिश्चित किया जाएगा की यातायात कार्यक्रमों का पालन किया जा रहा है ।
- 2) यह सुनिश्चित करें कि IRPWIM Para.806 & 807 के अंतर्गत लाईन की संरक्षा तथा आवश्यक संरक्षा सावधानियां बरती जा रही है ।
- a) अवरोध स्थल से 30 मीटर की दूरी पर एक सक्षम रेल सेक्टर द्वारा 'खतरा सिग्नल' दिखाया जाएगा ।
- b) अवरोध स्थल से 600 मीटर की दूरी पर एक बैनर फ्लैग लगाया जाएगा और उसके पास एक रेल कर्मचारी को नियुक्त किया जाएगा ।
- c) बैनर फ्लैग से 600 मीटर की दूरी पर 10 - 10 मीटर की दूरी पर तीन पट्टाखें लगाये जाएंगे और अंतिम पट्टाखे से 45 मीटर की दूरी पर जाल टाथ इंडी के साथ एक रेल कर्मचारी को नियुक्त किया जाएगा ।

संरक्षा शाखा
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
04/2021-22



विषय सावधानियां – स्पेड एसपीएडी – खतरा सिग्नल पार करना ।

Sub- 'SPAD' – Signal Passing at Danger - Precautions .

दिनांक/Date : 31.05.2021

No.SUR/SFT/S/103


SAFETY CIRCULAR – 04 / 21-22

All concerned /SUR divn.

Sub:- 'SPAD' – Signal passing at Danger – Precautions .

Attention : All Loco Inspectors, Loco Pilots and Asstt Loco Pilots, Shunting Loco Pilots.

1. Ensure adequate rest is taken at home as well as in running room .
2. Overcome stress by meditation.
3. Do not worry about personal problems while on duty.
4. Keep your CUG & personal mobile in switch off mode in your bag, while on duty.
5. Don't take Alcohol, Sedative, Narcotic or Stimulant drug within 8 hours before commencement of duty and during duty hours (GR 2.09).
6. Be conversant with sectional topography and know signal location by taking proper road learning. (GR 3.78).
7. Undergo breath analyzer test before Sign on and Sign off.
8. Go through the safety literatures/Technical instructions given from time to time.
9. Ensure correct departure signals are taken off for your train. (GR 4.35-1), ensure correct authority to proceed.
10. Before starting the train, call out the signal aspect of starter and advance starter . If Advance starter not visible, same to be call out as "Advance starter not visible".
11. Sight the signal from correct location and act accordingly (SR 3.26-3)
12. Call out the signal aspects loudly and clearly with hand gestures with ALP and acknowledge it. (SR 4.40-1)
13. Observe the signal aspect until the train has passed. (SR 3.78-2-b)
14. Do continuity test wherever required. (SR 4.31-1(d))
15. Conduct the brake feel/ brake power test at the first opportunity.(SR 4.18-5)
16. Observe all permanent and temporary speed restrictions. (GR 4.08)
17. Always keep your train under control so that it can be stopped depending on the signal aspect.
18. Do not obey conflicting signals. Always obey the correct signals. Disregard to signals may lead to mishap [SR 3.68-3(a)]
19. Avoid over speeding and overconfidence (GR 4.08)
20. Act immediately on Audio Visual Warning of VCD, Do not bypass VCD.
21. Do not use Walkie-Talkie as an alternative for passing a stop signal at ON.
22. During thick foggy whether or when visibility is not clear, take precautions as laid down in the [SR 3.61-1 & 2] and keep your train under control specially when approaching station.
23. Inculcate habit of writing all signal and track defects at sign off location.
24. Do not involve in any other activities such as packing of personal items, discussing any other matter which is not related to the train running at that time.
25. Carry both spectacles. (SR 2.03-2)
26. ALP's should apply emergency brakes by opening D 1 Pilot/R S valve in case LP is not vigilant or not reacting according to signal aspect.

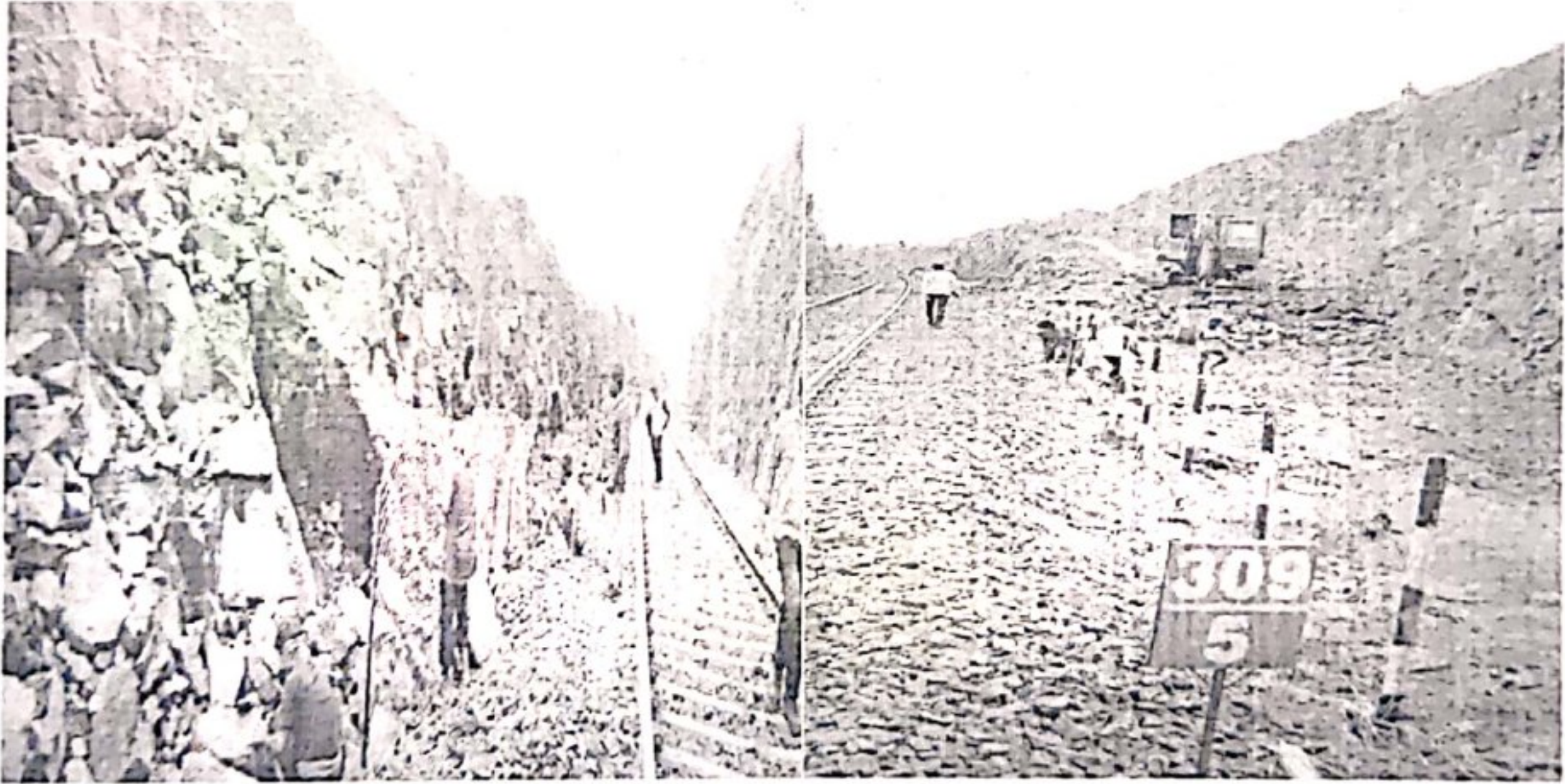

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सोलापुर मंडल

Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
05/2021-22



विषय :- कार्य स्थल पर संरक्षा और अपनाई जाने वाली कार्यविधि

SUB: SAFETY AT WORK SITE AND PROCEDURES TO BE FOLLOWED

DATE : 10.06.2021

Central Railway

No. SUR/SFT/S/103

D.R.M's Office
Safety Branch,
Solapur.
Date: 10.06.2021.

SAFETY CIRCULAR - 05/21-22

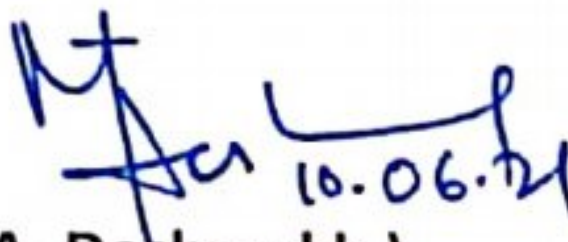
All concerned /SUR

SUB: Safety at work site and procedures to be followed.

There have been cases of working on track or in the vicinity of track without taking adequate measures to ensure track safety, endangering safe working of trains. The following instructions are to be strictly adhered to while carrying out works related to Railway Electrification, cable laying, signal erection work, etc.

1. For any work on or adjoining running line, **Open line will be primarily responsible for ensuring safety of running line.**
2. Before commencing any work related to RE and signal department which may affect track safety should be intimated in writing to SSE(P.Way), ADEN and DEN depicting the nature of work, approximate duration of the work and list of machineries intend to deploy. Engineering work permit should invariably be prepared duly signed by Engineering / RE/signal department.
3. Supervisor in-charge of the work site should be well trained and should possess competency certificate issued by ADEN/DEN.
4. In case of cable laying, cable route diagram should be prepared and counter signed by SSE(P.W) and ADEN of the section.
5. At the time of track crossing of cables by cut and cover method, S&T staff should inform Engineering Department and obtain consent. Engineering Department will ensure all safety precautions during track crossing.
6. The site should be adequately protected with necessary barricading/fencing to the full length of work site.
7. All Safety precautions should be ensured before commencement, during the course of progress and after completion of the work.
8. The Supervisors and other Staff of Railway as well as RVNL/Const. organization/RE Departments should wear required safety gadgets such as phosphorescent jackets, safety shoes, helmets, etc.
9. Necessary Caution Order if required shall be requested for by Engineering Department and shall be arranged by Operating Department.

10. Necessary Caution indication boards, speed boards and termination boards shall be erected at site before commencement of the work.
11. All the necessary protection equipment such as banner flags, HS flags, Tri-color torches, whistle thunder, hooters, megaphone, etc. should be made available at work site before commencement of the work.
12. Adequate number of men should be made available at site for protection as per extant instructions (CE Circular No. 190)
13. No work which will infringe moving dimensions within 3.50 m from center of track shall be done without traffic block.
14. If the work is done from 3.50 m to 6.00 m from center of running line, adequate number of look out men should be deputed and track be protected adequately.
15. If the work is being carried out within station limit, Station Manager should be informed in detail of the work in writing. Supervisory Station Manager should ensure that work is being carried out safely. At road side station, Station Manager should personally ensure that the works are being carried out safely from PF end to PF end on both sides.
16. Before any alteration to alignment or level of electrified track is commenced, due notice of 48 Hr. in advance shall be given to those responsible for the OHE so that OHE may be adjusted to conform to the new condition.
17. If work is to be carried out or any worker is required to come within 2 meters of the 25kv live overhead equipment, a permit to work must be obtained from TRD.
18. When unloading the rails along the track, care shall be taken by JE/SSE(P.Way)/Mate to ensure that the rail do not touch each other to form a continuous metallic mass of length greater than 300 m.
19. PWI will cancel the block to resume the normal traffic only after ensuring that the traction bonds cable jumpers, bond wires etc. have been reconnected by TRD and S&T staff.
20. All bonds removed by the staff of the Engineering department shall be replaced by the staff of the Engineering department and all such removals and replacements shall be reported to the Assistant Electrical Engineer/Traction Distribution in-charge concerned without delay. Also, after replacement of rail, drilling of rails for bonding should be done by Engineering department.
21. If it is noticed that any work is being carried out without proper protection or Safety precautions by any agency, work should be stopped immediately.

