

भारत सरकार GOVERNMENT OF INDIA  
रेल मंत्रालय MINISTRY OF RAILWAYS  
(रेलवे बोर्ड RAILWAY BOARD)  
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No. 2017/16/CE-III/BR/Girder inspection

New Delhi, Dt. 27.12.2023

Principal Chief Engineers,  
All Zonal Railways.

Chief Administrative Officers/Const  
All Zonal Railways.

**Sub:** Third Party Inspection (TPI) of fabrication & erection of steel girders.

**Ref:** Board's letter of even no. dtd. 26-05-2017, 26-07-2022 & 17-11-2022.

Vide reference above third party inspection of fabrication of steel girders by approved third parties like M/s RITES, Welding Research Institute Tiruchirappalli (WRI), Konkan Rail Corporation Limited (KRCL), Certification Engineers India Limited (CEIL) etc. was introduced.

2. While the third party inspection has been found helpful to cope up with the increased workload of fabrication inspection on railways, it is further desired that the firms should have qualified/certified professionals conducting inspection of fabrication of steel girders. The firms should also have valid ISO Certification in the area of quality control of steel girder fabrication.

3. The fabrication of girders should be done invariably either in Railway Workshop or RDSO approved work shop. Trial assembly should be done in workshop before painting and despatch for girders fabricated as per non-standard designs. These instructions are applicable for girders of ROB and Rail Fly Over also. CBEs may issue their own instructions for FOBs depending upon work load, quality issues and availability of competent fabricators in their railway. CBEs may review the system being followed and take necessary measures to ensure quality fabrication of steel works as per **IRS: B-1, 2001**.

4. As more and more designs are done with welding and HSFG bolts, in order to have proper supervision of erection works, third party inspection by above agencies may also be considered to ensure quality of welding and bolting of joints as per laid down specification along with safety during erection.

(Niraj Kumar)  
Executive Director Civil Engg./B&S  
Ph. No. 011-478-47571

**Copy to:-**

- (i) PED(Infra)-II, RDSO/LKO.
- (ii) DG/IRICEN, Pune.
- (iii) GM/Const/NFR.
- (iv) CMD/RVNL, IRCON, DFCCIL New Delhi & MRVC/Mumbai
- (v) CBEs/All Zonal Railways

(51)

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

No.2017/16/CE-III/BR/Girder inspection

New Delhi, dt 26.05.2017

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

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

**Sub: Inspection of new Steel Bridge Girders.  
Ref: Board's letter no 91/CE-I/MT/4 dtd 25.03.1992**

On Indian Railways, use of steel bridge girders is very common for regirdering/rebuilding of existing bridges and construction of new bridges for new lines/doubling/Gauge conversion etc. Presently mostly welded girders (with joints riveted/bolted) are used. The girders are fabricated and inspected as per the provisions of IRS B-1/2001 and IRS welded bridge code. In order to ensure the quality of the newly fabricated girders, inspection of these girders are required at various stages i.e. Prefabrication, during fabrication and post fabrication before assembling/erection of girders at site.

2.0 Till the issuance of above referred letter, the new steel girders used to be inspected by RDSO, Zonal railways and outside inspection agencies like RITES etc. However, in view of expertise available with railways and limited scope of fabrication of girders, vide letter under reference above, it was decided that the practice of entrusting the inspection of girders to outside agencies should be discontinued and such inspections, wherever required should be carried out either by RDSO or by the Railways themselves.

3.0 As per the existing codal provisions, the inspection of fabrication of all type of triangulated girders and first 1000 MT of welded plate girders to be done by RDSO. However, with the thrust on commissioning of new lines/doubling etc. and introduction of higher axle load/High Powered locomotives on existing lines, the workload of steel girder fabrication and hence inspection has increased substantially. It may not be possible for RDSO to carry out timely inspections covering entire Indian Railways with the increased workload. Over a period of time, zonal railways have also developed experience and expertise in fabrication and inspection of steel girders. (A)

3.1 Sreedharan Committee (one man committee) constituted on delegation of commercial powers to zonal railways in its report has also commented that RDSO should focus on its core duties i.e. applied research and development and recommended that inspection function of RDSO should be taken away and Inspection shall be the duty of zonal railways and production units who can do it on their own or through third party. On the same, Board have viewed that current system of inspections should be switched over in time bound manner and the respective procuring entity shall be responsible for nominating/selecting third party to ensure quality of material. This has been accepted by Hon'ble MR.

4.0 In view of above, following may be done in regard to inspection of new steel bridge girders:

(i) Railways may carry out fabrication inspection on its own by open line/bridge organisation or may engage specialised third party (RDSO, RITES, WRI or any other expert public sector undertaking e.g. CEIL etc.) for fabrication inspection of girders to ensure the quality of fabrication. The respective procuring entity shall be responsible for nominating/selecting third party to ensure quality.

