भारत हेवी इलेक्ट्रिकल्स लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT HEAVY ELECTRICALS LIMITED
(A Govt. of India Undertaking)

TCN - 05

Ref: PSER:SCT: SRG-M1650:TCN-05 Date: 19-03-2015

Sub	Tender change notice (TCN) 05	
Job	Design, engineering, supply, erection & commissioning of 'Effluent Treatment Plant' Pkg. for RRVUNL, 2x660 MW, Stage-V, Unit # 7 & 8 Suratgarh Super Critical TPS, Rajasthan.	
Ref	1.0	Tender No. PSER:SCT:SRG-M1650:15
	2.0	BHEL's NIT, vide reference no PSER:SCT:SRG- M1650:4209 Date: 13-02-2015
	3.0	BHEL's TCN-01 vide ref PSER:SCT: SRG-M1650:TCN-01 dated 26/02/15
	4.0	BHEL's TCN -02 vide ref PSER:SCT:SRG-M1650:TCN-02 dated 4/03/15
	5.0	BHEL's TCN-03 vide ref PSER:SCT: SRG-M1650:TCN-03 dated 16-03-2015
	6.0	BHEL's TCN-04 vide ref PSER:SCT: SRG-M1650:TCN-04 dated 18-03-2015
	7.0	All other pertinent issues till date.

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

1.0 Clarification to bidder's queries are attached as per Annexure-A .

2.0 Revised `No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.

3.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HYEAVY ELECTRICALS LTD

Dy Mgr (SCT)

Encl : Annexure-A to TCN -05

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)
POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091
फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

ANNEXURE-2

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, supply, erection & commissioning of 'Effluent Treatment Plant' Pkg. for RRVUNL, 2x660 MW, Stage-V, Unit # 7 & 8 Suratgarh Super Critical TPS, Rajasthan.	
Ref	1.0	Tender No. PSER:SCT:SRG-M1650:15
	2.0	BHEL's NIT, vide reference no PSER:SCT:SRG- M1650:4209 Date: 13-02-2015
	3.0	BHEL's TCN-01, vide reference PSER:SCT: SRG-M1650:TCN-01, dated 26-02-15
	4.0	BHEL's TCN-02, vide reference PSER:SCT: SRG-M1650:TCN-02, dated 4-03-15
	5.0	BHEL's TCN-03, vide reference PSER:SCT: SRG-M1650:TCN-03, dated 16-03-15
	6.0	BHEL's TCN-04, vide reference PSER:SCT: SRG-M1650:TCN-04, dated 18-03-15
	7.0	BHEL's TCN-05, vide reference PSER:SCT: SRG-M1650:TCN-05, dated 19-03-15
	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 offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

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

Design, engineering, supply, erection & commissioning of 'Effluent Treatment Plant' Pkg.
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TENDER No: PSER:SCT:SRG-M1650:15

