

Dated: 08th April, 2022

CIRCULAR

To

1. The Chief Secretaries of all the State Governments/ UTs.
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department/ Road Construction Department/ Highways Department (dealing with National Highways and other centrally sponsored schemes).
3. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
4. The Managing Director, NHIDCL, PTI Building, New Delhi-110001.
5. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110 010.
6. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs/ Road Construction Department/ Highways Departments (dealing with National Highways and other centrally sponsored schemes).
7. All CE-ROs, ROs and ELOs of the Ministry.

Subject: - National Highway Pre-cast Concrete Policy - Reg

Madam/Sir,

Industrialised Pre-cast Concrete (factory manufactured pre-cast concrete elements) has the benefits of all-weather and fast construction, reliable quality & enhanced performance durability, aesthetics due to uniformity in appearance and minimum user time delay/reduced carbon emission/reduced noise & air pollution due to reduced construction activities at site, etc. To add to that, it will also play an integral role in accelerating the growth of the MSME sector. To harness the benefits of pre-fabrication in construction of National Highways, Expressways & Other Centrally Sponsored Road Projects, following policy decisions have been taken:

2. Contract/Concession agreement document shall include the provision of mandatory use of factory manufactured pre-cast concrete elements in projects within 100 km radius of Pre-cast factory. The minimum mandatory usage should be 25% of total concrete volume other than the foundations & sub-structures of Bridges/Viaduct/RoB. Any relaxation may be granted by Authority only if the contractor/concessionaire is able to demonstrate that the manufacturer(s) is not able to provide such products matching to the works programme of the contractor or the prices demanded by the manufacturer is more than the prices derived for cast-in-situ condition at the rates of SoR prevailing on 28th days before the bid due date.
3. Standardization is the key to promote the use of pre-cast concrete elements to take advantage of volumes and repetitive use of molds. Therefore, It is beneficial to keep the spans/sizes of different structures as uniform as possible.
4. Design and Construction of pre-cast concrete elements will be done as per relevant IRC/BIS standards/guidelines/codes furthermore taking into consideration expected

handling/lifting stresses, etc. Any international guidelines such as AASHTO, FHWA (Accelerated Bridge Construction Guidelines), Japan & Euro codes, may be followed in case of any gaps in IRC/BIS standards/ guidelines/codes till such time IRC/BIS guidelines are developed.

5. To start with Quality Council of India (QCI) shall be entrusted to certify pre-cast concrete factory. As the number of factories go on increasing, MoRT&H may entrust certification to other agencies like NCCBM/RDSO/IITs etc. Certification shall not be required for pre-casting being done at Project site.

6. The pre-cast factory shall have minimum facility of fully automatic RMC plant for better quality, arrangement for steam curing, mechanical handling of concrete and pre-cast components, bar bending machines, stacking yard, in-house design team and NABL accredited quality control laboratory, RO plant for water purification etc.

7. It is requested that the contents of the letter may be brought into the notice of all concerned for needful compliance.

7. This issues with the approval of Competent Authority.

Yours sincerely,

Bidur Kant Jha
08-04-2022

(Bidur Kant Jha)
Director

(New Technology for Highway development)
For DG (RD) & SS

Copy to:

1. All CEs in the Ministry of Road Transport & Highways
2. All ROs of the Ministry of Road Transport & Highways
3. The Secretary General, Indian Roads Congress
4. Technical circular file of S&R (P&B) Section
5. NIC-for uploading on Ministry's website under "What's new"

Copy for information and necessary action to:

1. Sr. PPS to Secretary (RT&H)
2. PPS to DG (RD) & SS
3. Sr. PPS/ PPS to Addl. Secretary (Road Safety)/ Addl. Secretary (RT&H & LA)
4. Sr. PPS/ PPS to AS&FA
5. Sr. PPS/ PPS to ADG (SKN) / ADG (RP)/ ADG(DS)
6. Sr. PPS/ PPS to JS (RT&MVL)/ JS (EIC) / JS (Logistics)/ JS (NHIDCL)