

EASTERN RAILWAY
(CONSTRUCTION DEPARTMENT)

No.CAO/Con/W/2201/274
Dated: 21.08.2008.

Sub: Stabilization of bank.

As per the approved L-section, it is noticed that high banks and deep cuttings are involved for construction of new lines/doubling and in approaches of major bridges. In order to avoid the bank's slippage, provision of sub-bank without proper design is only provided in some of the sections, which may not be adequate to arrest the slope failure. I hope that slope stability analysis is carried out at all the sites depending upon the heights of banks etc as per RDSO's Guidelines for Earthwork in Railway Projects (Guideline No.GE:G-1, issued in July 2003). Failure of the bank/cutting slope should not take place after commissioning of the section which proves to be very costly to the Railways and badly commented on quality of work, while it may not be so, as the failure can only be attributed of not carrying out the proper analysis/design of both the high embankments and cuttings.

Keeping above in view, all the field Deputies should be advised to carry out the above analysis for on-going projects, if already not done, and carry out the work accordingly. In case earthwork has been carried out without proper analysis and bank slippage is noticed during the monsoon, measures like provision of sub-bank of proper width and at prescribed intervals, provision of RCC/masonry toe-wall/retaining wall of approved design, piling, geo-textile, provision of efficient drainage system including catch water drain, reinforced earth, turfing and tree plantation are required to be adopted to arrest the slope failures in embankment and cuttings depending upon the type of soil used in construction, height of bank and depth of cutting. Provision of such measures may not be available in the sanctioned estimate, therefore the actual requirement should be assessed properly and revised estimate should be prepared immediately incorporating other left over items also and should be submitted to HQ for further action in this regard.

Any such measures in small stretches may be taken in hand with approval of HQ for emergent situation to avoid further damage.


21/8
CAO/CON

CE/C/I, CE/C/II, CE/C/III - For immediate action.

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