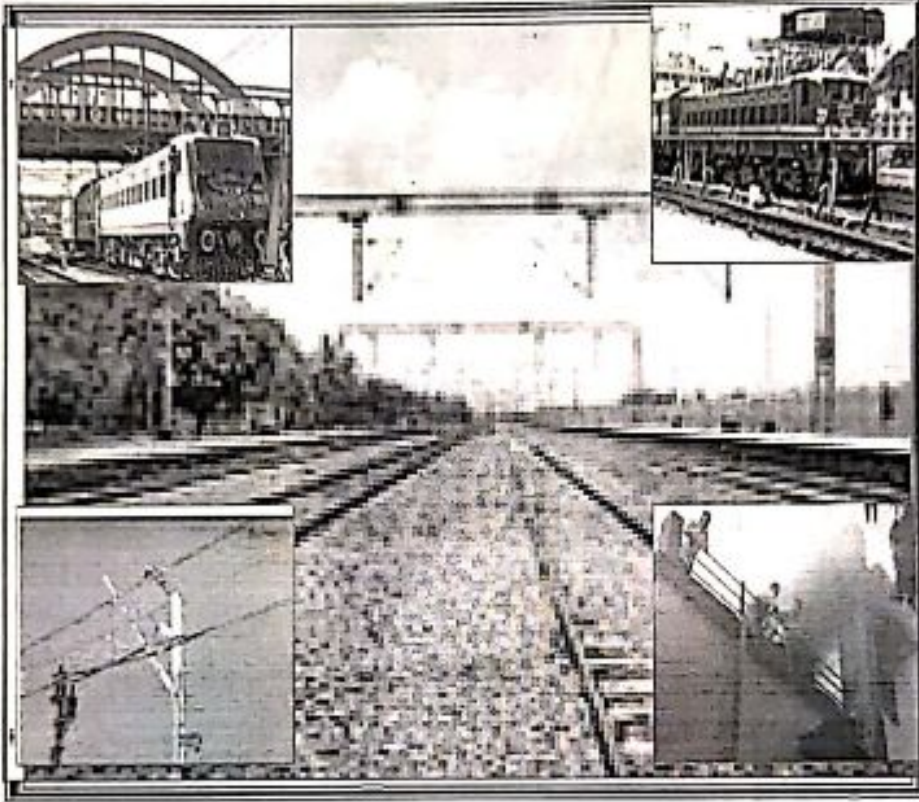

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संरक्षा शाखा
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
06/2021-22



विषय:- विद्युतीकृत क्षेत्र में संरक्षा सावधानियां ।

Sub:- Safety precaution in OHE Territory.

दिनांक Date 29.06.2021

SAFETY CIRCULAR -06/2021-22

All concerned /SUR

Sub:- Safety precaution In OHE Territory.

OPTG

1. Warn all staff about the danger of coming in close contact to the live traction overhead wires within 2 meters.
2. Warn travelling public about the hazards of travelling on foot boards and on roofs and projecting bodies outside the compartments.
3. Report at once to SCOR about any abnormal working of signal equipment/ block instrument.
4. Always use warning collars when power blocks are granted.
5. Don't allow any electric loco raised pantograph into a dead section / unwired turnout.
6. Don't allow any traffic into the section where OHE is snapped or obstructing traffic unless the obstructions/infringements are removed & clearance issued by Traction Staff.
7. Don't depute the staff to work on a signal where protected screen is not provided without obtaining PERMIT TO WORK from the authorized Traction staff.

C&W

1. Use side filling arrangements to water carriages.
2. Don't climb on roofs of carriages, wagons or engine over electrified track unless the overhead track conductors are made dead and earthed and PERMIT TO WORK is obtained from authorized traction staff.
3. Don't direct water hydrants towards overhead traction wires.
4. Do not operate the crane near overhead traction wires, unless the authorized representative of OHE section is present.

S&T

1. To avoid danger due to induced high voltages in the S&T circuits when the length of parallelism to track is appreciable, Staff should wear rubber gloves and use tools with insulated handles.
2. Don't touch any snapped/loosely hanging traction wires under any circumstances.
3. Don't disturb track bonding, earthing or S&T installations etc.

LOCO

1. Do not climb on the roof of diesel locos.
2. Do not pass through snapped/hanging loose overhead conductor, any traction structures. Do not proceed till obstructions are removed by the authorized traction staff.
3. Do not open the Hood Flap doors of Diesel Loco under OHE.

ENGG..

1. In case of wire snaps at a level crossing, the Gate keeper shall immediately make arrangements to stop all Road traffic and inform the nearest SM and/Traction Power Controller.
2. Maintain continuity of rails of electrified track during maintenance and track renewal works by providing temporary metallic jumpers of approved design as indicated in Para. 665(2)IRPWM.
3. The two ends of fractured rail should be temporarily connected by metallic jumpers of approved design taking necessary precautions. Rubber gloves should be used while connecting rail ends with jumpers.
4. Don't touch any fallen/hanging wires under any circumstances until it made dead and earthed by traction staff.
5. Don't use steel measuring tapes or long metallic wires/rods on the electrified track.
6. Don't use rails as foot path, a seat or for such other purposes.
7. Don't carry long pipes ladders, vertically which will come within the danger zone of 2 meters of live overhead traction equipment.
8. Don't allow the rails to touch each other to form continuous length greater than 300 meters while these are unloaded along the track.
9. For work adjacent to overhead equipment the Engineering Inspector shall apply to the proper authority sufficiently in advance for sanctioning the traffic and power block required.

10. The following Standard formats given vide Para. 20628 of ACTM should invariably be filled up in every case of S&T and Engineering work on or near AC Traction Electrical Equipment.
FORM No. ETR – 3, Part – A, Part – B, Part – C, Part – D.
11. Working of Cranes :- No crane shall be worked except on the authorised "permit-to-work". In every case of working a crane, arrangement should be made for the presence of authorised overhead equipment staff to ensure that all safety precautions are taken.
12. The setting distance of the structure should not be affected during slewing of track.
13. The track level should not be raised beyond the permissible limits during track works.
14. No part of the tree shall be nearer than 4 mts from the nearest live conductor.

TRD

1. Obtain "permit to work" before commencing of work within 2 metre on any live part of OHE.
2. The person who has taken "permit to work" (power block) from TPC, same person should cancel " permit to work (power block) after completion of work from TPC
3. Permit to work (power block) is to be taken in message book by exchanging the private number with TPC by field staff & for cancellation of power block same procedure is to be followed.
4. Discharge/Earthing pole assembly shall be inspected by SE/JE once a month & check the continuity of cable connection.
5. Staff should neither sit nor stand under ATD.(balance weight)
6. Do not stand on contact wire while working resulting kink from under swivel clip.
7. More than one person shall not be allowed on a ladder.
8. Always use safety belt & industrial helmet for safety.
9. Climb on roof of tower wagon only after obtaining permit to work (PTW) from TPC.
10. Use of old extension to ladder should be avoided.
11. Do not wear loose cloth such as kurta pazama, lungi, safi, chappal etc while working.
12. Don't use metallic ropes, use only manila ropes.
13. Always provide discharge rod on both sides while working on Tower wagon.
14. Always wear rubber sole shoes while working.
15. Use a rope to pass tools, equipment to the man working on a ladder.
16. Ladder should never be allowed to fall on or rest against the contact wire.
17. Use rubber hand gloves during operation of isolators.
18. Ladder should be held by one person on the ground, while the top end should be tied to the supporting structure/rope.
19. Even when earthing is provided by isolator switches with earthing heels, additional temporary earths shall also be provided on both side of the isolator.
20. Climbing on a ladder with wet or slippery foot wear is forbidden.
21. Ladder should not be used for transportation of material.
22. No one should stand directly below a work spot under a ladder.
23. There shall be no tree within 4 meter of OHE.
24. Don't stand on bracket tube/insulator while maintenance of OHE.
25. Don't use steel tape/metallic tape or tape with woven metal reinforcement in electrified track.
26. First fix earthing clamp to rail/mast of discharge/earthing pole assembly, test top clamp on RT/BT, hook top clamp on contact wire.
29. To remove earth, first remove discharge rod hook from OHE & then remove earth clamp from rail/mast.

All Staff

1. Safety shoes should be of rubber sole without any Metallic nails.
2. Umbrella's with metallic handle should not be used under electrified area.

All concerned to note and act accordingly.

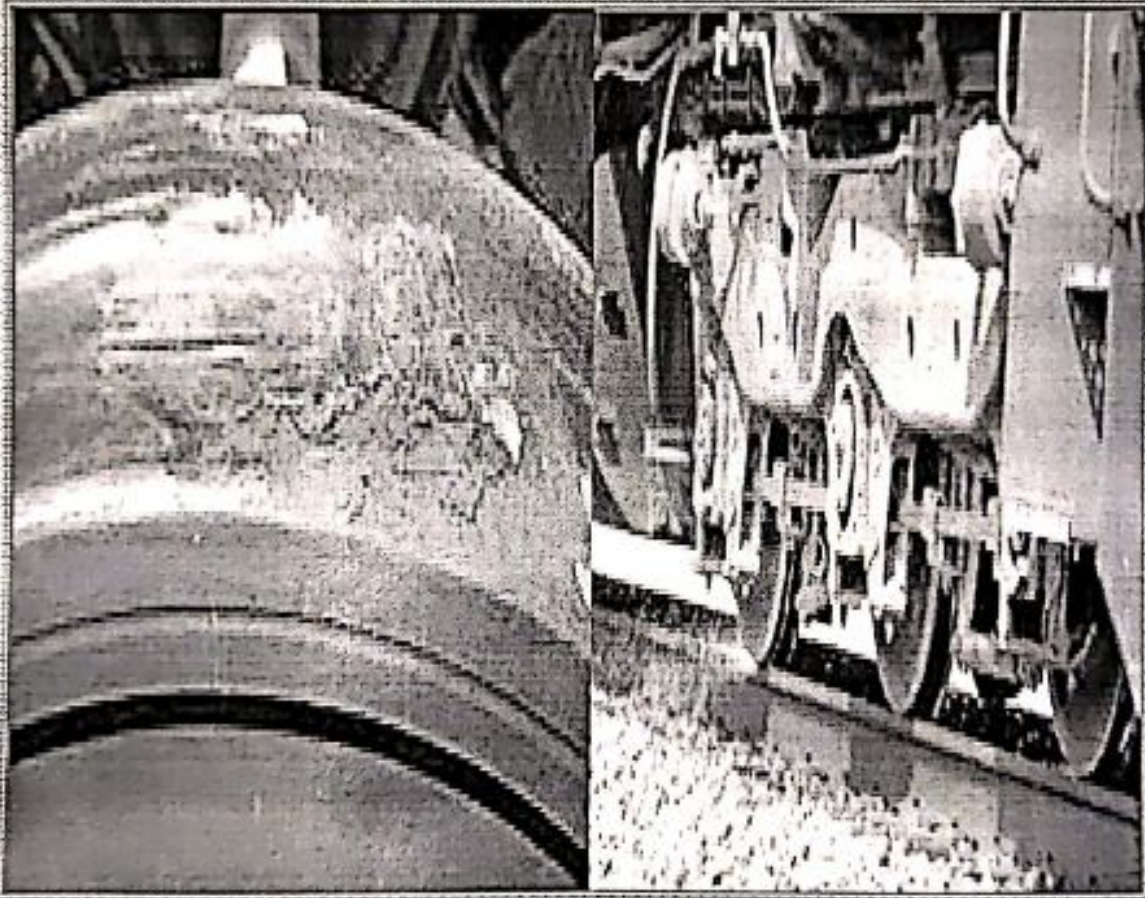

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Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
07/2021-22



विषय: फ्लैट पहिया घटना की रोकथाम

Sub:- Prevention of incidence of Flat Wheel.

दिनांक/Date : 13.07.21

All concern/SUR Division

SAFETY CIRCULAR NO.07/2021-22

SUB: Prevention of Incidence of Flat Wheel.

There have been several instances where flat tyre has been caused extensive damage to track by causing rail fractures and weld failures resulting in to serious accidents.

A. PREVENTIVE MEASURES

- (i) The TXR staff in Depot/sick lines must check the flatness of wheel tread with the help of tyre defect gauge. The permissible flat on wheel tread is limited to 60 mm for goods and 50 mm for coaching stock/locomotive. All train examination staff should adhere to the provisions of Rule 2.8.4, 3.2.2 and 'S' 4.21.1 "Tyre defects" of part IV IRCA Conference rules for coaching stock and Para 4.18.1 of Part 3 of IRCA conference Rules for Freight Stock.
- (ii) Proper Functioning of distributor valves in wagons/coaches shall be ensured at depots by field units at every examination point.
- (iii) Before movements of loads from loading / unloading points, it should be ensured by the train crew that all wagons are in released condition including hand brakes.
- (iv) Follow the load table and related conditions as pr JPO from Sr.DME, Sr.DEE & Sr.DOM dt. 27.07.2020.
- (v) While working load from Roadside stations, the train crew should ensure release of hand brakes.
- (vi) LP to ensure that air flow indicator white needle coincide with fixed reference needle.
- (vii) Loco pilot shall ensure proper release time in Goods and Passenger trains after each brake application before moving.
- (viii) Working of sanders and availability of sand shall be checked before starting train so that stalling of train can be prevented.
- (ix) Loco pilot shall demand banker in case he is not confident to clear the gradient.
- (x) Loco Pilot shall not take undue efforts to clear the section once the train is stalled. It must be ensured that load is fully released before taking traction.

