

SOUTH CENTRAL RAILWAY

Safety.387/Fly Leaf/05/2024

Fly Leaf No.05/2024

Attention..... **ALL CONCERNED**

Ref : Extra Ordinary Gazette Monsoon Instructions-2024. Joint Engineering, Operating & Electrical Circular – 2024. Action plan for Cyclones – Weather warnings.

MONSOON PRECAUTIONS

(A) Pre-Monsoon Inspections.

1. **Pre-monsoon inspection by SSE/P. Way and SSE/Works.** Details of Inspection & attention to be entered in Manuscript Registers / BMS (revamped).
2. **Items of inspection for SSE/P. Way.**
 - Clearance of Waterway.
 - Track on Bridges including all types of sleepers & fittings.
 - Guard Rails, Re-railing ramps, Gangways and their fittings.
 - Flood level gauge, Marking HFL, DL.
 - Major repairs in steel trolley / man refuges / gangways to be advised to SSE/Br.
3. **Items of inspection for SSE / Works.**
 - Foundations, Sub-structures, Bed Blocks of all bridges.
 - Flooring, River training & Protective works.
 - Superstructure of all bridges excluding Steel / PSC/ Composite girders.
 - General condition of superstructure & bearings of all other bridges.
 - Bridge Appurtenances: Notice Boards, Name Boards, RCC – Trolley/Man refuges & Pathways.
4. **Cuttings :** Pre-monsoon inspection to be carried out by ADEN and details to be entered in Cutting Inspection Register.
5. **During spells of Heavy Rains, ADEN & SSE / P.Way to inspect vulnerable cuttings by Trolley / Foot plate.**
6. **Vulnerable cuttings :** once in 3 years, Sr.DEN to review & identify Vulnerable cuttings. Watchman required to be posted during monsoon at these cuttings. Items to be inspected.
 - Cuttings < 5m height.
 - To be inspected thoroughly by walking over them.
 - Identified loose boulders to be removed before monsoon.
 - Cuttings 5m to 10m height.
 - Inspection of Cracks, Fractures, Joints etc., on cutting face using Binoculars.
 - Condition of slopes, signs of any upheaval.
 - Condition of catch water & Side drains and outfall – to be cleared.
 - Condition of protective works such as Retaining walls, Boulder nets etc.
 - Trained Rock climbers to be employed for inaccessible slopes.
7. **Tunnels :** Pre-monsoon inspection to be carried out by ADEN and details to be entered in Tunnel Inspection Register. Items to be inspected :
 - Tunnel approach & Cutting.
 - Loose boulders – to be marked and felled.
 - Side drains, outfall – to be cleared for unobstructed drainage.

- Condition of end Portals –
 - Signs of slips above portals,
 - condition of catch water drains,
 - loose boulders over Portals
- Tunnel walls & Roofing :
 - Seepage of water, weep holes.
 - Cracks in lining etc.
- Drainage inside Tunnel and Outfall.
 - Tunnel Refuges & Ventilation shafts.
- Track in the tunnel.
- Lighting & communication equipment.
- Clear the weep holes & grout and point cracks in masonry/concrete lining.

(B) Monsoon Patrolling :

- Monsoon Patrolling to be introduced in the Identified sections for the periods as specified in CTE's Circular.
- Stationary Watchman to be provided at identified Vulnerable Bridges/ Locations as per the CTE circular. Approaches of newly constructed bridges / RUB / LHS should be considered vulnerable and watched.
- Issue of Patrol Charts to be ensured by Sr. DEN/DENs.
- Patrol Books along with Equipment, Protective clothing, consumables etc., to be supplied to Patrolmen by SSE/P. Way.
- Gang patrolling to be introduced during abnormal Rainfall / storm on receipt of weather warning – up to 48 hrs beyond warning period.
- Check of Monsoon Patrolling by Engineering officials :
 - SSE/P. Way : Once a fortnight by Train & by Trolley.
 - ADEN : Once a month by Train / PT / MT.
- All vulnerable locations / bridges to be watched round the clock.
- Patrolling during heavy rainfall – other sections.
- Vulnerable locations / bridges within 200m – Single watchman can be posted.
- Vulnerable locations to be reviewed jointly by ADEN & DEN based on past history and pre-monsoon inspections.
- Deleted locations – to be marked in patrol charts and watched by patrolmen during regular patrolling.
- Block section vulnerable purely on account of vulnerable locations / bridges – stationary watchman instead of patrolling is permitted.
- Jungle areas or Ghat sections – Patrolling in pairs.
- Use of GPS trackers for monitoring the patrolling.
- Seminars to spread instructions – Division / Sub-division/ P. Way unit.

