GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No.2011/CE-I/BR/BSC/81/Seminar/Pt III **New Delhi, dt. 03.01.2014.**

Principal Chief Engineer, All Indian Railways
General Manager (Const.), N.F.Railway, Guwahati.
CAO/Const., All Indian Railways.

Managing Director, Konkan Railway Corporation Ltd, Navi Mumbai.
Managing Director, IRCON, New Delhi.
Managing Director, RITES, New Delhi.
Managing Director, DMRC, Metro Bhawan, Barakhamba Road, New Delhi
Managing Director, CONCOR, New Delhi.
Managing Director, RVNL, New Delhi.
Managing Director, DFCCIL, New Delhi.

Director, IRICEN, Pune.
Director, IRIEEN, Nasik.
Director, IRISET, Secunderabad.
Director, IRIMEE, Jamalpur.
Director, IRITM, Manak Nagar, Lucknow.
Director General, National Academy of Indian Railways, Vadodara.

FA & CAO, All Indian Railways.
Director General, RDSO/Alambagh, Lucknow.
Chief Commissioner of Railway Safety, Lucknow.

Genl. Secy., AIRF, Rail Bhavan.
Genl. Secy., NFIR, Rail Bhavan.
Genl. Secy., IRPOF, Rail Bhavan.
Genl. Secy., FROA, Rail Bhavan.
Genl. Secy., AIRPFA, Rail Bhavan.
Genl. Secy., DAI (Railways) Rail Bhawan, New Delhi.

Sub: *Advance Correction Slip* ***No.27 to*** *Indian Railways Bridge Manual.*

Ministry of Railways (Railway Board) have decided that correction/addition as indicated in the enclosed Advance Correction Slip No.27 dated 03.01.2014 to relevant paras of the IRBM be made.

Receipt of this letter may please be acknowledged.

06/01/14

DA: As above

V.Jain 3/1/14
(V.K.Jain)
Director Civil Engg.(B&S),
Railway Board

Please issue 122 copy (47 in envelope + 75 copy)
03.01.2014.
O/C.

No.2011/CE-I/BR/BSC/81/Seminar/Pt III

New Delhi, dt. 03.01.2014

Copy to: CRB, ME, ML, MS, MM, MT, FC, Secretary

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GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

INDIAN RAILWAYS BRIDGE MANUAL
Edition-1998

Advance Correction Slip No. 27 dated 03.01.2014

New para 1107 5 i) may be added as follows

i) In case of girders having High Strength Friction Grip (HSFG) Bolts:

(I) Inspection: The inspection of HSFG bolts shall be done visually for broken and loose bolts. Hitting HSFG bolts to check looseness is not allowed. Looseness of bolts shall be seen by rust appearing beneath the bolt head/washer/nut etc or marks left by water or apparent relative movement between the steel parts joined by the HSFG bolts. The broken/loose bolts if any, shall be marked by a round circle all around and shall be replaced expeditiously by new HSFG bolts of same specifications properly tightened. Retightening of loose bolts found during inspection is not allowed in any case.

(II) Use of HSFG bolts for repair/rehabilitation works: Where any girder component/ joint is to be replaced, HSFG bolts shall be used as follows:

(a) Complete joint shall have HSFG bolts. HSFG bolts cannot be used for replacement of isolated loose rivets.
(b) Proper surface preparation shall be done and joint design shall be done based on design provisions as per para 7.12 of Steel Bridge Code. Particular care shall be taken regarding use of appropriate slip factor for the surface preparation done.

New para 215A may be added as follows:

215A Maintenance of HSFG Bolts:

(i) Painting in service: HSFG bolts shall be painted as per normal painting schedules and painting methodologies as specified in the Indian Railways Bridge Manual for the girder as a whole.

(ii) Anti-theft and Anti-sabotage measures: Where it is apprehended that theft/sabotage might take place, the bolt threads may be destroyed by applying welding tack to the bolt projection beyond the nut after final tightening and inspection. The tack shall not be more than 5 mm long and not more than 3 mm in size. It shall be especially ensured that too much heat is not imparted to the bolt so as to alter its metallurgical properties. Alternatively, proven bonding agent may be applied to the threads projecting beyond the nut to seize or lock the bolt in position.

Following may be added below existing para 615

Where HSFG bolts are to be provided, the surface preparation shall be done as assumed by designer in design, based on slip factor chosen.

x----------x

Vijay