



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 06

Ref: PSER:SCT:KLN-C1751:TCN-06

Date: 19-07-2016

Sub	Tender Change Notice (TCN) - 06.	
Job	Design, Engineering, Manufacture, supply, installation and handing over of pre-fab structure for field hostel and residential quarters, Site office & Covered store with all necessary electrical fittings, supply and installation of furniture and furnishings etc., associated civil works (Sub structure excluded but floor finish included in this package) and all other incidentals complete as per requirement and specification at 2x660 MW Maitree STPP, Rampal, Bangladesh.	
Ref	1.0	Tender no PSER:SCT:KLN-C1751:16.
	2.0	BHEL's NIT, vide reference no PSER:SCT:KLN-C1751:5077, Dated 16-06-2016.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:KLN-C1751:TCN-01, Dated: 22-06-2016.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:KLN-C1751:TCN-02, Dated: 30-06-2016.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:KLN-C1751:TCN-03, Dated: 02-07-2016.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:KLN-C1751:TCN-04, Dated: 08-07-2016.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:KLN-C1751:TCN-05, Dated: 15-07-2016.
	8.0	Other References, if any.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting the offer.

- 1) Clarification / Modification to tender terms is attached vide **Annexure-A to TCN-06**.
- 2) **QUALITY ASSURANCE PLAN** for 5T EOT Crane inside closed storage shed is attached vide **Annexure-B to TCN-06**.
- 3) Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
- 4) All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

Engineer (SCT)

Encl: As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : (033) 23398234/ 23398000

ANNEXURE-A TO TCN-06			
JOB: Design, Engineering, Manufacture, supply, installation and handing over of pre-fab structure for field hostel and residential quarters, Site office & Covered store with all necessary electrical fittings, supply and installation of furniture and furnishings etc., associated civil works (Sub structure excluded but floor finish included in this package) and all other incidentals complete as per requirement and specification at 2x660 MW Maitree STPP, Rampal, Bangladesh.			
TENDER NO : PSER:SCT:KLN-C1751:16			
<u>CLARIFICATION / MODIFICATION</u>			
SI No	Reference Clause of Tender Document	Existing Provision	Modified Provision
1	Sl. No. 4.4.0 of Specification cum Compliance Certificate for Single Girder EOT Crane Capacity: 5 Ton of Technical Specification of Covered Store of VOLUME-IF-TS-FIELD HSTL + RESD QTR + OFC BLDNG + STORE	As per scope sl. no. 4.4.0 of 5 T capacity single girder crane girder - Span (it may be vary as per design drawing of vendor)	Span (Minor changes acceptable to BHEL shall be finalised during detailed engineering.)
2	Sl. No. 4.5.0 of Specification cum Compliance Certificate for Single Girder EOT Crane Capacity: 5 Ton of Technical Specification of Covered Store of VOLUME-IF-TS-FIELD HSTL + RESD QTR + OFC BLDNG + STORE	As per scope sl. no. 4.5.0 of 5 T capacity single girder crane girder - Height of Lift: (it may be vary as per design drawing of vendor)	Height of Lift: (Minor changes acceptable to BHEL shall be finalised during detailed engineering.)
3	Sl. No. 4.10.0 of Specification cum Compliance Certificate for Single Girder EOT Crane Capacity: 5 Ton of Technical Specification of Covered Store of VOLUME-IF-TS-FIELD HSTL + RESD QTR + OFC BLDNG + STORE	As per scope sl. no. 4.10.0 of 5 T capacity single girder crane girder – Hoist: Hoist should be as per IS: 3938 (latest version) of STAHL, DEMAG, INDEF make. Only Low Head Room Hoist shall be acceptable.	Hoist: Hoist should be as per IS: 3938 (latest version) of STAHL, DEMAG, INDEF, Toubro or equivalent make. Only Low Head Room Hoist shall be acceptable.
4	Sl. No. 15.1.4 of Specification cum Compliance Certificate for Single Girder EOT Crane Capacity: 5 Ton of Technical Specification of Covered Store of VOLUME-IF-TS-FIELD HSTL + RESD QTR + OFC BLDNG + STORE	As per scope sl. no. 15.1.4 of 5 T capacity single girder crane girder - DCEM Brake Unit: BCH / EPC	DCEM Brake Unit: BCH / EPC/ Toubro or equivalent make.

ANNEXURE-B TO TCN-06

2x660 MW Maitree STPP, Rampal, Bangladesh
QUALITY ASSURANCE PLAN FOR 5 T EOT CRANE INSIDE CLOSED STORES SHED

Reference : Tender Specification No. PSER:SCT:KLN-C1751:16.

[NOTE : This is a suggestive draft Quality Assurance Plan only. The Contractor has to submit the Quality Assurance Plan for approval of BHEL within 30 days from the date of LOI.]

