



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 05

Ref: PSER:SCT:RKL-M1828:TCN-05

Date: 17-06-2017

Sub	Tender Change Notice (TCN) - 05.	
Job	Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.	
Ref	1.0	Tender no PSER:SCT:RKL-M1828:17.
	2.0	BHEL's NIT, vide reference no PSER:SCT:RKL-M1828:5666, Dated 27-04-2017.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:RKL-M1828:TCN-01, Dated 16-05-2017.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:RKL-M1828:TCN-02, Dated 23-05-2017.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:RKL-M1828:TCN-03, Dated 03-06-2017.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:RKL-M1828:TCN-04, Dated 13-06-2017.
	7.0	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. Bidder's clarification is attached vide **Annexure-A** to TCN-05.
2. Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
3. All other terms & conditions shall remain unchanged.

Bidders are requested to go through all the tender documents before submitting their offer.

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 : 2339 8000

ANNEXURE-A TO TCN-05

JOB: Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.

TENDER NO. PSER:SCT:RKL-M1828:17.

CLARIFICATION OF BIDDER'S QUERY

SL NO	REFERENCE CLAUSE OF TENDER DOCUMENT	EXISTING PROVISION	BIDDER'S QUERY	BHEL'S CLARIFICATION
1	General		Please forward us the composite layout drawings indicating all the unit (Intake pump house, switch gear room, STP, Lamella clarifier / tube settler area and RO unit) for this package.	Already given with specification in section "GRP TECHNICAL SPECIFICATION OF MAKE UP WATER PIPE LINE, ANNEX-II" of Technical Specification-SEC C2 (PART B).
2	General		Please provide HFL of Brahmani river.	Already available in CWPRS report of Technical Specification-SEC C2 (PART A).
3	General		Please Confirm that the Construction Power and Water shall be Provided by Client.	Shall be as per clause no. 12 & 13 of Vol-IF-TCC-CML-E of the tender.
4	General		Please specify the technical specifications for lamella clarifier/tube settler and details of alum dosing system.	Bidder to note that the requirement is very small, hence vendor may follow the proven design to meet the system requirement.
5	General		Please specify the technical specifications of RO system.	Bidder to follow the standard practice being followed for RO design, as requirement is very small. Vendor specific design meeting the system requirements shall be accepted.
6	FILE-4.5.4.1-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC C2- MECH (PART 1 OF 2)-R0, Sheet 14 of 5		Kindly note that mechanical design calculation of Intake well and pump house and GA drawings of River water intake pump house shall be provided during detail engineering.	Bidder to follow technical specification.
7	FILE-4.5.4.1-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC C2- MECH (PART 1 OF 2)-R0, Page 1		Water hammer study for cross-country pipeline (GRP pipe) to be done from IITs / IISc only for the same may be done from some external agency. Please advise.	Transient analysis shall be done by a reputed institute/consultant like IITs, IISc, etc. Bidder may inform details of agency, proposed by him for above study, for review.
8	PE-DG-427-100-M001, Plot Plan		We have not received this drawings	Cross-country pipeline (GRP pipe) and Raw water intake well & Pump house are located outside the plant boundary. Hence Plot plan PE-DG-427-100-M001 has no relevance with scope of work of the enquiry.
9	SUV/2016/3766/PLAN (Intake Pipe Line Area)		We have not received this drawings	Refer section-C1 of Technical specification.
10	General		Please specify the MOC of VT pump discharge recirculation line and VT pump discharge pipe within the raw water pump house.	Already mentioned in note no. 3.2 of P&ID of River water intake system attached in section – C2 of technical specification.
11	General		Capacity of spray wash pump is missing in the P&I Diagram. Please specify the same. Please also specify the detail technical specifications of spray wash system.	Capacity of spray wash pumps to be decided by bidder. Further refer Technical specification for details of spray wash pumps.
12	General		Please specify the nos. of railway crossing and national highway crossing are required for laying of raw water pipe. Please also specify the scope of railway permission, national highway permission and forest permission for laying the pipe.	Railway crossing/national highway crossing, as informed by customer (NSPCL) & as per site survey report have been indicated in piping layout drawing. However, for more detailed information bidder may visit the site. The responsibility of taking all statutory permissions from Railway, National Highway, forest, etc. shall rest with vendor.
13	FILE-4.5.4.2-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC C2- MECH (PART 2 OF 2)-R0		In the tender document requirement of AC system and ventilation system are specified for the entire area of plant which is not part of this package. Please specify the requirement of air conditioning system and ventilation system for this particular package.	The AC and ventilation for the river water intake pump house is not in bidder's scope.
14	FILE-4.5.2-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC A&B- SCOPE OF WORK-R0, clause no. 1.2.12		Please specify the requirement of fire extinguisher for this package.	The fire extinguishers are excluded from Bidder's scope.
15	FILE-4.5.5-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC C3&4- ELEC AND C&I-R0		As per tender supply of all the electrical items like LT Panel, HT panel, LT and HT cables etc is in client scope. Kindly specify the scope of supply and erection for electrical items under bidder scope for this package.	Refer electrical scope split. Supply of item no. 13 (cable trays for local cabling), 14 (lugs & glands) shall be in bidder scope. Also erection, testing and commissioning of below ground earthing material shall be in bidder scope.
16	FILE-4.5.5-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC C3&4- ELEC AND C&I-R0, SCOPE OF C&I FOR RAW WATER INTAKE SYSTEM, clause no. 13		It is specified against this clause that "All the civil, electrical etc. work related to above mentioned rooms (control room and battery room) are in bidder's scope" which is contradictory with the electrical scope of work. Kindly clarify the scope for control room and battery room.	For electrical items scope shall be as per electrical scope split.
17	General		Starter panel is in client scope of supply, kindly specify the type of starter panel shall be used for the pumps.	DOL starter is envisaged for the pump motors. Control panels shall be provided as per C&I scope matrix.
18	Technical Specification Doc. No. PE-TS-427-677-C001, SECTION – A and Mechanical Drawing No. PE-DG-427-172-N006		At mechanical scope sl. No. 1.2.6 "single girder under slung crane" has been mention in river water intake pump house. But in mechanical drawing 5 Ton EOT crane has been mention. Please confirm the type of crane.	The same shall be 5.0T single girder under slung crane.
19	Mechanical Drawing No. PE-DG-427-172-N006		10Ton Hoist having only hosting motor. The linear movement of 10 Ton hoist shall be motorized or manual. Please confirm.	The cross travel motion of the 10 T electric hoist shall be motorized.
20	Mechanical Drawing No. PE-DG-427-172-N006		Is AC drive/ VFD is require for 5 Ton EOT crane? Please confirm.	The VFD is required for the hoisting motion only as per the technical specification.
21	Mechanical Drawing No. PE-DG-427-172-N006		Please clarify Intake pump house induction motor shall be suitable for VFD operation or not?	VFD operation is not envisaged.

