

Government of India
Ministry of Road Transport & Highways
(S&R (P&B/New Technology) Zone)
Transport Bhawan, 1, Parliament Street, New Delhi-110001

Dated: 3rd September, 2024

To

1. The Chief Secretaries of all the State Governments/ UTs.
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department/ Road Construction Department/ Highways Department (dealing with National Highways and other centrally sponsored schemes).
3. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
4. The Managing Director, NHIDCL, World Trade Centre, New Delhi-110029.
5. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi- 110 010.
6. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs/ Road Construction Department/ Highways Departments (dealing with National Highways and other centrally sponsored schemes).
7. The Secretary General, Indian Roads Congress
8. The Director, IAHE, Noida, UP
9. All CE-ROs, ROs and ELOs of the Ministry.

Subject: Strict compliance of Circular No. RW/NH-34066/09/2017-S&R (B) dated 12.02.2021 on reinforcing Steel Bars: Clause 100.9.3.1 of Ministry's Specifications for Road and Bridge Works and Circular No. RW/NH-34049/03/2020-S&R(B) dated 22.01.2021 on use of Stainless Steel in Bridges on National Highways and other centrally sponsored projects to be constructed in marine Environment Susceptible to Severe Corrosion.~reg.

Madam/Sir,

The Ministry has issued Circular No. RW/NH-34066/09/2017-S&R (B) dated 12.02.2021 on reinforcing Steel Bars: Clause 100.9.3.1 of Ministry's Specifications for Road and Bridge Works and Circular No. RW/NH-34049/03/2020-S&R(B) dated 22.01.2021 on use of Stainless Steel in Bridges on National Highways and other centrally sponsored projects to be constructed in marine Environment Susceptible to Severe Corrosion(copy enclosed). It has come to the notice that these circulars which are modification in the Ministry's Specifications for Road & Bridge works (5th revision) are not being followed in the execution of the projects. This has been viewed seriously in the Ministry.

2. In view of the above, it is directed that these circulars may be included in the Schedule D of the contract and followed in letter and spirit.

Enclosure : As above

Yours sincerely,

Bidur Kant Jha
03/09/2024
(Bidur Kant Jha)

Director (New Technology for Highway Development)

For Director General (Road Development) & Special Secretary

Copy to:

1. All CEs in the Ministry of Road Transport & Highways
2. All ROs of the Ministry of Road Transport & Highways
3. The Secretary General, Indian Roads Congress
4. Technical circular file of S&R (P&B) Section
5. NIC-for uploading on Ministry's website under "What's new"

Copy for kind information to:

1. PS to Hon'ble Minister (RT&H)
2. PS to Hon'ble MOS (RT&H)
3. Sr. PPS to Secretary (RT&H)
4. Sr. PPS to DG (RD) & SS
5. Sr. PPS/ PPS to Addl. Secretary (Road Safety)/ Addl. Secretary (RT&H & LA)
6. Sr. PPS/ PPS to AS&FA
7. Sr. PPS/ PPS to ADG (SKN) / ADG (RP)/ ADG(DS)
8. Sr. PPS/ PPS to JS (RT&MVL)/ JS (EIC) / JS (Logistics)/ JS (NHIDCL)



RW/NH-34066/09/2017-S&R(B)
GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
S&R(B) Section

Transport Bhawan, 1, Parliament Street, New Delhi-110001

Dated: 24 February, 2021

To

1. The Chief Secretaries of all the State Governments / UTs.
2. The Principal Secretaries / Secretaries of all States / UTs Public Works Department dealing with National Highways, other Centrally sponsored schemes.
3. The Engineers-in-Chief and Chief Engineers of Public Works Department of States/UTs dealing with National Highways, other Centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhavan, Ring Road, Delhi 110010.
5. The Chairman, National Highways Authority of India, Plot G-5 & 6, Sector-10, Dwarka, New Delhi 110075.
6. The Managing Director, NHIDCL, PTI Building, Parliament Street, New Delhi 110001.

Sub: Reinforcing Steel Bars: Clause 1009.3.1 of Ministry's Specifications for Road and Bridge Works regarding.

Sir,

Ministry vide circular no. RW/NH-34066/09/2017-S&R (B) dated 28.10.2020 has amended 2nd and 4th para of Clause 1009.3.1 of Ministry's Specifications for Road and Bridge, as under:

2nd Para

"All steel shall be procured from producers who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS: 1786. No re-rolled steel shall be incorporated in the works. The steel shall also be procured from other producers provided it is manufactured from the billets made directly from iron ores and not from shredded scrap and sponge iron as basic feedstock. In such cases, the other producers will have to submit the proof of purchase such as GST, Invoice etc. from the billet producers to establish that billets are made directly from iron ores and have been procured from them. The steel shall be got tested by the Engineer in the NABL affiliated laboratories only as a third party check. It shall be ensured that all the test results conform to IS: 1786."

4th Para

"For the steel procured from producers who manufacture billets directly from iron ores also, the Engineer/Employer may carry out checks on materials through third party as mentioned above, for conforming to the test results shown in the certificates so as to ensure the quality of steel supplied."

2. Ministry has received representation from Steel Manufacturers Association that other routes/material for production of steel may also be allowed as per relevant standards. Further, Ministry of Steel vide their D.O. No. S-20027/13/2020-TECH dated 12.01.2021 has clarified that Ministry of Steel does not support any classification of the steel producers and routes of steel production and use of raw materials have no bearing on the quality as long as production is as per relevant standards. Ministry of Steel in the said letter has highlighted adherence to BIS standards and purchase of BIS certified steel products.

