

To,

Date: August 21, 2018

1. The Chief Secretaries of all State Governments/UTs.
2. The Principal Secretaries/ Secretaries of State/ Union Territories, Public Work Departments (Dealing with National Highway, other centrally sponsored schemes and State schemes).
3. All Engineer-in-Chief and Chief Engineers of Public Works Department of States/ Union Territories dealing with National Highways, other centrally sponsored schemes.
4. The Chairman, NHAI, G-5&6, Sector-10, Dwarka, New-Delhi-110075.
5. The Managing Director, NHIDCL, PTI Building, New Delhi-110001.
6. The Director General (Border Roads), Seema Sadak Bhawan, Naraina, New Delhi-110010.
7. All CE-ROs, ROs and ELOs of the Ministry.

**Subject: Defect Liability/ Maintenance Period for the National Highways and centrally sponsored Road & Bridge works to be implemented on EPC mode - Amendment - reg.**

Sir,

This is in supersession of all the previous circulars related to defect liability / maintenance period of all the National Highways and centrally sponsored Road & Bridge works to be implemented on EPC mode, including the works of strengthening / IRQP / periodic renewal etc.

2. The Ministry has already clarified vide its circular dated 23-02-2018 that all the civil works including strengthening/IRQP/PR/pre-construction activities etc. costing more than Rs. 5 crore are to be classified as major works NH (M) and these are to be taken up on EPC or PPP mode. Any relaxation for execution of NH (M) works in other than EPC or PPP mode shall be with the approval of Secretary (RT&H) with concurrence from IFD.
3. **Works for development of National Highways facilities**
  - 3.1 The flexible pavement is to be designed for 15/20 years period and rigid pavement for 30 years design life and shall accordingly be stipulated in Schedule B of Concession Agreement. The Defect Liability Period/Maintenance Period for the development of national highways shall be as under:
    - (i) 5 years from the date of completion in case of road being constructed with Flexible pavement;

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- (ii) 10 years from the date of completion in case of road being constructed with Rigid pavement;
- (iii) 10 years from the date of completion for the stretches where new technology / material has been/is proposed to be used

3.2 The civil works cost estimates for implementing the project on EPC mode shall also include the maintenance cost to be incurred by the Contractor during the Defect Liability / Maintenance period in all estimates for development of National Highway facilities. No separate payment is to be made to the Contractor for carrying out maintenance works during defect liability period/ maintenance period. The payment to be made to the Contractor during construction and Defect Liability Period shall be released in the following manner:-

- (i) Payment during construction period - 90% of the total civil works cost.
- (ii) Payment after three years of construction in case of Flexible pavements and after 5 years in case of Rigid Pavements - 5 % of total civil works cost linking with performance parameters.
- (iii) Payment on completion of Defect Liability Period- 5% of total civil works cost linking with performance parameters qua the attendance to the Defects.

4. For the renewal/ IRQP works.

4.1 As far as possible, the National Highways shall be designed and developed for longer design life as mentioned in para 3.1 above. However, the renewal works may be required due to oxidation of the bitumen in the wearing coat of properly designed Highways after a time gap of about 5-6 years. Depending upon the riding quality, all stretches designed with 15-20 years life and developed with flexible pavement shall be renewed at intervals of every 6 or 7 years by preferably using hot-in-place recycling of the entire layer of bituminous concrete (BC). In case, hot-in-place recycling is not feasible due to non-availability of equipment etc., a renewal layer of 40mm BC shall be laid. The defect liability period /maintenance period in such cases shall be three years.

4.2 Situations warranting Renewal/Improvement of Riding Quality (IRQ) works shall be as follows:

Case 1: In case renewal is required either due to oxidation of the bitumen or attrition in the wearing coat, it should preferably be renewed by hot-in-place recycling of entire layer of bituminous concrete. In case hot-in-place recycling is not feasible due

  
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1. to non-availability of machine etc., a fresh layer of bituminous concrete with 40mm thickness shall be laid. The defect liability period/maintenance period in such cases shall be three years.

Case 2: Where the stretch requires improvement to riding quality in cases other than those in case 1, it can be done by laying a layer of DBM/BM and/or BC/SDBC. In such cases also, the defect liability period/maintenance period shall be three years.

5. This issue with the approval of the Competent Authority.

Yours faithfully,



(Raj Kumar)  
Assistant Executive Engineer, S&R(P&B)  
For Director General (Road Development) & Special Secretary