Sl. No.	Component & Operation		Characteristics checked	Category	Type of check	Quantum of Check	Reference Documents	Acceptance Norms	Format of Record	Inspection Agency	Remarks
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.0.	RAW MATERIAL CONTROL										
1.1	Structural material for bridge girder, end carriage, crab frame		Chemical & Physical	Major	TC Correlation/ Check test	1 sample per size	IS 2062/1992	IS 2062/1992	TCs/ Test check report	Crane Supplier	Submission to BHEL
			Internal Defects	Critical	UT	100% on 20 mm and above	ASTM-A435/ IS 4225	ASTM-A435/ IS 4225	UR Report	Crane Supplier	Submission to BHEL
1.2	Rope Drum										
	a)	If fabricated from plates SAW Pipe	Chemical & Physical	Major	TC Correlation	100%	IS 2062/1992	IS 2062/1992	TCs/ Test check report	Crane Supplier	Submission to BHEL
			Radiography & Stress Relieving	Major	TC Correlation	100% for Weld Joints	ASME-Sec-VII	ASME-Sec-VII	TC	Crane Supplier	Submission to BHEL
b)	If seam less pipe used	Chemical & Physical	Major	TC Correlation	100%	ASTM A-106B	ASTM A-106B	Test check report	Crane Supplier	Submission to BHEL	
1.3	Gears, Pinions and Wheels		Chemical & Physical	Major	TC Correlation/ Check test	1 sample per size	IS 1570/ BS 970/ IS 3177	IS 1570/ BS 970/ IS 3177	TCs/ Test check report	Crane Supplier	Submission to BHEL
1.4	Brake Drums & Pulleys		Chemical & Physical	Major	TC Correlation/ Check test	1 sample per size	IS 1570/ BS 970/ IS 3177	IS 1570/ BS 970/ IS 3177	TCs/ Test check report	Crane Supplier	Submission to BHEL
1.5	Hooks		Chemical & Physical	Major	Test Report	100%	IS 1875/ IS 15560/ IS 3177/ IS 5749	IS 1875/ IS 15560/ IS 3177/ IS 5749	TCs	Crane Supplier	Submission to BHEL
			Ultrasonic & Proof Load Test	Major	Test Report	100%	IS 3664/ IS 15560/ IS 5749	IS 3664/ IS 15560/ IS 5749	TCs	Crane Supplier	Submission to BHEL
1.6	Wire Ropes		Identification & Dimensional conformity	Major	TC	100%	IS 2266/ IS 3177	IS 2266/ IS 3177	Manufacturer's TCs	Crane Supplier	Submission to BHEL

ANNEXURE-B TO TCN-06**2x660 MW Maitree STPP, Rampal, Bangladesh****QUALITY ASSURANCE PLAN FOR 5 T EOT CRANE INSIDE CLOSED STORES SHED****Reference : Tender Specification No. PSER:SCT:KLN-C1751:16.**

Sl. No.	Component & Operation	Characteristics checked	Category	Type of check	Quantum of Check	Reference Documents	Acceptance Norms	Format of Record	Inspection Agency	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.7	Rails	Visual & Dimensional	Major	Measurement	100%	IS 3443/ IRS/ BS 11	IS 3443/ IRS/ BS 11	Inspection Report	Crane Supplier	Submission to BHEL
1.8	Gear Couplings	Visual & Dimensional	Major	Measurement	100%	Component Drawing/ Manufacturer's Catalogue	Component Drawing/ Manufacturer's Catalogue	Manufacturer's TCs	Crane Supplier	Submission to BHEL
1.9	Bearings	Visual & Dimensional	Major	Measurement	100%	Bearing Catalogue	Bearing Catalogue	Inspection Report	Crane Supplier	Submission to BHEL
2.0	IN PROCESS CONTROL									
2.1	Welding of Box Girder, Crab & End Carriages etc.	WPS/ WPQ/ PQR Records	Major	Verification		ASME-SEC-IX	ASME-SEC-IX	WPS/ PQR/ WPQ record	Crane Supplier	Submission to BHEL
		Welding Size	Major	Measurement	10%	Component Drawings	Component Drawings	Inspection Report	Crane Supplier	Submission to BHEL
		D.P. Test	Major	NDT Test	100% for Butt-weld 10% for Fillet weld			Inspection Report	Crane Supplier	Submission to BHEL
		Radiography	Critical	NDT Test	100% in tension zone and 10% in other than tension zone	ASME-SEC-VIII	ASME-SEC-VIII		Crane Supplier	Submission to BHEL
2.2	Gears, Pinions & Wheels	Ultrasonic/ Hardness Test	Major	NDT Test	100%	IS 3664/ IS 3177	IS 3664/ IS 3177	Inspection Report	Crane Supplier	Submission to BHEL
		Dimensional	Major	Dimension Checking	100%	Component Drawing	Component Drawing	Inspection Report	Crane Supplier	Submission to BHEL
2.3	Gear Boxes	Sound Level	Major	Sound Check	100%	85 Db from 1 Metre	85 Db from 1 Metre	Inspection Report	Crane Supplier	Submission to BHEL
		Temperature Rise	Major	Temperature Check	100%	IPSS	IPSS	Inspection Report	Crane Supplier	Submission to BHEL
		Oil Leakage	Major	Leakage Check	100%	1-08-020-94	1-08-020-94	Inspection Report	Crane Supplier	Submission to BHEL
		Back Lash & Tooth Contact	Major	Measurement	25%	IS 4460	IS 4460	Inspection Report	Crane Supplier	Submission to BHEL

