


**5x800MW YADADRI TPS**

**TECHNICAL SPECIFICATION  
FOR  
MS ROD FOR BELOW GROUND EARTHING**


**SPECIFICATION NO. : PE-TS-417-509-E002  
REVISION : 0**



**BHARAT HEAVY ELECTRICALS LIMITED  
POWER SECTOR  
PROJECT ENGINEERING MANAGEMENT  
NOIDA – 201301**

	<p>TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING</p> <p><b>5x800MW YADADRI TPS</b></p>	<p>SPECIFICATION NO. <b>PE-TS-434-509-E002</b></p> <hr/> <p>REV NO.: 0    DATE : 03.03.2021</p> <hr/> <p>SHEET : 1    OF 3</p>
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## STANDARD TECHNICAL REQUIREMENTS

	<p align="center"><b>TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING</b></p> <p align="center"><b>5x800MW YADADRI TPS</b></p>	<p>SPECIFICATION NO. <b>PE-TS-434-509-E002</b></p>
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		<p>SHEET : <b>2</b> OF <b>3</b></p>

## 1.0 INTENT OF THE SPECIFICATION

1.1 This specification covers the design, manufacture, inspection & testing, packing at manufacturer's works and delivery to site of **MS ROD FOR BELOW GROUND EARTHING**.

1.2 The intent of specification is not to specify all details of design & construction of material. The material shall, however, conform in all aspects to high standard of design, engineering and workmanship and be capable of performing in continuous operation upto & after bidder's guarantee period in manner acceptable to purchaser who will interpret the drawings & specification and shall have power to reject any work or material which in his judgement is not in full accordance with this specification.

## 2.0 CODES & STANDARDS

2.1 The material shall comply with all currently applicable safety codes and statutory regulations of India as well as of the locality where the material is to be installed.

2.2 Applicable Standards (Latest amendment to be referred): -

- a) **IS 2062, Grade designation E250 quality A:** Hot Rolled Low, Medium and High Tensile Structural Steel.
- b) **ASTM A 510M Grade No. 1010 (SAE No. 1010) /1018 (SAE No. 1018) /1020 (SAE No.1020):** Standard Specification for general requirements of wire rods and coarse round wire, carbon steel.
- c) **IS 1875, Designation 15C8 class 1A:** Carbon Steel Billets, Blooms, Slabs and bars for forging – Specification.

## 3.0 TECHNICAL REQUIREMENTS

3.1 Straight lengths of MS rods of standard diameter of **40 mm in minimum length of 9 m** shall be supplied.

3.2 All finished MS rods for Below Ground Earthing shall be free from sharp edges, corners, burs & unevenness.

3.3 Bidder to supply order quantity indicated in the Technical Specification. Overall tolerance on total dispatched quantity shall be restricted to  $\pm 3\%$  in line with IS 2062.

## 4.0 QUALITY / INSPECTION

4.1 The supplier shall perform all tests necessary to ensure that the material and workmanship conform to the relevant standards and comply with the requirements of this specification.

4.2 The tests shall be in accordance with relevant Indian/American standards. The extent of the tests to be performed by the supplier shall include but not be limited to the following: -

a) Routine Tests:

(i) Tests for Chemical Composition

(ii) Test for Mechanical Properties.

Necessary Test Certificates shall be submitted to BHEL for review before actual dispatch of material.

## 5.0 PACKING

The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.

Note- Vendor shall submit the dates for drawing/document submission/BHEL comments/resubmission/approval after approval of documents.



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MS ROD FOR BELOW GROUND EARTHING  
**5x800MW YADADRI TPS**

SPECIFICATION NO.  
**PE-TS-434-509-E002**

REV NO. : 0 DATE :03.03.2021

SHEET : 3 OF 3

**BOQ FOR BELOW GROUND EARTHING (MS ROD)**

S.NO.	ITEM DESCRIPTION	UNIT	ORDER QUANTITY
1)	40 mm Dia MS ROD	MT	720



**PRE-QUALIFICATION REQUIREMENTS FOR  
MS ROD**

PE-PQ-999-509-E001

REVISION NO. 05 DATE 29.01.2020

SHEET NO. 1 OF 1

**SCOPE:** Supply : YES; Erection & Commissioning : NO;

1	Vendor should have in-house manufacturing facility of MS rods greater than 30mm dia (as per IS: 2062 Grade designation E250 quality A or as per ASTM A 510M Grade No. 1010 (SAE No.1010)/1018 (SAE No.1018)/1020 (SAE No.1020) or as per IS 1875 designation 15C8 class 1A.
2	Vendor should be a manufacturer of steel or their approved re-roller.
3	Vendor should have capability of manufacturing MS rods of about 500 MT per month.
4	Manufacturer of steel should have in-house capability to carry out all applicable tests as per relevant standards.
5	Manufactured & supplied at least 1000 MT of MS rods in one or more orders and at least 100 MT in a single order.
6	Minimum two (2) nos. purchase orders for MS rods be submitted which should not be more than five (5) years old from the date of application for registration or date of techno-commercial bid opening (as applicable) for establishing continuity in business.

**NOTES-**

1. SAIL/RINL, need not furnish documents in support of above PQR criteria.
2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
3. Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
4. Any other project specific pre-qualifying requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
6. After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.

PREPARED BY  NAME: VIKAS KUMAR SINGH DESIGNATION: Dy. MGR (E3)	REVIEWED BY  NAME: P. Dutt DESIGNATION: (P. Dutt, SDGM)	APPROVED BY  NAME: P. Dutt DESIGNATION:
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**BHEL PEM-ELECTRICAL**  
**PRE-QUALIFYING REQUIREMENTS FOR MS ROD FOR BELOW GROUND EARTHING**  
**ANNEXURE - I**  
**PROJECT SPECIFIC CRITERIA AGAINST ENQUIRY**  
**PROJECT: 5X800MW YADADRI TPS**

**-----NIL-----**

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