

SOUTH CENTRAL RAILWAY

Headquarters Office,
Works Branch,
Secunderabad.

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Sr.DEN/Co.ord/SC, BZA, GTL, GNT, HYB & NED

Sub: Standard Instructions for Monsoon Patrolling of Track and watching of vulnerable locations/Bridges during the monsoon for the year 2022-23.

1.0 The detailed instructions regarding monsoon patrolling are brought out in Chapter X of the Indian Railway Permanent Way Manual 2020 and appendix IV of the General and Subsidiary Rules 2020. In case of any doubt, reference may be made and clarification obtained from the Office of the Principal Chief Engineer.

1.1 **Monsoon periods:** The periods for which monsoon patrolling shall be carried out over various sections of the South Central Railway are furnished in **Annexure-I**. If the monsoon breaks out earlier, the introduction of patrolling, watching of vulnerable bridges/locations shall be advanced correspondingly and similarly if the monsoon continues beyond the period specified, the patrolling of sections, watching of vulnerable bridges/locations can be continued till the actual end of the monsoon.

1.2 **Watching of vulnerable locations:** Vulnerable locations are defined in Para 1006 of Indian Railway Permanent Way Manual 2020

As per Para 1006 (3) of Permanent Way Manual 2020, guarding of vulnerable bridges/locations has to be watched round the clock during the monsoon period.

However, bridges with inadequate waterway need to be watched only if:-

- i. There is an Identified Railway Affecting Tank (Identified by the State Committee of Engineers) in the catchment.

or

There is a risk of high floods over-topping the embankment on either of the approaches.

- ii. There is risk of the bridge itself being damaged. In all other cases of vulnerable bridges with inadequate water way, the Sr.DEN/DEN may at his discretion dispense with stationary watchmen, provided monsoon patrolling is in force on the section, subject to the approval of Chief Bridge Engineer/Principal Chief Engineer for which specific recommendations may be submitted by the Sr.DEN/DEN.
 - (a) Where two or more vulnerable locations/bridges are situated within a reach of 200 meters, they may be covered by a single watchman provided there are no problems of visibility for watching as well as for warning the driver of the approaching trains.
 - (b) Regarding vulnerable locations/bridges, Divisions have carried out the requisite review and have come up with proposals for up-dating the bridges/vulnerable locations and the same have been finalized. This has the approval of Competent Authority (**Annexure-II**).
 - (c) Vulnerable locations/kilometrages should be reviewed jointly by the ADENs and DENs on the basis of past history and pre-monsoon inspections and the register of vulnerable locations should be brought up-to-date (Ref:- Item no.iv of Board's Ir no. 2016/CE-II/Safety/Precaution Dt: 24.5.21).

- (d) In the case of vulnerable locations/bridges which are deleted from the list based on the review as approved by Headquarters shall continue to be specially watched by regular monsoon patrolmen and by the respective Gang and the Supervisory Officials. The concerned Sr.DEN/DEN will ensure that such of these deleted locations/bridges are clearly marked in the respective beat charts of the patrolmen as also in their diary so that these are watched by patrolman during their beats.
- (e) If any block section is identified as vulnerable purely on account of existence of few specific locations such as vulnerable bridges etc., the possibility of covering such locations by stationary watchmen instead of regular monsoon patrolling over the whole block section may be considered.
- (f) In hilly areas, where there are incidences of falling of boulders, a survey should be carried out to locate loose boulders. Such loose boulders should be dropped in a systematic manner (Ref:- Item no.iii of Board's lr no. 2016/CE-II/Safety/Precaution Dt: 24.5.21).
- (g) The locations where suspected falling of trees on track is anticipated should be identified and preventive measures like cutting of such trees or pruning of tree branches should be done to avoid dislocation to train services.

1.3 **REGULAR MONSOON PATROLLING GUIDELINES FOR IDENTIFICATION.**

The extant instructions are:- "In terms of Para 1004 of the Permanent Way Manual 2020: During the monsoon, certain sections of the Railway line as may be specified, shall be patrolled to detect damage by flood, such as breaches, settlements, slips and scours and immediate action be taken to protect the trains, when so warranted. The Sr.DEN/DEN after personal inspections along with the concerned ADEN & SSE/P.Way shall decide the block sections to be covered by regular monsoon patrolling. The guidelines in this regard are as under:

- i) The Competency of the mates, keymen and as well as old PWIs who might have worked in the sections should be given special weightage in deciding as to whether the block section should be covered by regular monsoon patrolling or not duly considering their experience and knowledge.
 - ii) Action taken based on the previous years experience by way of protective measures such as rebuilding/extension of water way, provision of flooring and drop walls in bridges, pitching of the slopes of bank at approaches, other vulnerable locations, river training works, regrading of track, etc.
 - iii) High banks and deep cuttings, heavy graded sections with steep slope of the ground towards track, etc., cutting with tendency for earth of side slopes to slip, boulders falling etc., if unsafe conditions can occur in a short time due to nature of terrain, they deserve special considerations for regular monsoon patrolling.
- 1.4 As the list of sections as per Annexure-I is in terms of Hand Book on monsoon instructions 2003 (Blue Book), a review of sections not included may be done taking into consideration of relevant factors including unusual occurrences in monsoon period etc., during the intervening period.
- 1.5 The actual timing of the patrol beat shall be given maximum coverage for passenger carrying trains in the sections. This patrolling need not be introduced over section where there are no passenger services during the night time. For such locations, action is to be taken as per the instructions containing in Para 2.7 of Appendix-IV under Subsidiary Rules of 15.05 (G&SR 2020).