Sub: Monitoring health of ballast bed with the help of Ground Penetration Radar Technology for Through Ballast Renewal (TBR) and Formation Rehabilitation on Indian Railways.


Please refer to the correspondence on the above subject. RDSO was advised vide Board’s letter dated 19.12.2017 that TM and GE Dte./RDSO should prepare a joint action plan for carrying out GPR Survey of all the track which is due for ballast cleaning and becoming due in next two years based on the age/traffic criteria and the stretches of formation identified as weak formation. The work is to be carried out by installing GPR on one or two TRCs through service contract.

The matter has been reexamined in Board’s office and it is observed that carrying out GPR survey of only stretches due/becoming due for deep screening on age/traffic carried basis will give information in scattered bits and pieces leaving unanalysed portions in between throughout. It is felt that it would be better to carry out continuous survey of routes carrying higher density of traffic so that complete continuous analysis is available. This will also give insight into life of deep screening and condition of ballast in different formations, geographical, traffic and weather conditions vis-a-vis time elapsed/traffic carried since last deep screening.

Having reconsidered the matter, Board (ME) has approved that RDSO should carry out the GPR survey of complete routes carrying higher density of traffic viz A, B, C & D-spl. routes as per the sanctioned scope of 46000 track km instead of taking up only stretches due/becoming due for deep screening. GPR survey of weak formation will also be carried out on A, B, C & D-spl. Routes.

(Pradeep Nagar)
Director Civil Engg. (Plg.)
Railway Board