



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-2-Feb-21

CORRIGENDUM- 03

PROJECT	:	1x 660 MW Bhusawal TPS
PACKAGE	:	Single Girder EOT/HOT Misc. Cranes
ENQUIRY NO	:	PE/PG/BHU/E-6580/20, Dt:- 13.01.21
SUBJECT	:	Replies to Pre Bid Queries/ Pre Bid Clarification

Type of Corrigendum			
Technical Corrigendum -	<input checked="" type="checkbox"/>	Commercial Corrigendum -	<input type="checkbox"/>

In reference to the above mentioned tender enquiry for **Single Girder EOT/HOT Misc. Cranes** package

Please note the following.

1. Please find the enclosed replies to pre bid queries/ Pre bid clarification.
2. All other terms and conditions shall remain same.

Yours faithfully,

For and on behalf of BHEL



1X660MW Bhusawal TPS-Unit: 6

SINGLE GIRDER EOT CRANE

SPECIFICATION No: PE-TS-415-524-A001

VOLUME: III

SECTION-III

SUB-SECTION-IIID

REV 00

DATE 02.02.2021

SUB SECTION-IIID

PRE BID CLARIFICATIONS



1X660MW Bhusawal TPS-Unit: 6

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PRE-BID CLARIFICATIONS

S. No.	Section/Clause/ Page No.	Statement of the referred clause	Clarification Required	BHEL's clarification
1	SUB-SECTION-IA, Clause - 5.12.3, Page 36 of 248.	As per Cl- 5.12.3 rail should be consider as per IS 3443.	In IS 3443 mention rail is CR 60, CR80. CR60 Rail is obsolete from market and CR 80 rail is very heavy for single girder EOT crane. Please provide the approval for 50sq bar rail, which is sufficient for single girder EOT crane.	Bidder has to provide rails as per IS:3443 only. Bidder may opt to provide non metric rails as mentioned in IS:3443.
2	SUB-SECTION-IA, Clause - 5.13.1, Page 36 of 248.	As per cl-5.13.1 wire rope construction 6x37 hemp core.	But as discussed with our vendor The Usha martin is not manufacturing 6x37 construction wire rope. Please provide the approval for steel core 6x36 wire rope construction	6 X 36 wire rope construction as per IS:2266 is acceptable.
3	SUB-SECTION-IA, Clause - 5.5.3, Page 31 of 248	As per Cl. no 5.5.3 platform should be provided with hand railing.	But in single girder EOT crane there is not sufficient space for platform.	Platforms with handrails are to be provided for maintenance of LT machinery & LT wheels and approach for platforms should be from walkway at Gantry girder level..
4	SUB-SECTION-IA, Clause - 5.22.3, Page 40 of 248	As per clause 5.22.3 slip ring motor is mention.	But with VVFD the slip ring motor is Not possible to use. We will provide sq cage induction motor please accept the same.	Please refer Page 173 of 248, clause 4.1.1. Squirrel cage induction motors are acceptable.
5	-	-	We will provide the only earthing strip GI TYPE. Remaining earthing arrangement is BHEL scope.	Refer Page 171 of 248 of specification 4. Equipment Earthing All equipment metallic enclosures / frames, metal structure etc. shall be grounded at two points each to the nearest grounding points / risers provided by BHEL. Refer Page 222 of 248 of specification 29.1 Material of earthing Material of earthing - G.I. / Copper
6	-	-	While uploading the Techno- Commercial Bid of the offer, we find following discrepancy in the Technical Specification of Hazardous Area-Item SI- 2.1.1 - Fuel Oil (Transfer) Pump House And Item- SI- 2.1.2- Fuel oil (pressurizing and hearing Pump House) . The	Please refer Page 222 of 248 of specification – “NOTE: SPECIAL HAZARDOUS AREA REQUIREMENT FOR 2T CAP. SINGLE GIRDER EOT CRANE IN FUEL OIL PUMP HOUSES.”



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following points to be clarified:

- 1) You have desired LT Flexible Trailing cables : Kindly clarify, if, it will be PVC/EPR/FRLS. As per CMFRI, Dhanbad/ PESO- It should be FRLS and Trolley to move on Beam, should Phosphor Bronze/ PVC Moulded.
- 2) You have desired VVVF Drive for Hazardous Area Crane. Please note that for Heat presipating, for VVVF Drive, Lovers required to be provided along with cooling fan. As per CMFRI/Poso, for fire safety, Holes or opening, is not allowed.
Hence for Hoist Motion, if, you require Creep, it will be either a Planetary Gear Box or with Two Speed Motor. All Panel enclosures and other Electrical parts have to be CMFRI/Peso Design & materials approved. The above all are required for Fire safety in Hazardous Area Cranes & other equipment. In the Tender specification, you have not provided technical specification of Hazardous Area Cranes- such as Wheels, Sheave, Hooks etc. There should not be steel to steel contact. Similarly makes of Electrical components may defer, as the manufacturers products, should be approved either by CMFRI, Dhanbad or Peso, Nagpur.

These areas fall in Zone 2 hazardous area classification – “An area in which an explosive atmosphere is not likely to occur in normal operation but, if it does occur, will persist for a short period only.” as per IS 5571 and 5572.

As per specification, all wheels shall be provided with phosphor bronze type. Any other mechanism where two non-lubricated parts mate, one of them shall be for non-ferrous material like phosphor bronze aluminum bronze. All electrical components/ equipment for EOT cranes (motors, panels, VFD drive etc.) shall meet the requirements of hazardous area & shall be explosion proof type. Coupling guards shall be non-sparking (i.e. non-ferrous/non-metallic) type.

LT Flexible Trailing cables (Cu) shall be EPR Fire resistant cables.

To resolve the issue of heat dissipation through fire resistant panels, you may opt to provide optimum size of panel without openings/ fans so that necessary heat dissipation can take place through surface of panels.

The makes list is indicative only and additional sub-vendor approval shall be considered subject to customer approval during detailed engineering stage without any commercial and delivery implication to BHEL.