

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport & Highways)

G-5 & 6, SECTOR-10, DWARKA, NEW DELHI-110045

PHONE : 91-11-5074100/5074200

Fax : 91-11-5093507/5093514

Extn. : 2223/2318/2468/2553

No. 11041/218/2007-Admn.

August 18, 2010

POLICY MATTER: TECHNICAL (66 /2010)
[Decision taken in TIC File No. NHAI/11018/43/2008/PQ]

NHAI is receiving reference to review the standards for steel to be used for NHAI projects on the pretext that some of the secondary producers are able to produce steel matching with the laid down standards as being produced by primary producers.

It is reiterated that the steel should be confirming to specifications laid down in Section 1009 of MOST Specification for Road and Bridge Works 4th Edition and in case of PPP projects provisions of Section 8.8 of IRC-SP: 84-2009 will also apply.

The extract of Section 8.8 of IRC-SP:84-2009 along with list of main and major producers of steel as per website of Ministry of Steel is enclosed as appendix for ready reference.

No deviation from the Existing Standards is permitted by NHAI, any case of deviation noticed in any contract will be reported to NHAI-HQ for examination.

This issues with the approval of Chairman.

(M Chandrashekhar)
(GM (TIC))

To

PS to Chairman
PS to All Members
All CGMs/CVO
All GMs/DGMs
All PIUs/CMUs/SPVs

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8.8 Steel

8.8.1 Steel for prestressing

In addition to the requirement mentioned in Clause 1009.2 of MO
steel for prestressing shall satisfy following conditions:

ions, the

- i) Uncoated stress relieved low relaxation steel conforming to IS:14268.
- ii) Prestressing steel shall be subjected to acceptance tests in respect of modulus of elasticity, relaxation loss at 1000 hrs., minimum ultimate tensile strength, stress-strain curve etc. prior to actual use on works as per guidelines contained in BS:4447. The modulus of elasticity value, as per acceptance tests, shall conform to the design value, which shall be within a range not more than 5 percent between the maximum and the minimum.

8.8.2 Reinforcement/Untensioned Steel

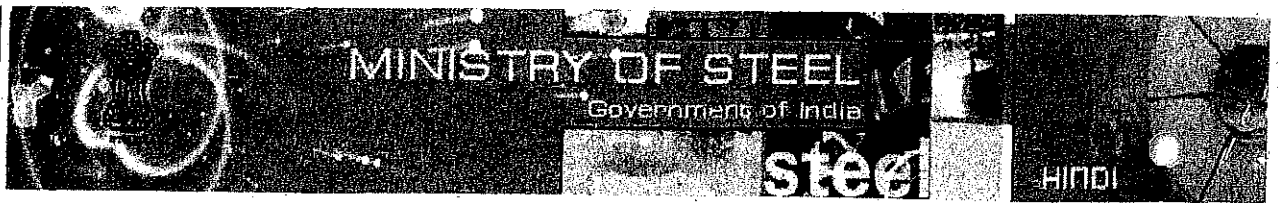
- i) Only Fe 500 grade of steel shall be used on works and all reinforcing steel for use in works shall be procured from main/major producers. Fe 415 grade of steel can also be used where permissible as per IRC Codes and Guidelines.
- ii) Only fresh steel shall be brought to the site. Every bar shall be inspected before assembling on the work; and defective, brittle or burnt bars shall be discarded. Cracked ends of bars shall be cut before use.
- iii) Only Thermo Mechanically Treated (TMT) bars conforming to IS:1786 shall be used as reinforcing steel.
- iv) All reinforcement shall be free from loose rust and coats of paints, oil, mud or any other substance, which may destroy or reduce bond. The reinforcement bars bent and fixed in position shall be free from loose rust or scales, coats of paints, oil, mud or chloride contamination and other corrosion products. Where cleaning of corroded portions is required, proposal for effective method of cleaning such as sand blasting shall be submitted to the IE for prior review and comments.
- v) Proprietary steel products will be permissible provided they conform to the minimum requirements.

8.8.3 Steel for bearings

Mild steel, high tensile steel, cast steel, steel forgings, and stainless steel shall conform to the provisions contained in Clause 925.1 of IRC:83 (Part III).

8.8.4 Structural Steel

All structural steel, castings and forgings, fasteners (bolts, nuts, washers and rivets), welding consumables and wire ropes and cables shall conform to the provisions of Clause 505.1.2, 505.2, 505.3, 505.4 and 505.6 respectively of IRC:24.



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Indian Iron & Steel Makers

I Steel Producers

A. Main Producers

- Steel Authority of India Ltd. (SAIL) <http://www.sail.co.in/>
- Rashtriya Ispat Nigam Ltd. (RINL) <http://www.vizagsteel.com/>
- TATA Steel Ltd. (TSL) <http://www.tatasteel.com>

B. Major Producers

- JSW Steel Ltd. <http://www.jsw.in>
- ESSAR Steel Ltd. <http://www.essar.com>
- Ispat Industries Ltd. <http://www.ispatind.com/>
- Jindal Steel & Power Ltd. <http://www.jindalsteelpower.com/>

C. Other Producers (Mini Steel Plants)

- EAF based Units : 33 working units
- Induction Furnace based units : 970 working units
- MBF-ETF based units : 2 units

II Sponge Iron Producers

A. Gas based Sponge Iron Units

- ESSAR Steel Ltd. <http://www.essar.com>
- Ispat Industries Ltd. <http://www.ispatind.com/>
- Vikram Ispat Ltd.

B. Coal based Sponge Iron Units : 321 units

C. Sponge Iron India Limited

<http://spongeironindia.com/>

D. Orissa Mining Development Corporation