ANNEXURE-B TO TCN-06**2x660 MW Maitree STPP, Rampal, Bangladesh****QUALITY ASSURANCE PLAN FOR 5 T EOT CRANE INSIDE CLOSED STORES SHED****Reference : Tender Specification No. PSER:SCT:KLN-C1751:16.**

Sl. No.	Component & Operation	Characteristics checked	Category	Type of check	Quantum of Check	Reference Documents	Acceptance Norms	Format of Record	Inspection Agency	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2.3	Gear Box (Continued)	Stress relieving	Major	SR Chart	100% for fabricated casing	ASME-SEC-VIII	ASME-SEC-VIII	SR Chart	Crane Supplier	Submission to BHEL
3.0	FINAL INSPECTION									
3.1	Motors	Verification of Type and Rating	Major	Manufacturer's Test Certificates	100%	IS 325 and Manufacturer's Catalogue	IS 325 and Manufacturer's Catalogue	Manufacturer's TC	Crane Supplier	Submission to BHEL
3.2	Thrustor Brakes	Verification of Type and Rating	Major	Manufacturer's Test Certificates	100%	IS 3177	IS 3177	Manufacturer's TC	Crane Supplier	Submission to BHEL
3.3	Limit Switches	Verification of Type and Rating	Major	Manufacturer's Test Certificates	100%	IS 3177	IS 3177	Manufacturer's TC	Crane Supplier	Submission to BHEL
3.4	Resistance Boxes	Verification of Type and Rating	Major	Manufacturer's Test Certificates	100%	IS 3177	IS 3177	Manufacturer's TC	Crane Supplier	Submission to BHEL
3.5	Control Panels	Functional Test + HV + IR	Major	Functional Test + HV + IR	100%	Component Drawings	Component Drawings	Manufacturer's TC	Crane Supplier	Submission to BHEL
		Verification of Components' make as per EBM	Major	Make Verification	100%	EBM of Crane Supplier	EBM of Crane Supplier	Verification Report	Crane Supplier	Submission to BHEL
3.6	Complete assembled Crane at Site for No load, load and Over load test (all arrangement including arrangement of load shall be responsibility of the Contractor)	Dimensional Speed and current checks at No load, Load and Over load	Major	Measurement of dimension and speed and current checks during no load, load and over load.	100%	IS 3177/ GA Drawing Specification	IS 3177/ GA Drawing Specification	Inspection Report	Crane Supplier	Customer Hold Point
3.7	Painting	Visual, surface preparation, DFT and Paint TC	Major	Visual, Surface roughness, DFT, validity of Paint	At random location	IS 3177/ Manufacturer's Standard	IS 3177/ Manufacturer's Standard	Inspection Report	Crane Supplier	Submission to BHEL Inspection of Final Painting at Site by BHEL

FORMAT FOR NO DEVIATION CERTIFICATE
(To be submitted in the bidder's letter head)

BHARAT HEAVY ELECTRICALS LIMITED,
 Power Sector - Eastern Region,
 Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
 Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Design, Engineering, Manufacture, supply, installation and handing over of pre-fab structure for field hostel and residential quarters, Site office & Covered store with all necessary electrical fittings, supply and installation of furniture and furnishings etc., associated civil works (Sub structure excluded but floor finish included in this package) and all other incidentals complete as per requirement and specification at 2x660 MW Maitree STPP, Rampal, Bangladesh.	
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	4.0	BHEL's TCN-02, vide reference no PSER:SCT:KLN-C1751:TCN-02, Dated 30-06-2016.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:KLN-C1751:TCN-03, Dated 02-07-2016.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:KLN-C1751:TCN-04, Dated 08-07-2016.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:KLN-C1751:TCN-05, Dated 15-07-2016.
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:KLN-C1751:TCN-06, Dated 19-07-2016.
	9.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)