ANNEXURE-A to TCN-05

S No	Ref. Clause of Tender Document	Existing Provision	Bidder's Query	BHEL's Clarification
1	Clause 14.13 Page 23 of 339	Flow elements shall be provided as required.	The PID is not indicating any Flow meter requirement in the Tender specification. Do Bidder shall consider only one (1 No) flow element on the discharge line of clear water transfer pumps. Please confirm.	A flow indicator cum transmitter shall be provided in the discharge line of CT Blowdown tank cum CMB and the same shall be in bidder's scope.
2	Dwg. No. PE-DG-392-164A-A001	Delivery line of all transfer pumps are with two numbers Pressure transmitter.	This type of arrangement is not recommended in single header discharge line. Please clarify if the same shall be provided.	Bidder to follow tender technical specification
3	Dwg. No. PE-DG-392-164A-A001	Level Transmitter indicated in the drawing is two numbers in a single compartment.	This type of arrangement is not recommended in a single compartment. Please clarify if the same shall be provided.	Bidder to follow tender technical specification
4	Clause 2.0, page no. 68 of 339	This clause is strike out.	Material specification for pipelines to and from ETP is clearly mentioned. But the material specification for pipe lines of various fluids inside the effluent treatment plant is not clear. Please clarify	The same is indicated in the P&ID of tender specification. Bidder to follow the same.
5	DATASHEET; Page 25 of 339	Lamella Clarifier	There is no guideline indicated for surface flow rate selection for lamella Clarifier. Do bidders are free to choose any surface flow rate for sizing the lamella clarifier. Please confirm.	Surface flow rate selection for lamella Clarifier shall be as per the supplier recommnetation.
6	Page 26 of 339 and Clause no. 5, Terminal Points, Page no 17 of339	GUARANTEE: The design condition for tube settler/ lamella clarifier shall be as per following: 1. Inlet Turbidity 500 PPM to outlet 10 PPM 2. Inlet Oil content 100 PPM to outlet 10 PPM 3. The parameters of water after treatment of effluents at the outlet of the CMB (Guard Pond) shall meet the following requirements as a minimum: a) Colour and Odour: Free of Colour and Odour b) pH value: 7 to 9 c) Temperature: Shall not exceed 5 Deg.C° above the temperature of the water received at the plant raw water reservoir d) Oil and grease: Not exceeding 10 mg/L e) Suspended solids: Not exceeding 100 mg/litre 5.0 TERMINAL POINTS 4.1 Treated water line from ETP up to CT Blowdown tank. 4.2 Service water (50 NB connection) at 5m from ETP area 4.3 Potable water (25 NB connection) at 5m from ETP area. 4.4 25 NB connection of Instrument air at pressure of 5-6 kg/cm2(g) at a distance of 5 m from ETP area 4.5 25 NB connection of service air at pressure of 5-6 kg/cm2(g) at a distance of 5 m from ETP area	If the scope is as per tender specification, there shall not be a performance guarantee of the parameters as mentioned in point 3 (i.e. 3a,b,c,d and e) after CT Blow down tank cum CMB Please clarify.	Performance demonstration at CT Blowdown tank outlet shall be in bidder scope. For system design TDS in Regeneration waste for DM/ CPU to be considered as 6000 ppm and TDS in CT Blowdown to be considered as 500 ppm .
7	WATER ANALYSIS Page no. 10 of 339 and page no. 26 of 339	RAW WATER analysis has been provided.	i) Please furnish Waste Water analysis and particle size distribution for sizing of LAMELA CLARIFIER/TUBE SETTLER/TPI SEPARATOR. ii) Furnish desired outlet water quality parameters (TSS, Oil & Grease) of LAMELA CLARIFIER/TUBE SETTLER/TPI SEPARATOR.	The average particle size in waste water shall be around 50 microns. However there could be chances of particles as low as 10 microns also. Desired outlet water quality parameters for Lamela Clarifier/tube settler shall be as per tender specification The design condition for TPI shall be as per following: Inlet Oil content 1000 PPM to outlet 10 PPM

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TENDER No: PSER:SCT:SRG-M1650:15