B. DETECTION OF FLAT TYRE

- (i) The Loco pilot and Guard should be vigilant in detection of unusual / hammering sound in the formation.
- (ii) Carriage and wagon staff during 'Rolling In/Rolling Out Examination' at all major train examination points to detect flat face on wheel tyre in train while in motion.
- (iii) At stations where C&W staffs are deployed for checking of under gear at exit and entry points should also be vigilant to detect flat tyre in passenger and goods trains passing through the stations.
- (iv) Station Operating staff, while exchanging all right signals shall be vigilant and attentive to hear any unusual / hammering sound in the running train and make efforts to stop and examine the train. If they hear such sound, they should start counting the location of such a wagon (counting it as one) till the brake van. It will demarcate the location of such a wagon in moving train and communicate it to control and next station.
- (v) Traffic / Engineering Gatemen and Engineering gangs shall also be vigilant and attentive to hear any unusual / hammering sound on a running train. They should communicate the matter to SM of the station ahead.

- (vi) Engineering staff and Supervisors while at work site or doing trolley inspection should also be vigilant to detect any unusual / hammering sound on a running train. They should adapt necessary steps to stop the train at the station ahead and get the wagon / coach / loco examined.
- (vii) On board staff like TTEs, Coach Attendants, AC Mechanics and other Supervisors / Officers travelling by the train can also detect any unusual / hammering sound in the respective coach.

C. ROLE OF STAFF AFTER DETECTION OF FLAT TYRE

(a) Loco Pilot and Guard of the train

- (i) On detecting / getting information about the hammering sound on the formation in the block section, the train crew shall cautiously clear the train from the section to station. The train should preferably be admitted in loop line.
- (ii) If no C&W staff is posted at the station and if it is likely to take more time for C&W staff to come, the train crew will examine the train and the extent of wheel flat should be measured by a measuring scale with marking of 50 mm and 60 mm for coaching / loco and wagons respectively. Train crew (LPs, ALPs and Guards) must be trained in measuring the extent of flatness in tyre.
- (iii) If the flatness exceeds the permissible limit, the defective vehicle should be detached or the entire load be moved as is operationally feasible to the nearest point of attention at restricted speed.

(b) Mechanical (C&W) staff

- (i) C&W staff where ever available should examine the train and if flat tyre is confirmed, further action should be initiated accordingly.

(c) Operating staff

- (i) Under no circumstances, ASM shall allow the train to run with a suspected flat tyre, once the information is received.
- (ii) Detachment will be done after flat tyre is certified by LP and Guard after measurement in consultation with section controller in case C&W staff is not available.
- (iii) While stabling loads at road side stations, it shall be stabled in loop line opposite to station building so that passing trains can be observed clearly.

(d) Function of Control Office.

- (i) The section controller after getting information from the SM shall stop the train at the next station where loop line is available for examination by LP and Guard duly taking the advice seriously as reported by stations and advice C&W controller, Deputy Controller and Chief Controller.
- (ii) Deputy Controller shall co-ordinate with Engineering Control and depute the SSE / JE (P.Way) of Engineering department to inspect the rear block section.
- (iii) Controllers to be educated regarding hauling capacity of locomotives and gradient in the section. Load chart and signal 'OFF' condition to be displayed in front of Controllers for their awareness and handy information.

(iv) Bankers shall be provided wherever demanded by Loco pilot.

(e) Engineering Control and P.Way staff.

- (i) Engineering control shall co-ordinate with Traffic Control in alerting SSE / JE (P.Way) and getting the section examined for any probable Weld / Rail failure.
- (ii) In case any flat tyre is confirmed, If necessary USFD testing of rails and welds to be carried out at the earliest.
- (iii) If warranted necessary speed restriction shall be imposed and necessary corrective action shall be initiated.


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Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
08/2021-22



विषय: स्टेशन और ब्लाक खंड में वाहनों/लोड/गाड़ी/लोकोमोटिव को सुरक्षित रूप से रखना

Sub:- stabling and Securing of vehicles/loads/trains and locomotives at stations and in block section.

दिनांक/Date: 30.07.2021

SAFETY CIRCULAR- 08 /21-22

All concerned /SUR divn.

Sub:- stabling and Securing of vehicles/loads/trains and locomotives at stations and in block section.

Ref:- Railway Board's Letter No.2012/Safety/A&R/19/1 dt.24.02.2012.& Railway Board's Alert Advise No.01/2016 dt. 26.07.2016

1. S.R.5.23-1 Stabling and Securing of Vehicles /Train/ Load at station

Action by Station Master/ Traffic staff when vehicles/ Train/ Load is to be stabled at station.

- a) While stabling all vehicles /trains loads standing at a station shall be so placed and secured that they do not and cannot foul any other line.
- b) The vehicles of stable load /train shall be coupled together, in case the stabled load have to be split for any reason, each such split part shall be treated as separate load for purpose of securing.
- c) Vehicles/ Train/ Load shall be chained and padlocked using at least two chains, one at either end. The safety chain shall be passed twice around the trolley frame and rail, and then tie and lock, so that no strain falls on the padlock.
- d) At least 4 wooden wedges be used, two each below the outermost pair of wheels at either end.
- e) Hand brakes of at least 6 wagons from either end shall be fully tightened and handbrakes in brakevan/SLR shall be applied.
- f) The concerned points shall be set, clamp and padlocked against the blocked line and towards the dead end or trap point (if available) and the key to be kept with the Station Master.
- g) Button collars/ lever collars shall be placed on relevant signals and point button /slide/lever etc.
- h) As far as possible, the vehicles/ train/ load shall be stabled on line which is isolated from other lines, particularly running lines.
- i) Securing of vehicles / train/ load shall be done by station staff such as pointsman or any other staff deputed for shunting under personal supervision of Guard or SM/ ASM on duty and in yard, AYM or shunting supervisor.
- j) Remarks shall be made in the TSR and/ or SM's diary in Red ink to the effect that 'Line No.----- is blocked and all precautions for securing the load have been taken as prescribed in the rule'. SM will also make necessary entries in this regard in Stable Load Register.
- k) After any vehicles/ train / load is stabled, the Station Master shall inform the Section Controller under exchange of Private Number that all laid down precautions for stabling and securing the vehicles/ train / load have been taken. Section Controller will make the necessary entries in this regard in Stable Load Register.
- l) After taking charge in each shift, SM/ASM shall depute pointman to ensure that proper securing of stable load is done. Discrepancies noticed, if any, shall be reported to SM and get it rectified immediately.

2. Additional precautions to be taken while stabling vehicles/load/train at a station with gradient of 1 in 400 or steeper may have been prescribed under approved special instructions (by CRS) and mentioned in SWR of respective station. These should be followed scrupulously. In addition, following precautions must also be observed over and above those prescribed under approved special instructions:-

- a) Before vehicles are uncoupled the hand brakes should be applied sprags/wooden wedges/skids should also be used to prevent vehicles from rolling down.
- b) As far as possible, the vehicles/load/train should be stabled on a line which is isolated from other lines, particularly running lines.

3. S.R.4.65-6 PROTECTION OF TRACK MACHINE(S) WHEN STABLED AT STATION:

- i) The Track Machine(s) shall normally be stabled on a non running line.
- ii) While stabling the Track Machine(s), GR 5.23 and SRs there under shall be followed. The Track Machine(s) In-charge shall be responsible for ensuring that Track Machines are stabled by clearing the fouling marks and traps and without obstructing the adjacent lines. He shall apply the hand brakes and wooden wedges to prevent movement.
- iii) The Track Machine(s) shall not move into or inside the traffic yard without written permission (T/806) of SM. Except in emergency, no shunting of Goods /Passenger stock shall be permitted on the line where Track Machines are stabled.

4. **Stabling/securing of Locomotives :-**

A) Action by loco pilot /Asst. loco pilot before leaving the loco in case load/train is stabled with locomotive attached or light engine(s) is /are shut down or stabled.

- a) Application of both SA-9 and A-9 brakes. Remove the reverser handle & handover to authorized person.
- b) Application of hand brake and parking brake, ensure application of hand brake by releasing SA-9.
- c) Secure the loco with at least 04 wooden wedges / skid provided on the loco, two below the outermost pair of wheels according to gradient.
- d) If handbrake found defective then two chains & padlock should be used to secure the Loco at least with two rounds of chain.
- e) Entry all above in repair book, also check the log book for repairs regarding air pressure and seek advice from lobby, PCOR/TLC.

B) For AC Locomotive :-

- a) Stop the Loco after clearing the fouling mark.
 - b) Apply SA9 and put A9 on emergency position.
 - c) Apply hand brake properly check physically hand brakes are applied by releasing SA9, after ensuring working hand brake again apply SA9.
 - d) Apply at least 4 wooden wedges/skid on outermost wheels according to gradient.
 - e) Shutdown the Loco as per procedure (DJ open pantograph down & HBA OFF), check IP cock position and its effectiveness.
 - f) Remove all the key close the door shutters and handover it to convenient authority.
 - g) If handbrake found defective then two chains & padlock should be used to secure the Loco at least with two rounds of chain.
 - h) Entry all above in repair book. Also check the log book for repairs regarding air pressure and seek advice from lobby, CCOR/TLC.
5. a) Loco pilot while on duty should not leave loco unmanned. In case he is required to leave the locomotive unmanned, he should do so only after receiving written authority from the Station Master/ Yard Master and ensuring Item No. 4 (A) & (B) above.
- b) Before leaving the station/yard, the Loco Pilot and Guard should jointly record in register maintained with Station Master that the load & loco has been secured as prescribed.
6. **Action to be taken by Loco Pilot/Assistant Loco Pilot and Guard when the train is stalled in block section due to accident, failure, obstruction or any other reasons:-**
- a) Loco Pilot/Assistant Loco Pilot and Guard should protect the train as per provisions of G&SR 6.03.
 - b) The train should be secured by applying loco brakes(SA-9,A-9 & hand brake) and hand brakes of at least six wagons at either end of the train. The hand brake should be operated by Assistant Loco Pilot from leading end and by the Guard from the rear end. In case the train is being worked without Guard the duties of the Guard shall devolve on the Assistant Loco Pilot. In case of coaching trains, the Guard should apply hand brakes of the SLR in addition to the application of Loco brakes by the Loco Pilot.
7. Station staff, Guard, Crew and Section Controller should be aware of gradients at Stations/Yards/Sidings and block sections.
8. Ensure availability of adequate number of sprags & chains of approved design at stations/Yard and wooden wedges on locos, If handbrake found defective then two chains & padlock should be used to secure the Loco at least with two rounds of chain.

9. As per JPO dated 18.04.2018 responsibility of staff while reversing loco as under :

A) LP & ALP

- 1) Before detaching loco from load, LP should apply A-9 emergency i.e. (Brake pipe pressure should be zero) for application of train brakes.
- 2) While attaching loco shall be brought in line & to be stopped 20 Mtrs before the load and further loco should stop 2 Mtrs before the load.
- 3) Loco shall be moved cautiously at a speed of 3-5 Kmph by existing procedure of shunting.
- 4) Ensure the correct locking of Safety pin.
- 5) After attaching the effectiveness of the coupling shall be checked by the LP slowly by observing and signal of Points man/Guard.
- 6) Conform fro operating staff that wedges have been removed from rear vehicle.

B) Operating / Points man/Shunting Jamadar/Guard.

- 1) After stopping of train, when BP is zero one points man placed 2 Nos of skid / wooden wedges under wheels of both SLRs and to detach coupling and hose pipes. 2nd Points man to move with Loco within 2 to 3 minutes.
- 2) After disconnecting the BP and FP pipe air pressure of coaches shall be drained out by opening BP and FP angle cock of 1st coach by points man before detaching engine.
- 3) Before detaching the Loco from train, apply hand brake in both SLR with should be open by incoming Guard and closing by out going Guard and points man.
- 4) After attaching loco properly ensure the release of brakes in the both SLR and removal of skids / wooden wedges after attaching locomotive.
- 5) Ensure the proper dropping of toggle and proper locking of coupling.


C) C&W

- 1) C&W staff should not release 1st five vehicle where loco will be attaché of the rake before ensuring proper attaching of loco.
- 2) C&W Staff should ensure the release of full load after attaching loco on load before starting of train.
- 3) SLR should be opened by C&W staff before detaching loco so as to apply hand brake incase of berthing of train.
- 4) Liner plate to be removed from CBC of SLR before attaching and fix after attaching loco.

D)Electrical/Power Car Staff

- a) 1) If Train is not on HOG system, then ensure Loco end IVC cable of power car should be placed at proper place.
- 2) Isolating contactor should be switched OFF.
- b) If train on HOG system, connect the UIC/IVC cable properly, ensure the locking of same.

All concerned to please note & act accordingly.


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सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
09/2021-22



विषय: वाकी टाकी सेटों का उपयोग ।

Sub:- Use of Walkie-Talkie Sets.

दिनांक/Date: 12.08.2021

SAFETY CIRCULAR -09/2021-22

All concerned /SUR divn.