ANNEXURE-A TO TCN-05

JOB: Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.

TENDER NO. PSER:SCT:RKL-M1828:17.

CLARIFICATION OF BIDDER'S QUERY

SL NO	REFERENCE CLAUSE OF TENDER DOCUMENT	EXISTING PROVISION	BIDDER'S QUERY	BHEL'S CLARIFICATION
22	Geo-Technical Investigation Report		Please provide tentative soil investigation report or at least mention the type of soil for pre-bid estimation purpose.	Refer clause. No 1.01.05 of Technical Specification Section-C1. However, preliminary Geotechnical Investigation Report of raw water intake pipe line route, raw water pump house and intake well location is enclosed for reference only.
23	River Related Data		Please provide river related data like depth of scour, high flood level, low water level, and nature of soil in river bed etc. for proper designing and estimation of Intake Well and associated buildings.	Refer clause. No 1.01.05 of Technical specification Section-C1. However for reference purpose, refer CWPRS report which has been already furnished.
24	Boundary Wall		Please specify length of boundary wall to be considered for Raw Water Intake System. Please also specify size and no. of gates required.	Refer clause. No 1.01.25 of Technical specification Section-C1.
25	Nallah Crossing		Kindly mention whether there is any Nallah Crossing along the route of Raw Water Rising Main.	Nallah crossing, as informed by customer (NSPCL) & as per site survey report have been indicated in piping layout drawing.
26	Construction Power		Please indicate source of construction power and distances of the sources from project sites with regard to Raw Water Intake System.	Information may be collected during site visit.
27	FILE-4.5.5-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC C3&4- ELEC AND C&I-R0, SCOPE OF C&I FOR RAW WATER INTAKE SYSTEM, clause no. 21 (i) under section C-4	Redundancy of sensors shall be provided by bidder.....	As per Tender " <i>Triple redundancy for all analog and binary inputs required for protection of system/drives.</i> " But dual redundancy is considered in the P&I diagram for all analog instrument. Kindly confirm which to be follows.	Please follow the C&I Specification requirement for redundancy of instrument.
28	FILE-4.5.5-SCT-RKL-M1828-VOL-IF-TCC-TS-II-SEC C3&4- ELEC AND C&I-R0, SCOPE OF C&I FOR RAW WATER INTAKE SYSTEM, clause no. 5 under section C-4	Bidder to terminate..... in junction boxes.	As per Tender " <i>Bidder to terminate all instrumentation and control elements in junction boxes.</i> " <i>Kindly confirm that the termination from junction box to DCS marshalling rack is in client's scope.</i>	Please follow the Electrical scope matrix indicated in electrical portion of the specification
29	General		Please confirm that construction of sewage treatment plant (Bio digester) at Intake Pump house area is excluded from Bidders scope of work.	Construction of sewage water treatment plant at intake pump house area is in bidder's scope of work as per technical specification.
30	General		Please confirm that installation of RO plant for drinking purpose is excluded from bidder's scope of work.	Installation of RO plant for drinking purpose is in bidder's scope as per technical specification.

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, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.	
Ref	1.0	Tender no PSER:SCT:RKL-M1828:17.
	2.0	BHEL's NIT, vide reference no PSER:SCT:RKL-M1828:5666, Dated 27-04-2017.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:RKL-M1828:TCN-01, Dated 16-05-2017.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:RKL-M1828:TCN-02, Dated 23-05-2017.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:RKL-M1828:TCN-03, Dated 03-06-2017.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:RKL-M1828:TCN-04, Dated 13-06-2017.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:RKL-M1828:TCN-05, Dated 17-06-2017.
	8.0	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/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

Thanking you,

Yours faithfully,

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

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION DJ-9/1, SECTOR-II, SALTLAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 033-2339 8000