

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD**

No.2014/CE-III/BR/Bridge Policy

New Delhi, dt 31.07.2017

**Director General
RDSO/Manak Nagar, Lucknow.**

**Principal Chief Engineers,
All Zonal Railways.**

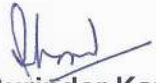
**Chief Administrative Officers (Construction)
All Zonal Railways.**

Sub: Use of Spherical Bearings for long span bridge girders

Bearings are provided in bridges to safely transmit loads/forces from the superstructure to substructure while permitting requisite translational/rotational movement of superstructure. Depending upon quantum of load, span, movement required etc., different type of bearings such as Rocker Roller, POT-PTFE, Elastomeric, sliding bearings etc. are being provided presently. However, these bearings have some limitations with regard to load transmitting capacity, translational/rotational movement, life of bearings etc. Ideally the life of bearings should match with life of the bridge to minimise maintenance./renewal during life span of the bridge.

Spherical bearings are considered most advanced and superior type of bearings due to their high load transfer, rotational and long life characteristics. These bearings are being extensively used worldwide. These bearings have recently been used for first time on Indian Railways in Bridge 20 on USBRL, Bogibeel Bridge (NFR) and Jubilee Bridge (ER). In case of several upcoming important bridges, RDSO has also recommended use of Spherical bearings.

In view of above, it has been decided that in future, Railways may use Spherical bearings for Span 61.0m and above adopting best available standards available worldwide.


(Surinder Kaul)
Adviser Bridges
Railway Board

Copy for information and necessary action to:

- 1. ED/B&S and ED/Structures, RDSO/Manak Nagar, Lucknow. RDSO is advised to prepare and issue specifications for Spherical bearings based on the best available standards worldwide.**
- 2. CMD/RVNL, RITES, KRCL, IRCON, DFCCIL**
- 3. CBEs/All zonal railways**