Sub:- Use of Walkie-Talkie Sets.

Sub:- Rly Bds L.No 2009/Safety(A&R)/19/29 dtd. 10.03.2010.

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Railway Board vide their letter no. referred above laid down the following, on use of walkie-talkie sets by Loco Pilot, Guard & SM/ASM.

- i) Station Master may communicate on walkie- Talkie for advising abnormalities that require immediate attention by Loco Pilot/Guard for controlling/stopping their train.
- ii) Use of walkie-Talkie sets in no way contravene conditions required to be satisfied for reception/dispatch of a trains as per G&SRs.
- iii) Walkie- Talkie sets should not be used as an alternative to written authority to proceed, authority to pass a defective signal at danger etc.
- iv) These sets shall not be used for communicating the aspect/position of any signal by SM to Loco Pilot/Guard. The Loco Pilot/Guard may advise if the aspect of any signal is "ON".
- v) Walkie-Talkie sets should not be used as an alternative to or replace physical exchange of signals. However, in case of full length trains, in following circumstances, Walkie-Talkie sets may be used for exchange of signals between Loco Pilot and Guard when it is not possible to exchange signals physically and the conditions for exchange have been fulfilled.
 - (a) To dispatch / start the train from a station.
 - (b) To start a train stopped in curvatures/tunnels in block section and
 - (c) On run, when it is not possible due to curvatures or due to geographical lay outs.
- vi) In all above cases where the Station Master or Loco Pilot or Guard uses the Walkie-Talkie, he will clearly mention his identity along with station name/train number while communicating and also confirm the identity of the speaker at the other end.

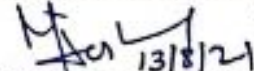
It should be noted that the instructions are in no way in dispensation to GR 4.35(1).

The Loco Pilot shall not start his train from a station without the authority to proceed, and the Guard's signal to start. In conditions of poor visibility like fog, longer composition of train and at curves or under other circumstances where physical exchange of all right signals between Guard and Loco Pilot is not practically feasible, the exchange of signal has now been permitted over Walkie-Talkie sets as mentioned in para (vi)above.

S.R.5.13-1(b) (iii) Shunting Operations –

During unsignalled shunting movement, before negotiating the points, Loco Pilot must ensure that all right signal is exhibited from the concerned points enroute by shunting supervisor/Pointman as an assurance of correct setting and locking of points (During pushing back shunting movement, if Loco Pilot is unable to observe Hand signal due to lengthier load, curvature, any obstruction etc., arrangement for repeating the hand single from suitable place as visible to Loco Pilot shall be made or confirmation for correct setting and locking shall be given on Walkie-Talkie supported with Private Number and name with designation by shunting supervisor/pointsman)

Supervisors/Officers should periodically conduct surprise checks as a part of their routine inspection regarding use of walkie-talkie sets by Station Master and running staff. Cases of violation of above instructions and short-out methods adopted should be dealt with firmly.

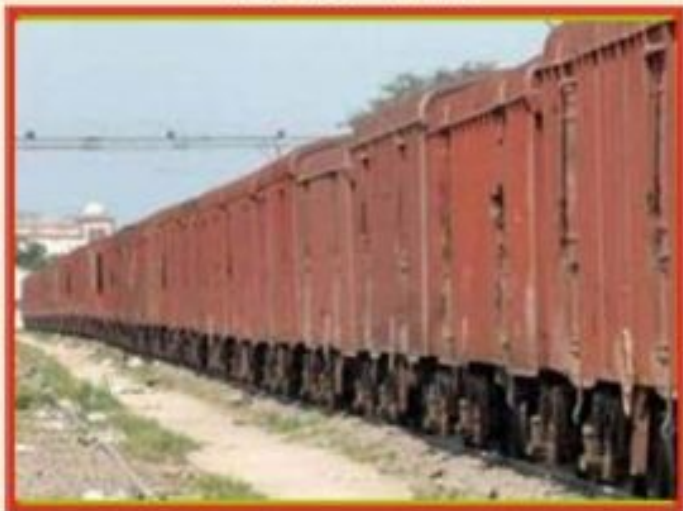

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संरक्षा शाखा
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
10/2021-22



विषय: गार्ड ड्राइवर रिपोर्ट (जीडीआर) की जांच और डोअर वर्किंग के संबंध में अनुरोध ।

Subj:- Instructions regarding Guard Driver (GDR) check and door working.

दिनांक/Date : 31.08.2021

SAFETY CIRCULAR - 10/21-22

All concerned /SUR

Sub:- Instructions regarding Guard Driver (GDR) check and door working.
Ref :- Railway Board's Lr.No. 2018/M(N)/951/34 pt. Dt.23.06.2020

Instructions regarding Guard Drive (GDR) check, at locations where TXR is not available, have been advised for the various conditions, in which GDR checks have to be conducted by crew along with the prescribed performa to be filled by train crew post such check :

1. After loading/back loading of a rake
2. After tipping
3. After rake is stabled for more than 24 hours
4. If BPC is invalid
5. If it is a premium rake, which is being loaded or unloaded.

In view of repeated instances of doors opening on run and leading to infringements & damage to assets. Accordingly, it is advised to take immediate action in the matter to ensure that various staff involved ensure the activities and responsibilities as given below :

A . GUAD & DRIVER (CREW)

- Hence forth GDR will be required to be done in all cases of unloading/loading of rakes, irrespective of method of loading/unloading as well as type of BPC, so as to ensure all the doors and fitting of wagons have been properly secured and there is no possibility of them turning loose on run.
- Closure of doors should always be checked by train crew before drawing out a rake from a terminal as part of the prescribed GDR check. Updated performa to be filled up after GDR check is enclosed herewith.
- Closure of doors should also be checked and ensured during GDR check and same recorded in the GDR memo.

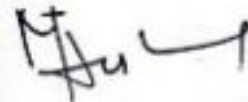
B.OPERATING AND COMMERICAL STAFF ON DUTY AT SIDINGS/TERMINALS :

- Release memo of rakes should be accepted by operating/commercial staff only after proper closure of doors has been ensured by the siding/handling agencies. This may be explicitly mentioned in the release memos.
- In case it is not feasible to close the doors in the terminal due to door defects, it should be and C&W attention provided for closing such doors at an operationally convenient location

- Operating staff concerned shall assure themselves that GDR check has been done before drawal of the rake and GDR memo has been signed as prescribed.

C. MECHANICAL DEPTT STAFF:

- Train Examination Yard staff – At the time of rake examination by C&W staff for issue of a fresh brake power certificate, proper closure of doors should be ensured and this should be explicitly mentioned in the brake power certificate issued for all wagon types having doors, like BOXN, BCN, BOBRN, BCACBM etc. The examination gangs should clearly endorse by hand or by Rubber Stamp the following – All doors checked & found working.
- POH SHOPS, ROH DEPOTS & SICKLINES : During repair/overhaul it shall be ensure that all defects and deficiencies are attended to properly.



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CHECKS TO BE DONE BY GUARD AND DRIVER

Item to be checked by Guard and Driver

1	All CBCs and Air Hoses are properly coupled and locked
2	All the Angle cocks are in open condition.
3	The last Angle cock is in closed condition.
4	Empty/Load device handle is in proper position
5	There is no loose fitting/ hanging parts like springs push-pull rod, Brake Beam, Safety Brackets, Brake Blocks etc. Which may endanger safe running of the train.
5a	Any parts of wagon or Loco protruding outside & infringing SMD.
6	Hand brake are released.
7	All Doors/ Hoppers/Covers of wagons are closed and locked / secured.
8	Check continuity of air pressure/ vacuum before starting.
9	Wagon loaded with ODC/Military consignment/Steel consignment , then check its lashing, packing, ODC sanction etc, before start.

Proforma for Joint check by the Driver and Guard

1	DATE & PLACE	
2	Train No & Loco No.	
3	From	TO
4	BPC NO, Date & Place of issue	
5	Loaded at	Unloaded at
6	Time Loco attached	
7	Total Load	

Signature of Driver

Signature of Guard

Driver's Name

Guard's Name

(This memo should be prepared in 3 copies, one copy to be kept with Driver, one with the Guard and one will be given by the Guard to the Station Master /Yard Master)

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Safety Branch
Solapur Division

संरक्षा परिपत्र

Safety Circular

11/2021-22



विषय: सिगनलों को वापस लेने की कार्यविधि – संबंधित
अनुदेशों के सार.

Sub:-Procedure for putting back signals-Extract of
relevant instructions.

दिनांक/Date : 17.09.2021

Central Railway

No.SUR/SFT/S/103

D.R.M's Office
Safety Branch,
Solapur.
Date: 17.09.2021

SAFETY CIRCULAR - 11 /2021-22

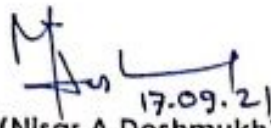
All concerned / SUR.

Sub:- Procedure for putting back signals – Extract of relevant instructions.

S.R.3.36-2.

- a) Signals once taken 'OFF' for the passage of a train, must not be replaced to 'ON' before the complete passage of train in ordinary course.
If, in an emergency, a signal has to be put back to 'On' position before the passage of the train, no points set for it's passage, shall be moved until the train has been brought to a stand. However, in extreme emergency, points can be altered to avert an accident.
- c) In case Starter and Advanced Starter signals have been taken 'OFF' for departing trains i.e. trains starting from station after coming to stop, are required to be put back for the purpose of movement of another train (precedence or crossing), the following precautions must be taken :
 - i) Relevant Starter and Advanced Starter signals may be replaced to 'ON' position. Then the Loco Pilot of the train for which the signal had been taken 'OFF' should be advised by on duty ASM/Dy.SS through a secured means of communication to the effect that his signal has been replaced to 'ON' and he should not start.
 - ii) On single line section, the 'Authority to proceed', if any, handed over to the Loco Pilot, must be withdrawn.
 - iii) Whenever secured means of communication is not available the Loco Pilot shall be advised through a written memo that his signal has been replaced to 'ON' and he should not start.
 - iv) Till the Loco Pilot has been advised through a secured means of communication or through a written Memo and his acknowledgment received, the route set should not be altered except to avert an accident.

All staff to note & act accordingly.


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Safety Circular

12/2021-22



विषय: पावर ब्लॉक और टॉवर वैन संचालन के समय ली
जानेवाली सावधानियाँ

Subject:- Precaution to be taken while working power
block & Tower wagon.

दिनांक/Date: 22.09.2021

SAFETY CIRCULAR - 12/2021-22

All concerned /SUR

Sub:-Precaution to be taken while working Power block & Tower wagon.

G R 17.04 Permit –to- work on electrical equipment – If work is to be carried out adjacent to the electrical equipment or any other part thereof by other than the competent railway servant, such work shall be done only when and for such time as the person-in-charge of the work has obtained a written permit-to-work, duly signed and given by the railway servant authorised for the purpose by special instructions. He, in turn, shall issue the same only with the knowledge of the Traction Power Controller.

G R 17.08 Tower Wagon – The rules for the movement and working of tower wagons shall be laid down by special instructions.

S.R. 17.08-1

- (a) A Tower Wagon is to be treated like a train and shall be worked without a Guard. The duties and responsibilities for protecting the train/track and other duties of the Guard shall devolve on the OHE Supervisor (JE/SSE(TRD)) accompanying the Tower Wagon.
- (b) Whenever it is necessary to work a Tower Wagon(s) either for the maintenance of OHE or attending to the site of Break Down or for any other reason, the JE/SSE(TRD) of Tower Wagon(s) shall advise the Station Master/Cabin Assistant Station Master/ Cabin Master about the movement of Tower Wagon(s) on Annexure I (TRD/1708). SM will advise the same to Section Controller.
- (c) Section Controller shall permit Power and Traffic block as requisitioned by TPC and repeat the same with Train Notice number to the concerned Station Masters and obtain Private Numbers. After getting permission from SCOR, SM will issue Block Permit(in two copies) as per Annexure II (T/1708A) to JE/SSE(TRD).
- (d) Working of Tower wagon(s) during Power and Traffic block : Following movements will be Permitted Not-Permitted :

Absolute Block System		
	Work and Proceed	Work and Return
Double line (Right line)	Permitted	Permitted
Double line (wrong line)	Not- Permitted	Permitted
Single line	Permitted	Permitted

In Automatic Block System :- Automatic Block Territory will be treated as Absolute Block Territory and Tower Wagon(s) will be permitted as mentioned above.