(C) Monsoon Precautions - Important Items :

- Monsoon Reserve stock on wheels – Wagons should not be moved from nominated stabling station without authority.
- Reserve stock to be recouped immediately as and when consumed.
- Bags should be stitched after filling with sand.
- Locations of anticipated falling of trees : Cutting of trees & pruning of branches to be done.
- Anemometers – 30 Nos. fixed at nominated stations to be checked and repairs to be attended promptly. Review of redundant locations.

- Close liaison with local Irrigation authorities regarding Railway affecting tanks, Discharge from Major Dams / Reservoirs.
- <http://irrigationap.cgg.gov.in/wrd/dashBoard> may be referred for updation.
- RUBs & LHS locations : Pumping arrangements at identified locations to clear stagnation and deployment of stationary watchmen.
- Clearing of drains in Yards to prevent Flooding & Track circuit failures.

(D) Weather warnings. – Action plan :

- **CENTRAL CONTROL / RAILNILAYAM** : to Engineering Control, TPC, TLC, Security Control, Commercial Control, Electrical Control, Test Room and Divisional Control concerned.
- **DIVISIONAL CONTROL** : to Engineering Control, TPC, TLC, Security Control, Commercial Control, Electrical Control, Test Room and Divisional Control concerned.
- **TRACTION POWER CONTROLLER** : liaison with the field officials, headquarters Officers, apart from the neighbouring divisions.
- **OHE / PSI DEPOT IN-CHARGE** : Break Down vehicles i.e. Tower Car, Wiring Train, Lorries and all break down tools, shackle and ladders, generator set, portable flood lights etc., shall be kept ready for movement at any instant.
- **STATION MASTERS** :
 - To be advised to ADENs, SSE/JE-P.Way, SSE (Works), ADEE/TRD, SSE/OHE/PSI.
 - There is a reasonable doubt that severe storm is going to break out endangering the safety of passengers, the SM in consultation with the Guard and LP **regulate the train** and **refuse granting line clear** for trains till storm abates and he considers safe for the movement of trains.
 - If Night Patrolman not returned from the block section as per his beat chart, wait for 15 minutes and issue emergency Caution Order to all trains to observe an SR of max. 40 KMPH.
 - If Anemometers are installed and when indicating wind velocity higher than the danger level, control the movement of trains.
- **LOCO-PILOTS** :
 - If the train is caught in the cyclone, storm or strong wind, stop the train at a convenient place duly taking care not to stop on bridges, sharp curves, etc.,
 - Ensure the sanders are filled with sand and they are in working condition.
- **SSE / P. Way** :
 - Ensure that as far as possible that those Patrolmen who are provided with quarters are selected for patrolling.

- Also, ensure that another Trackman is arranged if the nominated Patrolman does not turn up for patrolling for any reason.

➤ **ACTION BY THE GANG MATE :**

- During the fair season, the Gangmate should on his own accord depute two reliable Gangmen with equipment for patrolling the block section on either side and for alerting the intermediate Gangmates.
- During monsoon period, the Gangmate of the station/yard gang should send two Gangmen in opposite directions to alert intermediate Gangmates, Patrolmen and Watchmen.

➤ **SPECIAL PRECAUTIONS WHEN WATER LEVEL RISES :**

Each case trains being stopped dead and allowed to proceed at a speed not exceeding 8 KMPH.

- If water rises over the ballast level but is below rail level, the track should be walked over by two men abreast one at either end of the sleepers before each train and only if the track has not been disturbed, should the train be allowed over the track.
- When water overtops the rail, the PWI should certify by walking over and probing that the track is safe.

PRINCIPAL CHIEF SAFETY OFFICER

SAFETY ORGANISATION

SOUTH CENTRAL RAILWAY