

No. RW/NH-33044/2/88-S&R

Dated the 24th July, 1992

To

Chief Engineers of State/U.Ts. PWDs dealing with NHs and other Centrally Financed Schemes; Director General (Works) CPWD; Director General Border Roads; Chairman, National Highway Authority.

Subject: Supply of Elastomeric Expansion Joints for Bridges on National Highways and under other centrally sponsored schemes.

Vide this Ministry's letter No. RW/NH-33054/39/89-S&R dated 20th April, 1990 and letter No. RW/NH-33054/3/91-S&R dated 26th September, 1991, this Ministry had prequalified 7 numbers of manufacturing firms for the supply of elastomeric bearings for bridges on National Highways and under other centrally sponsored schemes. Instances have come to the notice of this Ministry that the prequalification for supply of elastomeric bearings is being misconstrued as applicable for supply of elastomeric expansion joints as well. It is hereby clarified that this Ministry have so far not prequalified any manufacturing firm for the supply of elastomeric expansion joints.

2. For important bridge structures, as per Clause 4.3.8 of IRC:SP-33, sealed type of expansion joints with elastomer seal/slab are to be used. This Ministry have so far not framed any specification for elastomeric expansion joints. Hence, the Department which intends to procure elastomeric expansion joints shall examine the specifications of the manufacturer and ensure their suitability for use in their projects. However, certain important aspects in this regard are given below for guidance:

- (i) The Chloroprene raw material used in the manufacture of elastomeric expansion joints shall be Neoprene WRT, Bayprene 110, Skyprene B-5 or Denka S-40.
- (ii) The Chloroprene raw material used for the manufacture of elastomeric expansion joints shall satisfy all the material specification outlined in Clause 915 of IRC: 83 (Part II) - 1987 (IRC Code of practice for elastomeric bearings).
- (iii) Each expansion joint shall be tested for atleast 100 cycles for a test movement which shall be 10% more than the design expansion/contraction movement.
- (iv) In addition to routine test, one out of every 20 expansion joints shall be subjected to the test movement for 4000 cycles. The lot shall be rejected if the elastomeric material shows signs of fatigue or permanent set or distress in the test. The test piece shall not be used in the bridge.
- (v) The type test for abrasion resistance shall be carried out for one joint out of every 20 Nos. as per IS 3400 (Part III) - 1965 and the standard deviation should be within $\pm 20\%$.

3. The contents of this letter may be brought to the notice of all the Officers of your Department dealing with Works on National Highways and under the centrally sponsored schemes.