- (e) While working in block minimum 200 m distance to be maintained between Tower Wagon(s) and it may be reduced depending on site working condition by taking necessary precautions.
- (f) Procedure to be adopted during the block - Despatch and Reception procedure as mentioned in S.R. 4.65-3 shall be followed.
- (g) Cancellation of block : After completion of the work, the official incharge of the Tower Wagon(s) shall certify about clearance of the section and initial against the relevant entry in the Train Signal Register in token of the section having been cleared of all Tower Wagon(s).
- (h) A Tower Wagon shall not be permitted to enter the section following a train in Absolute Block Signalling Territory, however, in case of integrated block, one or more Tower Wagon(s) can be permitted in block along with Material Train/TRT/PQRS, TMMs and S.R. 4.65-4 in this regard shall be followed.
- (i) Tower Wagons have a key role in the maintenance of OHE and for attending to break downs. As such, as soon as, the programmed and sanctioned work is completed they shall be returned to their base depot with the utmost expedition in as much the same way as an Accident Relief Train.
- (j) T/806 shall be issued for Tower Wagon(s) movement within station section.

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Solapur Division

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Safety Circular
13/2021-22



विषय: धुंध एवं कोहरे में बरती जाने वाली सावधानियाँ

Sub:- Precautions during Fog.

दिनांक/Date: 14.10.2021

All concerned /SUR Division

SAFETY CIRCULAR No 13 /2021-22

Sub:- Precautions during Fog.

1. Station Staff:

- Availability of Visibility Test Object (VTO) as per SWR.
- Availability of adequate Number of Fog Signal Men.
- Availability of Fog Signal Post at a distance 270m in rear of first stop signal of your station.
- Availability of adequate No. of detonators (must be within expiry period).
- Depute fog signaller with detonators to place two detonators at 270-280 meters from first stop signal.

2. Guard:

- Tail lamp, side lamps & HS lamp are lit up.
- Adequate no. of detonators are available.
- Prescribed personal and Brake Van safety equipments are available
- A red tail lamp of approved design displaying a flashing red light, during day & night, to indicate last vehicle check device in foggy weather should be provided and lit on the last vehicles.

3. Loco Pilots:

- Head Light, marker light & HS lamp have put 'ON.'
- The train is running at a speed at which it can be stopped short of any obstruction.
- The speed of the train shall not exceed 60 kmph in any circumstances.
- Prescribed personal and Loco Safety equipment are available.
- Appropriate action is taken when flasher light of an approaching train is seen.
- Frequent use of Whistling & being vigilant.
- In case fog safe device is not available in locomotives or the device fails en route the maximum speed of 75 kmph shall be reduced to 60 kmph or less subjects to judgments of Loco Pilot.
- First stop signal location kilometer chart of every station be provided to each Loco Pilot either as an easy to carry card or in the Working Time Table.
- Prevailing Fog situation should be advised to Crew & Guard in lobby during "Sign ON".

4. P.Way Staff:

- Availability of Fog Signal Post at a distance 270 m in rear of first stop signal of a Station .
- Fog signal post to be painted in zebra colour Lime painting to be done in between two sleepers across the track beside of fog signal post.
- All Whistle Boards, Fog Signal posts, LC gates are painted with prescribed colours brightly & with luminous strips to improve their visibility.

5. S&T staff:

- All signal are properly cleaned & focus adjusted.
- VTO post is painted with prescribed color and illuminated during night.
- All signal Sighting Boards are painted with prescribed colours brightly & with luminous strips to improve their visibility.

6. Elect staff:

It should be ensured that retro reflective strip in sigma shape for identification of stop signal be provided.

Note:

- It is further advised to refer GR&SR 3.61, 4.08-3, 15.05, 15.09 etc. of G&SR (1999 edition) regarding train working in foggy weather.


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Safety Branch
Solapur Division

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Safety Circular
14/2021-22



विषय: ट्रैक के अनुरक्षण में शीत ऋतु के पूर्वोपाय एवं शीत ऋतु की तैयारी

Sub:- Winter precautions in maintenance of track and winter preparedness.

दिनांक/Date : 21.10.2021

SAFETY CIRCULAR – 14 /2021-22

All concerned / SUR divn.

Sub : Winter precautions in maintenance of track and winter preparedness.

A. Awareness

1. Steps should be taken to enhance the awareness among the field officials regarding USFD and winter precautions.
2. ADENs to interact with the gangs and JE/SE(P.Way) and explain about the importance of winter precautions. A safety seminar shall be arranged at sub-divisional level to discuss and assess winter preparedness as well as action to be initiated in case of weld/rail failure.
3. SSEs/JEs(P.Way) shall carryout inspections covering platform lines at major stations, corrosion prone areas, major and important bridges, SEJs, Glued joints, Points and crossings, tunnels, high banks and their approaches.

B. Preventive measures

i) USFD testing

1. Need based USFD testing of rails and welds of all sections need to be ensured.
2. Periodical testing of AT welds as per USFD manual should be done with updating of records in TMS.
3. Ensure that all AT welds on approaches of major/important bridges and their approaches for a length of 100 m on either side shall preferably be done before onset of winter (frequency is once in a year)
4. One round of gauge face corner testing of rails to be carried out before onset of winter.
5. Fracture prone sections are to be identified and USFD inspection has to be increased.
6. All 'D' marked rails and rails of single rail should be tested with additional gain of 10 db.
7. Hand probing or single rail tester should be used on sharp curve.

ii) Visual examination.

Preventive visual examination of rails and welds should be carried out as per the schedule given below to detect any crack/breakage in rail and weld.

1. Fish-plated joints and joggled fish-plated welds of main line - Twice in a year with an intervening gap of five to six months.
2. Rail ends of landing rail of main line crossings – Once in three months.

Fish plated joints

- Fish plated joints shall be opened, cleaned thoroughly with the help of wire brush and examined with the help of mirror and magnifying glass.
- It should be ensured that chamfering of all fish bolt holes is done.
- Oiling and greasing of fish plated joints shall be done after examination of the joints

Joggled fish plated welds

- Joggle fish plated welds shall also be opened, cleaned thoroughly with the help of wire brush and examined with the help of mirror and magnifying glass.
- Chamfering of bolt holes shall be ensured
- Risers if any present in AT welds shall be ground.
- After examination, weld collars shall be painted with anti-corrosive paint

iii) Ensuring provision of Joggled Fish Plates on therm it welds as per criteria.

It should be ensured that JFPs are provided with two far end bolts on welds as per criteria at following locations.

1. Rails which have completed 50% of stipulated service life
(52kg, 72 UTS= 175 GMT ; 52 kg, 90 UTS=260 GMT; 60 kg, 90 UTS=400 GMT)
2. Welds which are having more than 15 years of age.
3. On curves sharper than 3°.
4. On major and important bridges and on their approaches for a length of 100 m on either side.
5. In cuttings deeper than 5 m.
6. On embankments higher than 5 m.
7. In tunnels and 100 m approach on either side.
8. On defective marked welds during USFD testing.
9. On new welds till they are tested good by USFD(to be secured by JFP and 4 Nos tight clamps).

At locations mentioned in items 4 and 7, OBS and DFW(O) marks to be treated as IMR.

Preventive measures - general

1. At all fish plated joints, 1 m long fish plates should invariably be provided.
2. Standard junction Joggled fish plates should be provided at all junction welds. Requirement of junction JFP for such locations to be submitted well in advance.
3. TWR work should be taken up on priority in identified fracture prone stretches.
4. De-stressing of LWR at identified locations shall be taken up immediately. However the condition of rails for any corrosion, particularly in the liner contact area of the rail foot must be checked and de-stressing should not be done where rails corroded in liner contact area. Where the depth of corrosion is less than 2 mm, de-stressing may be carried out at a lower temperature.
5. Suitable SR shall be imposed on stretches where foot corrosion is quite severe, especially where the liner contact area is shifted and is in suspended condition.
6. Zero Missing Fitting (ZMF) shall be ensured

C. Preparatory measures

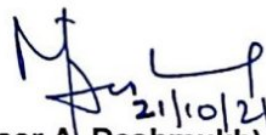
1. Sufficient spare joggled fish plates shall be provided (say at every 500 m), At all LC gates and near gang tool boxes duly lubricated.
2. Joggled fish plates with clamps shall be provided on one of the rails at every 500 m. in single line and in double line every one km separately. However the locations shall be selected in such a way that it is staggered for every 500 m.
3. Colour coding of JFPs shall be done as envisaged in CE circular No.179 for easy identification and use.
4. For repairing fractures, the rail which is to be inserted should be USFD tested before putting in track. A stock of such USFD tested rails shall be kept for meeting the requirements while repairing fractures.
5. Roster of Keymen shall be revised from November- March (say, 06.00 hrs to 11.00 hrs& 14.00 hrs to 17.00 hrs.
6. All arrangements for Cold weather patrolling should be made. Patrolman should be provided with GPS Trackers as per Railway board's Letter no. 2017/CE – II/TK/Policy Pt. dated 17.11.2017 for monitoring and to facilitate quick communication. Cold weather patrolling shall be organized to commence from November and last up to end of March where instances of rail/weld failures are more.
7. Similar to monsoon patrolling, Patrol charts should be prepared. Copy of which should be available in patrol book and stations concerned.

8. The beat length and man power deployment may be decided depending on local conditions, frequency of trains, weather conditions etc.
9. Keyman should be regularly counseled and monitored for ensuring the following special duties and responsibilities in LWR territories during winter months:
 - (a) To keep a sharp look out in cold morning during winter to detect any fractures.
 - (b) To take prompt action to protect the track and carry out emergency repairs to permit the restoration of traffic promptly and report to JE/SSE/P.Way and nearest station master
 - (c) To keep a special watch on the rails and welds marked for observation by the USFD team.
 - (d) For imposing caution order after stopping the first train and pass at a speed of 10 kmph and 20 kmph for subsequent trains for safety. Keyman should be provided with proforma slips by SSE/P.Way. Keyman after filling location and speed, will hand over the same to Driver or ASM and obtain acknowledgement.
10. The patrolman shall obtain signature of gateman en-route in his beat apart from SM/SMs of the stations.
11. Night foot plate inspection programme shall be framed including all SSEs/JEs(P.W) of the ADEN subdivisions. Required documents shall be issued to the supervisors permitting them to travel on Engines (Locomotives)
12. Special patrolling may also be carried out in identified stretches where corrosion of rail is quite severe, in addition to normal winter patrolling.
13. System of patrol books and signatures on the patrol book at the check points to be ensured. Promptness of cold weather patrolling shall be checked by ambush checks by road.
14. A close watch on rail temperature shall be kept. Cold weather patrolling should be started when rail temperature falls below $t_d - 30^\circ \text{C}$.
15. Night patrolmen and Keymen are to be trained and counseled for taking necessary precautions for passing trains at the fracture location where the gap is up to 30 mm

D. Action on detection of rail/weld failure

1. After detecting a rail/weld failure, action shall be initiated to suspend the traffic immediately and track should be protected.
2. After emergency repairs arrangements shall be made for repairing the tracks.

As an incentive, suitable rewards shall be given to night patrolman who detects rail/weld failure between 00.00 hrs. and 05.00 hrs.


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Safety Branch
Solapur Division

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Safety Circular
15/2021-22



विषय : डिरेलमेंट की रोकथाम के लिए समय पर हॉट एक्सल का पता लगाना

SUB: Timely detection of Hot Axle to prevent derailment.

दिनांक/Date: 19.11.2021

SAFETY CIRCULAR - 15 /21-22**All concerned /SUR division**

Sub :- Timely detection of Hot axle to prevent derailment.

When the vehicle runs for considerable distance in hot axle condition, it is possible for train passing & running staff to detect it. **The symptoms of Hot axle and action to be taken are reiterated for guidance of train passing staff:**

Day Time	Night time
While not in motion / in Slow motion	
1. Smell of Burning grease or rubber pad (EM pad) & Splashing of grease on wheel disc. 2. Light smoke from axle box & feeling hot. 3. Dis-coloring of axle box face plate. 4. Axle box cover cut, bulged or missing. 5. Burning of over axle box.	1. Light Smell of Burning grease or rubber pad (EM pad) 2. Hotness of axle box by feeling. 3. Axle box cover becomes Red-Hot. 4. Glowing of axle box. 5. Flame from axle box
While Run through	
1. Axle may get locked and wheel skidding. 2. Screeching sound & Smell of Burning grease. 3. Dislocation of axle box face plate. 4. Vibration of wagon/trolley	1. Sparks on rail due to skidding. 2. Screeching sound. Smell of burning Grease. Axle box cover becomes Red Hot. 3. Burning of EM pad & flame over axle box and dislocation of face plate. 4. Vibration sound of wagon trolley.

Duties of staff

1. **Station staff :**
 - i. Check for above symptoms while train passing.
 - ii. Exhibit hand danger signal immediately.
 - iii. Put back the departure signal. Advise the train crew through VHF set to stop & examine the train.
 - iv. Alert the gate man in advance to stop the train.
 - v. Advise the Controller to arrange to stop the train as early as possible.
 - vi. Advise the SM of station in advance not to allow any train in section in opposite direction with exchange of private no.(if any)
2. **Train Crew :**
 - i. Look out while running on curves for any symptoms unusual.
 - ii. Stop the train by first means.
 - iii. Examine the effected vehicle.
 - iv. Exercise your discretion and take decision.
 - v. LP/Guard should watch carefully the signals exhibited by station staff, gateman, gang man, other Railway staff and act immediately to control speed.

