

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

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No. 2022/CE-III/BR/RDSO/1

New Delhi, dated 31.01.2024

Chief Administrative Officer/ Const.  
All Zonal Railways

Sub: Method Statements and adequate supervision during launching PSC Girders.

Ref: 1. Rly Bd L No. 2005/CE-I/ BR-II/8 dated 28.05.2009  
2. Rly.Bd L No. 2009/CE-I/BRO/194/Design dtd 03.04.2012  
3. Rly.Bd L No. 2013/CE-III/BR/RDSO/Misc dated 11.08.2014

Large scale construction of new Infrastructure is taking place on Indian Railways. Recently, construction manual has also been issued by Railway Board where compilation of available good practices has been done for the guidance of construction officials.

2.0 In one of the railway, PSC girder has fallen down at site during the execution of elevated sub-urban corridor on road. The PSC girder was having non-std. span 40.0 m and casting was done above the bed block level to enable pre-stressing of PSC girder. The falling of girder took place during lowering of girder.

3.0 The choice of adopting a span on a railway project depends on local conditions. As per available guidelines Standard PSC slabs/girders are to be provided up to 24.4 m span and only Composite / Steel Girders are to be provided above 24.4 m of span on techno-economic considerations. However, PSC Girders (Non-Standard) are still being used on some of the projects by the railways. Standard spans of steel are generally available and can be made available for restoration in case of damage to girders provided. Restoration, during emergencies, of non-standard spans therefore, can be difficult and time consuming. There are associated issues of quality of construction & safety during launching of heavy girders which needs to be given due importance during the planning and execution.

4.0 In exceptional cases, non-standard girders can be provided with the specific approval of CAO(C)/ PCE and the girders should be casted on ground (preferably in casting yard) to ensure proper supervision for quality and launching to be done as per approved launching scheme with adequate safeguard to safety e.g capacity and calibration certification of jacks, capacity of the Crane, chains /slings, packing, nomination of railway supervisor at work site, provision of web camera for recording and live feed etc . The launching methodology, duly examined by consultant & proof consultant, should be approved minimum at the level of Chief Engineer/C who shall ensure that adequate safety protocol, with independent third party safety supervision, is included in the method statement.

(Niraj Kumar)

Executive Director, Civil Engg.(B&S)

Ph. No.011-478-47571

Copy to:-  
1. Principle cheif Engineers, All Zonal Railways.  
2. PED/Infra-II, RDSO for Information.  
3. DG/IRICEN for information please.

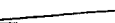
Room No. 109-A, Rail Bhawan, New Delhi-110001.

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5) New Delhi, Dt.: 28.5.09

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(S.K. Malik)  
Adviser (Civil Engg.)  
Railway Board

- i. ED/B&S, Research Design and Standards Organisation, Lucknow.
- ii. ED/Structures, Research Design and Standards Organisation, Lucknow.

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

**No.2009/CE-I/BRO/194 (Design)**

**New Delhi, Dated 03.04.2012**


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

**Sub: Use of PSC/composite girders, viaduct and pile/open foundation in ROB**

It has come to the notice that some Railways are under the impression that pre-cast PSC girders for spans 24M & above in Road Over Bridge (ROB) construction has been prohibited by Board. In this regard, it is clarified that Board's instruction issued vide letter no. 2005/CE-I/BR-II/8 dated 28.05.2009 are **applicable for Railway Bridges only**. The guidelines issued vide Board's letter no. 2001/CE-I/Misc/NH/4 Pt-III dated 28.06.2010, regarding ROB, basically prohibit use of **in-situ casting of PSC girder** to avoid long duration speed restrictions and traffic blocks. Railways can, therefore, use **pre-cast PSC/prefabricated** composite steel / bow string girders in ROB construction for any span length depending on site condition and requirement.

Further, **inspection** of composite welded steel girder of ROB can be done by Railways, as RDSO inspection is mandatory for welded bridge girders for carrying rail or rail-cum-road traffic and not for ROB, which is for road vehicles.

**This issues with the approval of Board (ME).**

  
(Arun Kumar Srivastava)  
Exec. Dir. CE (B&S-II)

Copy to following for kind information and necessary action please:

- (i) The **Chief Administrative Officer** / Construction, all Zonal Railways
- (ii) The **Director**, IRICEN, Pune
- (iii) The **Executive Director, (B&S) I & II**, RDSO, Manaknagar, Lucknow

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2009/12

Government of India  
Ministry of Railways  
(Railway Board)

No. 2013/CE-III/BR/RDSO/Misc.

New Delhi, dated 11-08-2014

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

**Chief Administrative Officer (Con)  
All Indian Railways**

**Sub: Use of Standard drawings on railway system.  
Ref: This office letter of even No. dated 4/6/2014.**

Vide this office letter under reference above, railways were advised that standard drawings available with RDSO be used as far as feasible while planning any work and in case, non standard drawings are required to be used, specific approval from RDSO may be obtained giving detailed reasons/justification for not using the standard drawings. The intentions was to get benefit of better designs so as to avoid unnecessary duplication of works and wastage of time in designing the non standard drawings.

2.0 On the above issue, many railways have represented to review the instructions stating that they are having large no. of targeted works relating to new line, doubling, ROB, RUB etc. in which using non standard drawings are unavoidable and getting specific approval from RDSO will take time to finalise the plans and may result in delay in execution of targeted works.

3.0 In view of above, the matter has been reviewed and it has been decided that railways should use standard drawings for superstructure as far as feasible. However, in case non standard drawings are unavoidable then railway may use the same with the specific approval of concerned CAO(C)/PCE. While according approval of the same, CAO(C)/PCE should record the specific reasons/justification for using non standard drawing. A copy of the drawing alongwith related design/details may be furnished to RDSO.

*V.K. Jain*  
(V.K. Jain)

**Director Civil Engg./ B&S  
Railway Board**

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

1. Chief Bridge Engineers, All Indian Railways
2. CMD, Rail Vikas Nigam Ltd, New Delhi
3. Executive Director/B&S/RDSO, Lucknow
4. Executive Director/Structures/RDSO, Lucknow