3. The matter has been considered in the Ministry, and it has been decided to allow steel produced from ore/billets/pellet/melting of scrap subject to fulfillment of conditions mentioned below. Accordingly, clause 1009.3.1 of Ministry's specification for Road and Bridge works has been amended as under:

"For plain and reinforced cement concrete (PCC and RCC) or pre-stressed concrete (PSC) works, the reinforcement/unmentioned steel as the case may be, shall consist of the following grades of reinforcing bars:

Mild Steel (MS): Grade-1 (conforming to IS 432)

High Strength Deformed Steel (HSD): Fe415, Fe415D, Fe415S, Fe500, Fe500D, Fe500S, Fe550, Fe550D & Fe600 (conforming to IS 1786)

If any grade of steel given above is not available steel of next higher grade may be used.

For seismic zones III, IV & V, HSD steel bars having minimum elongation of 14.5% shall be used.

For seismic zones III, IV and V, HSD steel bars shall possess following properties:

- a. The actual 0.2% proof strength of steel bars based on tensile test must not exceed their characteristic 0.2% proof strength by more than 20 percent.
- b. The ratio of the actual ultimate strength to the actual 0.2 percent proof strength/yield strength shall be at least 1.15.

4. All the manufacturers/ suppliers, as the case may be, shall supply the purchaser or his authorized representative with the certificate stating the process of manufacture and also the test sheet signed by the manufacturer giving the result of each mechanical test applicable for each lot of the material supplied and chemical



composition. Sample shall be got tested by the Authority's Engineer/Independent Engineer/Supervision Consultant in the NABL accredited laboratories only, as a third party check before source approval. It shall be ensured that all the test results conform to IS: 432 (MS) or IS: 1786 (HSD).

Only new steel shall be delivered to the site. Every bar shall be inspected before assembling on the work and defective, brittle or burnt bars shall be discarded. Bars with cracked ends shall be discarded."

5. The contents of this Circular may please be brought to the notice of all the Concerned in your Organization for strict implementation. This circular will be implemented from the date of its issuance.

6. This issues with the approval of the Competent Authority.

Yours faithfully,



(Ashok Kumar Sharma)

SE-S&R(Bridges)

For Director General (Road Development) & SS

Copy to:

1. All Technical Officers in the Ministry of Road Transport & Highways.
2. All Joint Secretaries in the Ministry of Road Transport & Highways.
3. All ROs & ELOs of the Ministry of Road Transport & Highways.
4. The Secretary General, Indian Roads Congress.
5. The Director, IAHE, Noida
6. Technical circular file of S&R (B) Section.
7. NIC for uploading on Ministry's website under "what's new".

Copy for kind information to:

1. PS to Hon'ble Minister (RT&H, MS&ME) / PS to Hon'ble MOS (RT&H).
2. Sr. PPS to Secretary (RT&H).
3. PPS to DG (RD) & SS.
4. PPS to AS & FA/ADG-I/ADG II/ ADG III/ ADG IV



RW/NH-34049/03/2020-S&R (B)
GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
S&R -(Bridges)
Transport Bhawan, 1, Parliament Street, New Delhi-110001

Dated: 22.01.2021

To,

1. The Chief Secretaries of all the State Governments / UTs.
2. The Principal Secretaries / Secretaries of all States / UTs Public Works Department dealing with National Highways, other Centrally sponsored schemes.
3. The Engineers-in-Chief and Chief Engineers of Public Works Department of States/UTs dealing with National Highways, other Centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhavan, Ring Road, Delhi 110010.
5. The Chairman, National Highways Authority of India, Plot G-5 & 6, Sector-10, Dwarka, New Delhi 110075.
6. The Managing Director, NHIDCL, PTI Building, Parliament Street, New Delhi 110001.

Sub: Use of Stainless Steel in Bridges on National Highways and other centrally sponsored Projects to be constructed in marine Environment Susceptible to Severe Corrosion.

Sir,

Ministry vide circular No RW/NH/34041/44/91-S&R dated 14th March, 2000 prescribed use of Fusion Bonded Epoxy Coated Reinforcement in Bridges on National Highways and other centrally sponsored Bridge Projects in Marine Environment as detailed thereto. The various specifications, conditions etc. for use of Fusion Bonded Epoxy Coated Reinforcement have also been stipulated in the above said circular.

2. The instructions given hereby are now in supersession of the above circular in light of the further experience/knowledge gained and modifications/evolution of new standards/specifications.
3. It has been decided that the stainless steel conforming to the requirement stipulated in IS:16651:2017 shall be used for reinforced concrete bridges (superstructure and substructure) on National Highways located in Extreme Environment Exposure as defined in IRC:112:2020. In locations, where it is difficult to ascertain the environment exposure condition, a zone within 15 km from the sea or creek shall be considered as Extreme Environment.
4. The contents of this Circular may please be brought to the notice of all the Concerned in your Organization for strict implementation. This circular will be implemented from the date of its issuance.
5. This issues with the approval of the Competent Authority.

Yours faithfully,



(Jitendra Kumar),
Superintending Engineer, S&R - (Bridges),
For Director General (Road Development) & SS.

P.T.O

Copy to:

1. All Technical Officers in the Ministry of Road Transport & Highways.
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