3. P.Way & S&T Staff :

- i. Be vigilant while train is passing through .
- ii. Inform about any unusual noticed in train to the nearest station master/controller.
- iii. Show danger signal and try to alert the Guard by shouting / waving.
- iv. Arrange to stop the train immediately

4. Gateman:

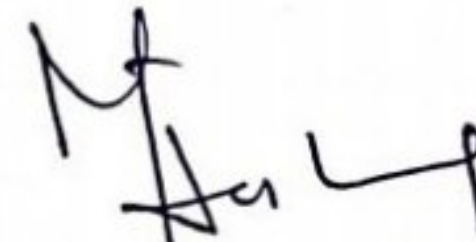
- i. Watch the passing through trains carefully.
- ii. Exhibit danger signal & alert the guard to stop the train immediately.
- iii. Advise the station master to stop the train immediately.

5. Section controller:

- i. Arrange to stop the train if hot axle on train is reported by field staff and station staff.
- ii. Inform to concerned departments and get it examined by Guard & Driver/Station staff.
- iii. Train should be stopped and checked as soon as possible for any symptoms noticed.
- iv. Such trains should be allowed to enter station only after it is checked.

6. C&W staff :

- i. Carry out carefully rolling in and rolling out examination on all trains at nominated stations/yards.
- ii. Feel the axle boxes immediately by NCT Gun on arrival of trains.
- iii. Detach the vehicle if hot axle is noticed and axle box temperature in beyond 80° C.


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संरक्षा विभाग
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
16/2021-22



विषय: शंटिंग का नियंत्रण एवं शंटिंग की जिम्मेदारी.

Sub:- Control of Shunting and Responsibility for Shunting.

दिनांक/Date: 25.11.2021

SAFETY CIRCULAR -16/2021-22

All concerned /SUR divn.

Sub: - Control of Shunting and Responsibility for Shunting.

GR 5.13 : - Control of shunting –

1. Shunting operations shall be controlled by fixed Signals or Hand signals or by verbal directions.
2. The Loco Pilot shall not however, depend entirely on signals and shall always be vigilant and cautious.
3. The speed during shunting operations shall not exceed 15 Kmph an hour unless otherwise authorized by special instructions.

SR 5.13-1 : - Shunting Operations –

- (a) Shunting must be performed under the supervision of properly authorized operating staff only. At stations, other than roadside stations, where separate shunting staff is provided the Station Working Rules will clearly lay down to whom this duty devolves. The lowest level of staff to supervise the shunting of passenger and mixed trains should be Shunting Jamadar.
- (b) (i) At roadside stations, the Guard in charge of a train must personally supervise all shunting connected with his train, under instructions from the Station Master.
(ii) The Guard, who is in charge of the shunting, shall ensure that the points are correctly set and locked, where necessary, for the shunting and he himself shall exhibit hand signals to the L.P.
(iii) During unsignalled shunting movement, before negotiating the points, Loco Pilot must ensure that all right signal is exhibited from the concerned points enroute by shunting supervisor / Pointsman as an assurance of correct setting and locking of points (During pushing back shunting movement, if Loco Pilot is unable to observe Hand signal due to lengthier load, curvature, any obstruction etc., arrangement for repeating the hand signal from suitable place as visible to Loco Pilot shall be made or confirmation for correct setting and locking shall be given on Walkie-Talkie supported with Private Number and name with designation by shunting Supervisor/Pointman)
- (c) The shunting of a train from one line to another across the main line, when necessary, shall be conducted by Guard under the Station Master's instruction and Guard must travel in his Brake van while a train is being shunted. During the period Guard is travelling in the Brake van the shunting shall be conducted by a Pointsman.
- (d) At a class 'B' station shunting may be performed within the station section, provided the respective Home signal is maintained in the 'On' position. At a class 'B' station on the single line, shunting may be carried on between the first Stop signals without 'blocking back' the line, provided 'Line Clear' has not been given for a train to approach.

GR 5.14 :- Responsibility for shunting –

The Station Master shall see that the shunting of trains or vehicles is carried on only at such times and in such manner as will not involve danger.

SR 5.14 -1 (a) :- Shunting will be performed only by the Engine Loco Pilot on the instructions of the Station Master, Yard Master, Guard, Shunting Master or whoever may be incharge of shunting operations. Clear instructions should be given to the staff conducting shunting including the train crew.

(b) (i) :- The station Master or the person authorized to give instructions for shunting operations shall issue an authority on Form T-806 for shunting of all trains, from a running line to a siding, from siding to a running line, from one line to another or on the same line if such shunting fouls the facing and trailing points at either end. This form shall be signed by the Guard/Shunting Supervisor and the Loco Pilot.

However, in major yards other than road side station where separate shunting staff is provided and regular shunting movement takes place within the defined area, issue of shunting authority T-806 be dispensed with.

(ii) It is the responsibility of the Guard to acquaint himself with shunting restrictions before the commencement of shunting.

(c) The person, who initially given instructions for shunting operations, shall not change instructions and authorise the changing of points etc., unless he has satisfied himself that shunting operations have been stopped completely and the staff conducting shunting have been advised of the changes contemplated.

(d) (i) The maximum permissible shunting speed is 15 kilometres per hour. When shunting or marshalling of wagons loaded with petrol, Kerosene Oil, Liquid Fuel, Spirit and other highly inflammable liquids in bulk or packed in tins or drums, or wagon loaded with acids, gases, poisonous (toxic) substances, explosives and oxidising substances the speed is restricted to 10 kilometre per hour.

(ii) Maximum impact speed when shunting a single BOX wagon must not exceed 5 KMPH, while maximum impact speed when shunting a group of five box wagons coupled together with transition couplers at either end should not exceed 2 KMPH.

(iii) The securing of vehicles after shunting should be done by station staff, such as, Pointsman, or any other staff deputed for shunting, under personal supervision of the train Guard or SM/ASM on duty or the person in-charge of shunting.

(e)(i) Signalled Shunting movement-

Shunting movement will be done by taking off concerned signal(s) / shunt signal(s).

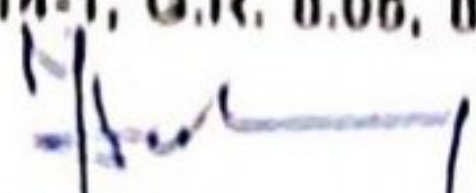
(f) Fixed signals except Home and last Stop signal may be taken 'off' of shunting purposes.

(g) Hand signals should be shown in such a manner as to be clearly visible to the Loco Pilot. If hand signals are shown from a Cabin, such signals must be repeated by the person in charge of shunting operations from the ground. The Loco Pilot shall act only on the latter's signals

However, in case movement is done by taking off fixed signal / shunt signal the display of hand signals is not necessary.

(h) The person incharge of shunting operation must see that conflicting signals, are not shown to the Loco Pilot, and whenever possible, instead of exhibiting a sudden stop signal, a warning signal should be shown to enable the Loco Pilot to slacken speed.

- (i) When shunting has to be performed on a train with two engines, one engine only must be used to do the work except in case of two diesel or electric engines coupled together to form one multiple unit and when operated by one Loco Pilot only, subject to local restrictions, if any, imposed in sidings and elsewhere.
- (j) Screw couplings must not be allowed to hang down and drag during shunting operations. Air hosepipes must be placed on Air Brake hose coupling support before the screw coupling is unhooked.
- (k) While shunting all vehicles shall be connected with Air brake system of Engine so that brake power can be maintained.
- (l) Carriages occupied by passengers must not be moved for shunting purposes without the personal instructions of the Station Master and also the Guard of the train concerned, who will jointly be responsible for taking all precautions, to warn passengers and to prevent accidents either to the passengers in the carriages or to those attempting to get into or out of them under the impression that the train is starting. The Guard shall have the air brake connected up and see to the correct setting of points over which shunting is performed. Whenever shunting is to be performed for attaching or detaching coaches or when an engine is to be coupled to a passenger carrying train, the coaches/ engine must first be brought to stop 20 metres away from train and thereafter shunting be performed carefully.
- If any Engine, other than that involving shunting with passenger carrying train, is required to be brought in rear of the passenger carrying train, it should be accompanied and hand signaled by shunting staff and stopped in rear of passenger carrying train at a minimum separation distance of 50 metres between the train and the Engine.
- (p) In air braked load, close the angle cock of both the wagons/ coaches from where the load is to be divided and angle cock of wagons/ coaches detached from Engine, shall be opened to avoid rolling down. In air braked load close the angle cock of both the wagons/ coaches from where the load is to be divided and after detaching engine from wagons/ coaches, angle cock of detached wagons/ coaches shall be opened to avoid rolling down.
- (q) Shunting instructions given by means of T/806 shall remain in force till completion of shunting, even though other train movement is done by stopping the shunting at any stage.
- (r) While performing shunting movement, if any signal(s) or Shunt signal(s) become defective, same shall be authorized to pass at 'On' by issuing Private Number to Loco Pilot / Shunter and exhibiting alright hand signal from the concerned signal by Shunting supervisor, after ensuring correct setting and locking of enroute points.
- (s) Shunting which does not involve any attaching or detaching and involve signaled movement from one location to another will be done by Loco Pilot / Shunter on verbal instructions of SM on duty for this no shunting staff is required to be accompanied. Loco Pilot / Shunter shall follow the aspect of concerned signal(s) and instructions given by SM on duty.
- (t) While pushing back in shunting movement on line terminating in Dead End, train must be stopped 20 meters before the Dead End and then shall be pushed back cautiously so that bumping with Dead end can be avoided.
- (u) While clearing stable load wooden wedges, safety chains shall be removed and hand brakes be released only after taking load/train on pressure.
- (v) Shunting with Electric Engine / Diesel Engine with dual cab shall be performed from leading cab.
- Please refer G&SR Rule No. GR 5.13, BR 5.13-1, GR 5.14, BR 5.14-1, G.R. 0.05, 0.06, 0.08, 0.09, 0.10, 0.12 and 0.13.


(Nishu A. Deshmukh)
Br.DSO/Bolapur

संरक्षा विभाग
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
17/2021-22



विषय: रेल ब्रेकेज अथवा रेल/वैल्ड खराबी के मामले में की जाने वाली कार्यवाही।

Sub: Action to be taken in case of rail/weld failure or rail breakage.

दिनांक/Date : 15.12.2021

All concerned /SUR Division

SAFETY CIRCULAR No. 17 /21-22

Sub:- Action to be taken in case of rail / weld failure or rail breakage.

Procedure to be followed in case of lurch, rail/weld failure on track as prescribed in G & SR 1999 edition is re-iterated below for the guidance and strict adherence by the staff related to train operation.

Duty of Loco pilot.

S.R.6.07(1) Defective Permanent Way.

In the event of the Loco Pilot and / or Guard experiencing any abnormal condition in the track over which his train has passed and he considers that the portion of the track over which his train has passed is detrimental for safe running of subsequent trains he will take action as under :-

- (a) Stop his train at next block station without clearing the block section, whistle frequently and inform the Station Master through available means of communication not to permit any train from either end of the affected block section in case of single line and from the rear in case of double line. In case of IBS and automatic block territories, the Loco Pilot must inform the Station Master and Loco Pilot of trains already left station in rear through available means of communication to stop movement of trains.
- (b) Proceed further, only after satisfying himself that Station Master has clearly understood so as not to permit further movement over the line until a written memo indicating the details of occurrence is received by Station Master from the Loco Pilot. Loco Pilot will then again stop in such a manner that the engine is in front of the station building or the Block Cabin where the Block Instruments are located so as to deliver the written memo in detail to Station Master.

Duty of SM/ASM in affected station:-

S.R.6.07(1) Defective Permanent Way -

- (c) The Station Master on receipt of such a Memo must issue a message addressed to Station Master of the block station at the other end of the block section and Junior Engineer/ Sr. Section Engineer (P.Way) Assistant Divisional Engineer, Divisional Engineer, Chief Controller and Divisional Operations Manager.
- (d) Arrange to dispatch a rail maintenance machine / tower wagon/ light engine or in their absence a train accompanied by engineering official with a caution order to the effect to "Stop Dead" sufficiently short of the expected portion of the track. The engineering official accompanying will inspect the track and shall allow the train to

pass only after satisfying that the track is safe for the passage of train. Advise the condition of the track and any restriction of speed to be imposed to the Station Master personally or through written memo which may be sent through the Loco pilot.