(ii) A fabrication inspection unit to be set up in each zonal railway headed by an officer not below JA grade under CBE of that Railway.

(iii) RDSO to impart training to railway officers/staff in inspection of fabrication of steel girders.

u) For ensuring quality fabrication, QAP to be prepared by fabricating agency and approved by the inspection agency.

v) The above be done in a time bound manner.

(Surinder Kaul)  
Adviser/Bridges  
Railway Board

**Copy for information and necessary action to:**

1. Director General, RDSO, Lucknow.
2. CMD/RVNL, IRCON & DFCCIL, New Delhi
3. CMD/RITES, Gurgaon
4. ED/B&S/RDSO, Lucknow
5. CBE/All Zonal Railways
6. CMD/ KRCL, Navi Mumbai

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भारत सरकार GOVERNMENT OF INDIA  
रेल मंत्रालय MINISTRY OF RAILWAYS  
(रेलवे बोर्ड RAILWAY BOARD)

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No. 2017/16/CE-III/BR/Girder Inspection Pt. I

New Delhi, dated 26.07.2022

Chairman & Managing Director,  
Konkan Railway Corporation Limited,  
Plot No. 6, Belapur Bhawan, Sector-11, CBD Belapur,  
Navi Mumbai-400614.


Sub:- Inspection and certification of Structural Steel fabrication & erection works  
for infrastructure projects in India and abroad.

Ref:- Director (Way & Works)/KRCL's letter No. KR/CO/DWW/Corres. dated  
20.09.2021.

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Kindly refer to the Director (Way & Works)/KRCL's letter dated 20.09.2021 under  
reference above on the captioned subject vide which it was requested the Board to include  
KRCL as one of the 3<sup>rd</sup> Party inspection organization for fabrication inspection of Bridge  
girders, duly specifying their experience and expertise in design and construction of major  
steel Bridges. It is understood that KRCL have developed extensive expertise in standard  
steel fabrication specially while working on USBRL projects including Chenab Bridge.

In this connection, it is requested to furnish the list of inspection (3<sup>rd</sup> Party) already  
carried out by KRCL. Further, KRCL may also furnish details of the trained/skilled  
manpower and infrastructure available for carrying out fabrication inspection.

  
(L. L. Meena)  
Director Civil Engg./ B&S,  
Ph. No.011-478-45455

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Room No. 140-B, Rail Bhawan, New Delhi-110001.



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भारत सरकार GOVERNMENT OF INDIA  
रेल मंत्रालय MINISTRY OF RAILWAYS  
(रेलवे बोर्ड RAILWAY BOARD)

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New Delhi, dated 17.11.2022

No. 2017/16/CE-III/BR/Girder Inspection

Chairman & Managing Director,  
Konkan Railway Corporation Limited,  
Belapur Bhawan, Sector-11, CBD Belapur,  
Navi Mumbai-400 614.

Sub:- Inspection and Certification of structural steel fabrication and erection works for infrastructure projects in India and Abroad.

Ref:- Board's letter No. 2016/54/CE-III/BR/RDSO Misc. dated 15.07.2019-Instruction No. 24/2019.

- (ii) KRCL's letter No. KR/CO/DWW/Corres. dated 20.09.2021.
- (iii) Board's letter No. 2017/16/CE-III/BR/Girder Inspection dated 26.05.2017.
- (iv) KRCL's letter No. KR/D&ID/01/2022-23 dated 09.11.2022.
- (v) ED/B&S/RDSO's letter No. CBS/Bridge InspGenl Matter dated 04.07.2022.

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Vide Board's letter 26.05.2017 under reference at (iii) above, guidelines have been issued for fabrication of girder by Zonal Railway Units or engage RDSO, RITES, WRI or other expert Public Sector Undertakings e.g. CEIL etc. to ensure the quality of fabrication.

Konkan Railway Corporation Limited (KRCL), vide letter dated 20.09.2021, had requested the Railway Board for inclusion of KRCL as one of the Third-Party Inspection organizations for fabrication and erection work of steel girders in Railways.

Further, KRCL vide letter dated 09.11.2022 has substantiated its credentials. Thus, based on experience and capabilities developed, KRCL can also be considered for the task of 3<sup>rd</sup> Party inspection of structural steel fabrication agency like RITES, WRI, CEIL etc. in Railways.

This has the approval of PED/Bridge/Railway Board.



(S. N. Joshi)

Executive Director/Civil Engg.(B&S)

Phone No. 011-478-47571

Copy for information and necessary action to:-

1. Principal Executive Director/Infra-II/Lucknow.
2. CMD/RVNL, IRCON & DFCCIL, New Delhi
3. CMD/RITES/Gurugram.
4. PCEs & CBEs/All Zonal Railways.