

**BHADRADRI TPS (4 X 270MW)  
EPC PACKAGE**

**VOLUME - II**

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

**SPECIFICATION NO. : PE-TS-411-509-E002  
REVISION : 0**



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



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SHEET : **1** OF **3**

**STANDARD TECHNICAL REQUIREMENTS**

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## 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:-

- a) **IS 2062, Grade E250 Sub-quality A:** Hot Rolled Low, Medium and High Tensile Structural Steel.
- b) **ASTM A 510M-08\* Grade SAE 1010/1018/1020:** Standard Specification for general requirements of wire rods and coarse round wire, carbon steel.

## 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.

## 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.

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

S.NO.	ITEM DESCRIPTION	UNIT	ORDER QUANTITY
1)	40 mm Dia MS ROD	MT	200