- (e) In absence of engineering official the train with a caution order instructing the Loco Pilot to "Stop Dead" before the affected kilometer and after satisfying himself about the condition of track, pass over the track in question at 10 KMPH or if he finds the line is unsafe to pass, return to station in rear. If the Loco pilot is not able to detect any thing doubtful, subsequent trains shall be dispatched with a speed restriction of 10 KMPH over the affected track till the track is certified to be safe by engineering officials.
- (f) If the condition as reported earlier is confirmed by the Loco pilot, no train movement shall be allowed till certified to be safe by engineering officials.

Duty of Guard of train:- In case the Guard of the train experiences any abnormal occurrence in the track while working his train, he must inform the Loco Pilot of his train through walkie-talkie or other available means of communication between the Loco Pilot and the Guard about the occurrence, after which the Loco Pilot shall take action as mentioned in SR 6.07 (1) (a) above. In the event of Guard Unable to contact the Loco Pilot, he should take action to stop the train and inform the Loco Pilot.

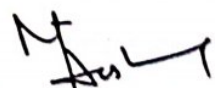
Duty of Engg Department

- i) On receipt of Lurch, Rail/Weld failure message from divisional control, SM/ASMs of station or any other source rush to the site with the first available Tower wagon/ Light engine or train going to the site,
- ii) On arrival at the site, the engineering official will inspect the track and shall allow the train to pass only after satisfying that the track is safe for the passage of train. Advise the condition of the track and restriction of speed to be imposed to the Station Master personally or through written memo, which may be sent through the Loco Pilot.

iii) SR 15.17-1

In the event of rail/weld failure, the keyman/Gangmate/P.Way Supervisor or Patrolman, shall, after protecting the line, make necessary emergency repairs to the track and pass traffic at 20 KMPH. The temporary/permanent repairs to track shall be done by the JE/SSE(P.Way) as soon as possible and restore traffic at normal speed.

All concerned to please note & act accordingly.


(Nisar A. Deshmukh)
Sr.DSO/Solapur

संरक्षा विभाग
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Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
18/2021-22



विषय :- विद्युतीकृत क्षेत्र में संरक्षा सावधानियां ।

Sub:- Safety precaution in OHE Territory.

दिनांक/Date 27.12.2021

SAFETY CIRCULAR -18/2021-22

All concerned /SUR

Sub:- Safety precaution in OHE Territory.

Ref:- 1)JPO PCEE/CR & PCSO/CR's Lr. No. L.249/EV/Elect. Accident dt. 19.11.2021

2)PCEE/CR's Lr. No. L/249/EV/Elect. Accident Dt.23.11.2021.

OPTG

1. Warn all staff about the danger of coming in close contact to the live traction overhead wires within 2 meters.
2. Warn travelling public about the hazards of travelling on foot boards and on roofs and projecting bodies outside the compartments.
3. Report at once to SCOR about any abnormal working of signal equipment/ block instrument.
4. Always use warning collars when power blocks are granted.
5. Don't allow any electric loco raised pantograph into a dead section / unwired turnout.
6. Don't allow any traffic into the section where OHE is snapped or obstructing traffic unless the obstructions/infringements are removed & clearance issued by Traction Staff.
7. Don't depute the staff to work on a signal where protected screen is not provided without obtaining PERMIT TO WORK from the authorized Traction staff.

C&W

1. Use side filling arrangements to water carriages.
2. Don't climb on roofs of carriages, wagons or engine over electrified track unless the overhead track conductors are made dead and earthed and PERMIT TO WORK is obtained from authorized traction staff.
3. Don't direct water hydrants towards overhead traction wires.
4. Do not operate the crane near overhead traction wires, unless the authorized representative of OHE section is present.

S&T

1. To avoid danger due to induced high voltages in the S&T circuits when the length of parallelism to track is appreciable, Staff should wear rubber gloves and use tools with insulated handles.
2. Don't touch any snapped/loosely hanging traction wires under any circumstances.
3. Don't disturb track bonding, earthing or S&T installations etc.

LOCO

1. Do not climb on the roof of diesel locos.
2. Do not pass through snapped/hanging loose overhead conductor, any traction structures. Do not proceed till obstructions are removed by the authorized traction staff.
3. Do not open the Hood Flap doors of Diesel Loco under OHE.

ENGG.

1. In case of wire snaps at a level crossing, the Gate keeper shall immediately make arrangements to stop all Road traffic and inform the nearest SM and/Traction Power Controller.
2. Maintain continuity of rails of electrified track during maintenance and track renewal works by providing temporary metallic jumpers of approved design as indicated in Para. 665(2)IRPWM.
3. The two ends of fractured rail should be temporarily connected by metallic jumpers of approved design taking necessary precautions. Rubber gloves should be used while connecting rail ends with jumpers.
4. Don't touch any fallen/hanging wires under any circumstances until it made dead and earthed by traction staff.
5. Don't use steel measuring tapes or long metallic wires/rods on the electrified track.
6. Don't use rails as foot path, a seat or for such other purposes.
7. Don't carry long pipes ladders, vertically which will come within the danger zone of 2 meters of live overhead traction equipment.

8. Don't allow the rails to touch each other to form continuous length greater than 300 meters while these are unloaded along the track.
9. For work adjacent to overhead equipment the Engineering Inspector shall apply to the proper authority sufficiently in advance for sanctioning the traffic and power block required.
10. The following Standard formats given vide Para. 20628 of ACTM should invariably be filled up in every case of S&T and Engineering work on or near AC Traction Electrical Equipment.
FORM No. ETR – 3, Part – A, Part – B, Part – C, Part – D.
11. Working of Cranes :- No crane shall be worked except on the authorised "permit-to-work". In every case of working a crane, arrangement should be made for the presence of authorised overhead equipment staff to ensure that all safety precautions are taken.
12. The setting distance of the structure should not be affected during slewing of track.
13. The track level should not be raised beyond the permissible limits during track works.
14. No part of the tree shall be nearer than 4 mts from the nearest live conductor.

TRD

1. Obtain "permit to work" before commencing of work within 2 metre on any live part of OHE.
2. The person who has taken "permit to work" (power block) from TPC, same person should cancel " permit to work (power block) after completion of work from TPC
3. Permit to work (power block) is to be taken in message book by exchanging the private number with TPC by field staff & for cancellation of power block same procedure is to be followed.
4. Discharge/Earthing pole assembly shall be inspected by SE/JE once a month & check the continuity of cable connection.
5. Staff should neither sit nor stand under ATD.(balance weight)
6. Do not stand on contact wire while working resulting kink from under swivel clip.
7. More than one person shall not be allowed on a ladder.
8. Always use safety belt & industrial helmet for safety.
9. Climb on roof of tower wagon only after obtaining permit to work (PTW) from TPC.
10. Use of old extension to ladder should be avoided.
11. Do not wear loose cloth such as kurta pazama, lungi, safi, chappal etc while working.
12. Don't use metallic ropes, use only manila ropes.
13. Always provide discharge rod on both sides while working on Tower wagon.
14. Always wear rubber sole shoes while working.
15. Use a rope to pass tools, equipment to the man working on a ladder.
16. Ladder should never be allowed to fall on or rest against the contact wire.
17. Use rubber hand gloves during operation of isolators.
18. Ladder should be held by one person on the ground, while the top end should be tied to the supporting structure/rope.
19. Even when earthing is provided by isolator switches with earthing heels, additional temporary earths shall also be provided on both side of the isolator.
20. Climbing on a ladder with wet or slippery foot wear is forbidden.
21. Ladder should not be used for transportation of material.
22. No one should stand directly below a work spot under a ladder.
23. There shall be no tree within 4 meter of OHE.
24. Don't stand on bracket tube/insulator while maintenance of OHE.
25. Don't use steel tape/metallic tape or tape with woven metal reinforcement in electrified track.
26. First fix earthing clamp to rail/mast of discharge/earthing pole assembly, test top clamp on RT/BT, hook top clamp on contact wire.
29. To remove earth, first remove discharge rod hook from OHE & then remove earth clamp from rail/mast.

All Staff

1. Safety shoes should be of rubber sole without any Metallic nails.
2. Umbrella's with metallic handle should not be used under electrified area.

All concerned to note and act accordingly.


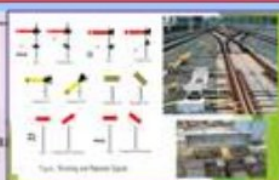
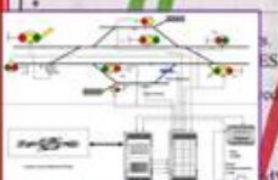
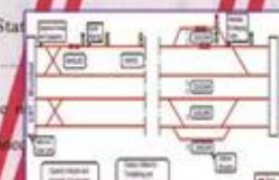



Sr.DSO/Solapur

संरक्षा विभाग
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र
Safety Circular
19/2021-22

FORM NO.S&T/DN RAILWAY Signal & Telecommunication Department Reconnection Notice		FORM NO.S&T/DN RAILWAY Signal & Telecommunication Department Reconnection Notice	
			
No. _____		No. _____	
To The Station Master or Cabinman on duty at Station/Cabin _____		To The Station Master or Cabinman on duty at Station/Cabin _____	
For disconnecting the following gear : * _____		For disconnecting the following gear : * _____	
			
SM/Cabinman _____		SM/Cabinman _____	
Disconnection will be allowed at _____ hrs.		Disconnection will be allowed at _____ hrs.	
on _____/_____/20		on _____/_____/20	
Reconnected at _____ hrs. on _____/_____/20		Reconnected at _____ hrs. on _____/_____/20	
SM/Cabinman _____		SM/Cabinman _____	
M/JE/SE (Sig) _____		M/JE/SE (Sig) _____	
at _____ hrs.		at _____ hrs.	
SM/Cabinman _____		SM/Cabinman _____	
			
Date _____		Date _____	
Signature _____		Signature _____	
Designation _____		Designation _____	

संरक्षण विभाग - सिग्नल एवं दूर संचार गियरों के डिस्कनेक्शन तथा रिकनेक्शन संबंधी कार्यविधि

Sub:- Procedure for Disconnection and Reconnection of S&T Gears.

दिनांक Date 06.01.2022

SAFETY CIRCULAR - 19 /2021-22.

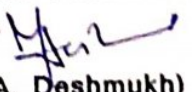
Sub:- Procedure for Disconnection and Reconnection of S&T Gears.

Ref:- Adviser(Signal)'s D.O. letter no.2012/Sig/Safety/Performance/1 dated 22.10.12.

Signal Maintenance and repair works should be done only under Disconnection Notice as per provisions contained in para 3.8.4 of IRSEM (June 21) (version 3.0). The Signal Maintenance staff should indicate duration of requirement of disconnection to SM on duty. Disconnection for durations upto one hour should normally be allowed by the ASM/Dy.SS on duty depending upon trains in the section in consultation with section controller. If disconnection Notice is not allowed by Station Master, it should be requisitioned again by S&T maintenance staff and allowed by Control depending upon the flow of traffic in the section. Otherwise, the available slot may be indicated by the Control to the S&T staff.

- (a) In extreme emergencies, if the maintenance/repair of S&T gears is urgently required to avoid an accident, the same may be suspended with the approval of Sr.DSTE.
- (b) For works requiring disconnection of more than one hour, a Disconnection Schedule Jointly signed by Sr.DSTE, Sr.DOM, Sr.DEN & Sr.DEE/TRD should be issued and notified to all concerned. The progress of the joint Schedule should be reviewed periodically.
- (c) For Disconnections/Maintenance likely to last for more than a day-
 - (i) Temporary Working Instructions must be issued.
 - (ii) The Station Master on duty shall be responsible for ensuring that all the points over which the train is to pass are correctly set, facing points are clamped and pad-locked and trailing points are correctly set. However, in case of motor operated points, trailing points must also be clamped and pad-locked.
 - (iii) S&T staff may restrict the aspect of signals to give only yellow aspect as permitted in Temporary Working Instructions. Thereafter, the Station Master may take off the signals after ensuring correct setting and locking of points, as per para (ii) above.
 - (iv) Temporary Engineering Indicators with speed indicator of 15 kmph may be placed at the site.

All are advised to ensure that instructions are followed and no shortcuts are allowed under any circumstances. Requisite resources and inputs may be ensured to improve the level of safety during repair and maintenance of signaling gear.


(Nisar A. Deshmukh)
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संरक्षा विभाग
सोलापुर मंडल



Safety Branch
Solapur Division

संरक्षा परिपत्र

Safety Circular
20/2021-22



विषय: आग दुर्घटनाओं की रोकथाम

Sub:- Prevention of fire incidences.

दिनांक/Date: 24.01.2022

SAFETY CIRCULAR - 20 /21-22

All concerned /SUR

Sub:- Prevention of fire incidences .

Recently incidences of fire on trains/locomotives/ Railway premises are reported over Indian Railways. Safety precautions to avoid fire related cases are reproduced below for strict compliance-.

