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S.No.4

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

Dated 12.12.2012

No.2009/Proj./MAS/9/2 (Vol.II)

CAO/Cs,
All Indian Railways.

Principal Chief Engineers,
All Indian Railways.

Sub: Global Expression of Interest (EOI) for ballastless track for use on Indian Railways
– "Delkor Alt.1 Fastening System".

Ref: (i) Railway Board's letter No.2009/Proj./MAS/9/2 dated 21/25.7.2011.
(ii) ED/Track-II/RDSO's letter No.CT/EF/Global EOI/Avadh Rubber dated 12.9.2012.

RDSO had invited Expression of Interest for identifying fastening systems of ballastless track, compliant to the Performance Criterion issued under this Ministry's letter No.2009/Proj./MAS/9/2 dated 21-5-2010. In this connection M/s Avadh Rubber, Lucknow (in association with M/s Delkor Rail Pty. Ltd., Australia) had offered system "Delkor Alt.1' fastening system" for scrutiny to RDSO

The system "Delkor Alt.1' fastening" has been examined for its technical suitability and proveneness and is now cleared for use by Metro Railways/MRTS systems subject to the following:

- (i) The fixation used with fastening system "Delkor Alt. 1", is plastic dowel with screw spike and double helical washer. Bolt design calculations for 2 holes fasteners have been submitted by the firm. It has been stated that bolts to identical design are to be used on 2 holes as well as 4 holes fasteners and normally 2 hole fasteners assemblies are used on straight track while 4 hole assemblies are used on curved track. The MRTS/Metro Rail Authorities may decide the number of anchor bolts according to their own site requirements.
- (ii) The drawing and the specification of the fastening system, as have been used in the test assembly examined and cleared by RDSO, are enclosed as Annexure-1. The MRTS/Metro Railway system should make sure that the system, if used by them, matches completely with the drawing and specifications of the test assembly which was examined by RDSO. The metro railway/MRTS systems are at liberty to carry out any further tests for this; as considered necessary.
- (iii) In accordance with para 4.2 (v) of the Performance Criterion Dt. 21.05.2010 referred above, the MRTS/Metro Railway Authorities may ensure and verify the compliance to the dimensional tolerance of various parameters of the complete fastening system.

- (iv) Before this fastening system is installed in the track, Metro Railways/MRTS system should satisfy themselves, by conducting fresh tests from an independent laboratory on samples selected by Metro Railway/MRTS System, that the fastening system meets the physical parameters requirements of the Performance Criteria. Since this clearance is only for the Delkor Alt.1 System and not for any supplier, Metro Railways/MRTS Systems should satisfy themselves about the credentials of the prospective suppliers of the system.
- (v) A copy of the performance certificate issued by MTR Corporation Ltd, Hongkong, is enclosed as Annexure 2. The Metro Railway/MRT system should verify the authenticity of the system proposed to be used by them vis-à-vis this Performance Certificate.
- (vi) The other aspects of the Performance Criteria dated 21.05.2010 referred above, such as those given in paras 4.2(i), 4.3 etc. amongst others, be examined by Metro Railways/MRTS system, to ensure compliance to the requirements of Performance Criterion.

Since this system will be used in India for the first time, as and when used, this will be kept under monitoring of RDSO for two years in terms of the Performance Criterion dated 21.05.2010 referred above.

This issues with the approval of the competent authority.

Enclosures:

- A. Annexure 1- statement of difference in nomenclature and dates of drawings and specifications for Delkor Alt. 1 fastening system (one page)
- B. Annexure II- Certificate issued by MTR Corporation Ltd., Hongkong (one page)
- C. Test report No. 201203365 (41 pages)
- D. Assembly and component drawings of fastening system (ten pages)
- E. Specifications of components (16 pages)

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Chander
nirman
(K.K. Aggarwal)
Executive Dir./Works Plg.
Railway Board

Copy to the following for information and necessary action:

a.s.
14/12/12

1. Secretary, Ministry of Urban Development, Nirman Bhawan, New Delhi
2. Director General, RDSO, Manak Nagar, Lucknow
3. Executive Director/Track (M), Railway Board, New Delhi
4. Managing Directors of all Metro Railways (DMRC, JMRCL, MMOPL, HMRL, CMRL, Kochchi Metro, KMRCL, BMRCL) with enclosures
5. MD/RITES, MD/ RVNL with enclosures
6. M/s Avadh Rubber, B-12, Industrial Area, Amausi, Lucknow.

मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
अनुमति प्रस्तावित जारी
12/12/12
हस्ताक्षर
Signature