

No. NHIII/P/2/79

Dated the 8th January, 1979

To

All State Governments (Departments dealing with Highways)

Sub : Need for keeping a close watch on completed National Highways/Bridges during Post-construction observation periods, and for a proper maintenance and upkeep thereafter, and the importance of proper handing over notes while transferring such works to new Divisions/other Government Agencies

It has been observed in the recent past that in many cases, soon after the completion of a National Highway road/bridge work, officers who were directly in charge of construction are transferred without even waiting for the expiry of the observation period or at least one flood season after the road/bridge has been opened to traffic. It would be appreciated that many important points needing detailed observations during the performance period of road/bridge, are best known only to the staff associated with the execution of the work. The officers taking over the maintenance of the bridge or the road more so the bridge cannot legitimately be expected to be familiar with the points requiring proper attention for observations during the floods or during service unless, of course, very detailed handing over notes are made available to them by the handing over staff. Non-compliance with this essential requirement of proper handing over notes has led to failure of structures due to the blissful ignorance of the authority taking over in some cases that have come to our notice. It may, therefore, be necessary that the construction staff, at least officers upto the level of the Executive Engineers, should continue to be in charge of the maintenance of the bridge/road works at least for one full year including at least one flood season, after the same have been got completed by them. In some cases where the works are executed by Divisions specially created for that purpose for a specified period, it may become difficult to continue those Divisions, and the completed works may have to be handed over to regular maintenance Divisions. Similarly, where N.H. Works are got executed through agencies other than the State road authorities (such as C.P.W.D. etc.), such agencies may not be prepared to undertake the responsibility of subsequent upkeep and maintenance. In all such cases, proper handing over notes highlighting the various important issues requiring close watch, and observation and as detailed in para 2 below, should be insisted upon and ensured. The State Governments are, of course, the deciding authority for posting and transfer of their officers for personnel management, keeping in view the exigencies of the administrative requirements, but, if the above suggestion is implemented, it would ensure a long range serviceability and safety of such structures and a good care of investments involved.

2. Besides complete technical data and notes highlighting special features of the structure requiring particular attention for maintenance during service, the handing over notes should invariably contain the following documents :

(A) For Bridges :

- i) Brief description of the bridge.
- ii) Completion drawing for all the components.
- iii) Basic design data/assumptions including those for the rivers training works.
- iv) Complete construction history of the bridge including foundations, substructure, super-structures and training works, if any.
- v) Special features of the bridge including the points requiring particular attention for maintenance with special reference to stability of foundations and the founding strata.
- vi) Any other details having relevance to the proper upkeep of the bridge structure and its safety.
- vii) Extracts of the bridge registers.

(B) For Roads :

- i) Completion drawings of road structure, drainage structures (culverts etc.), retaining walls, protective works, longitudinal section showing H.F.L. etc.
- ii) Pavement composition and the basic pavement design data like C.B.R. values etc.
- iii) Quarry locations from which road aggregates have been obtained.

- iv) In case of high approach banks exceeding 6 metres height, basic design data and assumptions utilised for design.
- v) Extract of the Road Register.
- vi) Any other special important features requiring particular attention for maintenance of road, road structures etc.

3. It is requested that the contents of this circular may kindly be brought to the notice of all officers in your Department who are directly or indirectly concerned with the planning, design, construction and maintenance of bridges/roads. Guidelines issued earlier for the safety of bridge structures *vide* this Ministry's letters No. NHV-11 (6)/73 dated the 19th Nov. 1974., PL-67 (29)/76 dt. the 31st August 1978 and NHIII/P/18/78 dated the 18th December 1978 may please be kept in view as far as bridge maintenance inspection -IRC Manual for the Highway Bridge Maintenance Inspection (IRC Special Publication 18) which may kindly be referred to and strictly followed by all officers concerned with the Maintenance Inspection of bridges so as to ensure proper maintenance and taking of timely protective measures to the bridge structures.

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