Mechanical department (C&W) -

- a. Ensure availability of fire extinguishers in SLR, Loco, Pantry cars, & periodical testing & refilling.
- b. Ensure gas pipeline in pantry car is thoroughly checked for any leakages as per schedule.
- c. Ensure gas regulators, flame arrester and pressure gauge are in working order.
- d. Ensure pasting of unified posters on prevention of fire having telephone numbers of security control.
- e. Ensure use of fire retardant furnishing material.
- f. Ensure repairs to broken ceilings and panels in coaches during maintenance.
- g. **Ensure locking of Rakes/coaches at station / yards.**
- h. Ensure proper maintenance to avoid unusual of brake binding , hot axle etc.
- i. Fire balls to be kept in DG room of power cars.
- j. Ensure filling of fire buckets with sand & water which are to be kept near IOH, ROH/ sheds, at pit lines at office premises.
- k. C&W staff should be trained regularly for handling for fire extinguishers/fire balls in case of emergency.
- l. Ensure working & operation of fire detection & suppression system provided in power cars.

Electrical department -

- a. Maintenance of electrical devices in the passenger coaches and parcel vans must be carried out adequately.
- b. Check earth leakages in all coaches during primary maintenance and rectify if found leakages.
- c. Desired standard of wiring should be used in electrical junction boxes to avoid chances of fire due to electrical short circuit.
- d. In case of emergency, electrical supply from the adjoining coaches to be made for a short period only in case of unavoidable circumstances.
- e. Ensure schedule replacement of cables/wiring, HRC fuse, MCBs & other fire safety items.
- f. Ensure locking of rotary junction box (RJB) covers.
- g. Ensure provision of fire extinguishers in AC coaches & Power Car their refilling dates.
- h. **Provide training on operation of fire extingulsher to AC mechanic and attendant.**
- i. Ensure removal of garbage like Gutka pouch, polythene bags, bidi/ cigarette buds and burnt match sticks inside the junction box, AC coach control panels and in the ceiling near fans during maintenance.
- j. Rewirable fuses should not be used in junction box.
- k. Cable termination should be done by lugs only.
- l. Main supply of Moblie charging points should be switched OFF from 23.00 hrs. to 5.00 hrs. in AC coaches.

Commercial Department -

- a. Ensure proper loading of parcels in SLR/VP's so that minimum 6 inch space is left between electric lamps of the roof and the top layer of the packages.
- b. Ensure that lights are switched "Off" in SLR/VP's before sealing to avoid short circuit.
- c. Ensure that the petrol tanks of motorcycle, scooter, moped etc are empty before booking.
- d. Do not book Red tariff luggage such as explosive, dangerous, inflammable articles, empty gas cylinders, dry grass and leaves, waste papers, acids, corrosive substances by passenger train.
- e. Smoking is strictly prohibited during loading/unloading of parcels in SLR/VP's.
- f. **Make frequent announcement "Not to carry inflammable material in trains", for public awareness.**
- g. Ensure that passages and doors of coaches are not blocked with luggage etc in moving train.

Operating department -

- a. Guards must ensure that all the lamps in the luggage compartment of brake van are switched "Off".
- b. Loading/unloading of packages in SLRs should be done under proper supervision.
- c. In case of stopping train – Loco pilots/Assistant Loco Pilots and Guards of train stopped at station/section, will observe the train passing on adjacent line in same/opposite direction and exchange all right signals and attract the attention of the Loco Pilot/Assistant Loco Pilot or Guard of the other train, by exhibiting danger hand signal, should any condition be noticed on that train which may endanger its safety.
- d. ASMs must watch trains on run and in case of fire stop immediately.
- e. Special care to be taken for trains carrying explosives and inflammable articles.
- f. **Do not stable trains with explosives and inflammable articles enroute without proper protection.**
- g. ASM's must ensure fire buckets provided at station are in good condition filled with water & sand.

Security Department-

- a. **Check entry of unauthorized passengers & unauthorized vendors in the train compartments.**
- b. Conduct random check as a preventative action against carriage of inflammable / explosive materials by passenger carrying trains.
- c. Conduct surprise checks for smoking in trains.
- d. Educate and make passengers aware of the fire hazards through P.A. system, pamphlets & posters.

Precautions to Prevention of Fire in Locomotives:-

1. Ensure proper fitment of HP tube protection plate at each FIPs(Fuel injection pump).
2. Locomotives fitted with oil bath filters should not have any leakage of oil from oil pan.
3. Exhaust manifold & turbo super charger are not having any air leakage.
4. The fuel cross over pipe is properly secured with lamps & there is no leakage.
5. The engine drain holes are clean & there is no accumulation of oil/water in expresser/compressor room & engine room.
6. Ensure that there is no leakage of Fuel/lube/water.
7. The air duct boots of all TMs are in good condition.
8. Ensure proper functioning of Dynamic Blower motor.
9. Ensure proper joints of all cable joints.
10. Ensure proper cleaning of locomotives.

Duties of Front Line Staff In Case of Fire:-

1. Stop the train immediately.
2. Arrange the stretcher and first-aid box for the injured passengers.
3. Arrange for isolating the affected coaches.
4. Report it to the nearest station/control/fire station.
5. Provide anti rolling arrangement on the isolated coaches and train as well.
6. Render first aid to injured passengers.

All station staff, train crew and running staff must be aware of the location of availability and operation of fire extinguisher provided in stations, locos, AC coaches, Pantry cars and Brake vans.


Sr. DSO/Solapur

संरक्षा विभाग
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Safety Branch
Solapur Division

संरक्षा परिपत्र Safety Circular 21/2021-22



Caution: There are 420 level crossing gates in the Solapur Division of which 210 are manned and 190 unmanned.
— PHOTOGRAPH



विषय: समपार फाटकों की सामान्य विशेषताएं और फाटकवाले के कर्तव्य।

Sub:- General features of L.C.Gates & duties of Gateman.

दिनांक/Date : 14.07.2022

SAFETY CIRCULAR -21/21-22**All concerned /SUR****Sub: General features of L.C.Gates & duties of Gateman.****General Features of L.C.Gates**

- ❖ Traffic census of level crossing gates shall be taken periodically once in every three years. The census shall be carried out by a multi disciplinary inspectorial team consisting of representatives of Engineering, S&T and traffic departments.
- ❖ As per TVU, LC gates are classified as,
 - i. 'Special' class - TVU greater than 50,000.
 - ii. 'A' class - TVU between 50,000 and 30,000.
 - iii. 'B1' class - TVU between 30,000 and 25,000
 - iv. 'B2' class - TVU between 25,000 and 20,000
 - v. 'C' class - All other level crossings for road not covered in above classes.
- ❖ Train Vehicle Unit shall be worked out by taking traffic details of 24 hrs continuously for 7 days. Train units X Road vehicle unit is calculated by considering trains, four wheelers, bullock carts and tongas as one unit, cycle rickshaw and auto rickshaw being taken as half unit and motorized two wheelers are being taken as 0.25 unit.
- ❖ Overhauling of all level crossing gates laid on PSC sleepers shall be done once in every 2 years.
- ❖ Minimum length of check rails in LC gate shall be 2 meters more than the width of the road (Overlap of minimum 1m. on either end)
- ❖ Minimum distance of gate posts from center line of track is 3 m.
- ❖ One speed breaker of standard design shall be provided on either side of LC at a distance of 20 m from gate post.
- ❖ In electrified territory height gauges with a vertical clearance of 4.67 m should be provided at a minimum distance of 8 m. from gate posts. Luminous board indicating 25000 V should be provided on height gauges. The road surface shall be of the same level between gate posts and continued beyond height gauges.
- ❖ Road surface should be level up to 15 m. or beyond in class I roads and 8 m. in case of other classes of roads.
- ❖ Whistle boards should be provided for trains at a distance of 600 m. from LC gates.
- ❖ Effective wicket gates should be provided at all manned level crossings.
- ❖ Availability of luminous type Road sign boards should be ensured
 - i. Double strip - At 200 m.
 - ii. Single strip - between 50m. to 100 m.
 - iii. Gate warning board - With in Railway boundary.
 - iv. Speed breaker board - 5 m. to 10 m. from speed breaker.
- ❖ Luminous type stop boards should be provided on gate booms.
- ❖ Gate boom locking arrangement should be effective.
- ❖ Height of gate boom from road surface should be between 0.8 m to 1 m.

DUTIES OF GATE GATEMAN

- He should be in proper uniform.
- He should have valid competency certificate, validity of which will be three years.
- He should be conversant with gate working instructions.
- He should perform duty strictly according to the roster.
- He should take sufficient rest before reporting for duty.
- While taking over charge he should ensure that all equipment of gate are available in good condition.
- Never leave the L.C gate before arrival of reliever. In case of emergency, if required to leave the gate, he shall lock the gate lodge before leaving. In non-interlocked Engineering gates, he should close and lock the gate booms also.
- Always keep the check rail channel for flange of wheels clean. Where gate is operated from cabins, this will be done by Keyman. In all other gates this will be done by gate keeper himself.
- If he notice any defect in gate booms, road surface, etc. he should report promptly to higher authorities.
- He should not allow any trespassing at the level crossing.
- At Non-interlocked Engineering gates, under no circumstance should he give private no to Station Master before ensuring closure of the gate, locking the gate booms and removing banner flag during day time and red lamp during night time.
- After giving private number to Station Master, Gate keeper should stand alert at nominated place (mutton) and should not allow trespassing.
- Under no circumstances the gate should be opened after closing the gate and issuing private number to station master. After issuing private number/ taking off the gate signals he should stand attentively and should not allow any trespassing.
- Private number sheet should be kept always under safe custody of Gate keeper.
- At non-interlocked level crossing gates, ensure that red banner flag during day and red lamp during night is placed across the track whenever the gate is kept open for road traffic.
- At gates where sliding booms are provided, it's proper functioning should be tested on every Monday and record of which should be maintained in a register.
- In electrified territories always ensure that height gauges provided are not damaged.
- GK should always ensure that general up keep of his gate is good.
- Please clean the Solar Panel daily with the help of Rod provided by Electrical Department.
- In case of non working of solar light please inform to Electrical control office solapur-55178/ 8600257376 & SSE/Electrical maintenance concerned.

Safety Precaution in OHE Territory.

- Warn all staff/Public about the danger of coming in close contact to the live traction overhead wires within 2 meters.
- In case of wire snaps at a level crossing, the Gate keeper shall immediately make arrangements to stop all Road traffic and inform the nearest SM and/Traction Power Controller.
- Maintain continuity of rails of electrified track during maintenance and track renewal works by providing temporary metallic jumpers of approved design as indicated in Para. 665(2)IRPWM.
- The two ends of fractured rail should be temporarily connected by metallic jumpers of approved design taking necessary precautions. Rubber gloves should be used while connecting rail ends with jumpers.
- Don't touch any fallen/hanging wires under any circumstances until it made dead and earthed by traction staff.
- Don't use steel measuring tapes or long metallic wires/rods on the electrified track.

During passage of train

- He should stand attentively at nominated place (muffom) facing the track, with furlled red and green H. S. flags in right and left hand respectively during day time and pointing white light of hand signal lamp pointing towards track during night. He should not point light towards train crew.
- He should watch carefully at the passing train for hot axle, hanging parts, brake binding, flat tyre, train parting, fire on train, shifted load, etc. and take immediate action as the case may be as follows.

(A) During train parting

- i. The GK shall never exhibit danger signal, instead he shall show green flag by day and white light during night waving it up and down vertically as high and low as possible,
- ii. He shall try to draw attention of guard by shouting or blowing whistle.
- iii. He shall report to Station Master.

(B) During hot axle

- i. Symptoms of hot axle
 - a. Smell of burning grease
 - b. Splashing of grease on wheel disc.
 - c. Axle box cover cut, bulging or missing.
 - d. Wheel not rotating (skidding)
 - e. Screeching sound (metallic sound)
 - f. Smoke
 - g. Red hot /burning flames.
- iv. On observing any of the above mentioned symptoms of hot axle, GK shall exhibit red flag/red light during day/night.
- v. He shall try to draw attention of guard by shouting, blowing whistle and gesticulating.
- ii. If GK fail to draw the attention of LP/guard, immediately inform Station Master.

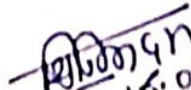
(C) During flat tyre

- i. Flat tyre can be identified by the hammering sound.
- ii. On noticing flat tyre GK shall immediately inform SM and obtain private number from SM. If the hammering sound is severe, and unsafe for the train to proceed. Gk shall initiate action to stop the train by showing red hand signal.

Action in the event of obstruction at Level crossing

Every gate man, on noticing any obstruction on the line shall immediately remove it. If unable to do so,

- Fixed signals if any should be kept 'ON'
- Protect the track as per Para.913 (3) of IRPWM.


16.02.2022
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