ANNEXURE-A to TCN-05

S No	Ref. Clause of Tender Document	Existing Provision	Bidder's Query	BHEL's Clarification
8	Clause no. 2.1.3, Page no. 14 of 339	As per Tender P&ID (Dwg. No. PE-DG-392-164A-A001 R01) TG HALL WASTE WATER SUMP (2 nos.) capacity has been mentioned as 30m3.	To design a Vertical Centrifugal pump, the depth of the tank to be indicated. The tank depth is not clear from the tender specification. i) Please clarify if it is gross capacity or net capacity. Ii) Provide the depth (Freeboard + Effective depth + Dead Level) of the sump iii) Provide the Minimum & Maximum water level of sump for selection/ design of transfer pumps.	
9	Clause no . 2.1.4, Page no. 14 of 339	As per Tender P&ID (Dwg. No. PE-DG-392-164A-A001 R01) BOILER AREA WASTE WATER SUMP (2 Nos.) capacity has been mentioned as 40m3.	To design a Vertical Centrifugal pump, the depth of the tank to be indicated. The tank depth is not clear from the tender specification. i) Please clarify if it is gross capacity or net capacity. Ii) Provide the depth (Freeboard + Effective depth + Dead Level) of the sump iii) Provide the Minimum & Maximum water level of sump for selection/ design of transfer pumps.	
10	Clause no. 2.1.5, Page no. 14 of 339	As per Tender P&ID (Dwg. No. PE-DG-392-164A-A001 R01) TRANSFORMER YARD FIRE WATER SUMP (2 Nos.) capacity has been mentioned as 160m3.	To design a Vertical Centrifugal pump, the depth of the tank to be indicated. The tank depth is not clear from the tender specification. i) Please clarify if it is gross capacity or net capacity. Ii) Provide the depth (Freeboard + Effective depth + Dead Level) of the sump iii) Provide the Minimum & Maximum water level of sump for selection/ design of transfer pumps.	
11	Clause no. 2.1.6, Page no. 14 of 339	As per Tender P&ID (Dwg. No. PE-DG-392-164A-A001 R01) COMMON COLLECTION SUMP (1 No.) capacity has been mentioned as 100m3.	To design a Vertical Centrifugal pump, the depth of the tank to be indicated. The tank depth is not clear from the tender specification. i) Please clarify if it is gross capacity or net capacity. Ii) Provide the depth (Freeboard + Effective depth + Dead Level) of the sump iii) Provide the Minimum & Maximum water level of sump for selection/ design of transfer pumps.	The capacity indicated is net capacity of the sump. Bidder to note that details like exact sump depth, free board, dead level, min and maximum level of water shall be decided and informed to bidder during detailed engineering. However for the design of Vertical Centrifugal Pumps a depth of 3.5 to 5 meters should be for all the sumps.
12	Clause no. 2.1.7, Page no. 14 of 339	As per Tender P&ID (Dwg. No. PE-DG-392-164A-A001 R01) OILY WASTE COLLECTION SUMP (1 No.) capacity has been mentioned as 10m3.	To design a Vertical Centrifugal pump, the depth of the tank to be indicated. The tank depth is not clear from the tender specification. i) Please clarify if it is gross capacity or net capacity. Ii) Provide the depth (Freeboard + Effective depth + Dead Level) of the sump iii) Provide the Minimum & Maximum water level of sump for selection/ design of transfer pumps.	
13	Clause no. 2.1.8, Page no. 14 of 339	As per Tender P&ID (Dwg. No. PE-DG-392-164A-A001 R01) CLEAR WATER SUMP (1 No.) capacity has been mentioned as 100m3.	To design a Vertical Centrifugal pump, the depth of the tank to be indicated. The tank depth is not clear from the tender specification. i) Please clarify if it is gross capacity or net capacity. Ii) Provide the depth (Freeboard + Effective depth + Dead Level) of the sump iii) Provide the Minimum & Maximum water level of sump for selection/ design of transfer pumps.	
14	Clause no. 2.1.9, Page no. 14 of 339	As per Tender P&ID (Dwg. No. PE-DG-392-164A-A001 R01) SLUDGE SUMP (1 No.) capacity has been mentioned as 5m3.	To design a Vertical Centrifugal pump, the depth of the tank to be indicated. The tank depth is not clear from the tender specification. i) Please clarify if it is gross capacity or net capacity. Ii) Provide the depth (Freeboard + Effective depth + Dead Level) of the sump iii) Provide the Minimum & Maximum water level of sump for selection/ design of transfer pumps.	
15	Dwg. No. PE-DG-392-164A-A001	PIPE TABLE	DN 32 and DN 65 is not mentioned in the Pipe table of drawing. Please clarify if we can consider the mentioned line size if water velocity as mentioned in the tender specification satisfy.	DN 32 and DN 65 is not acceptable. Bidder to follow tender technical specification
16	GENERAL		CAPACITY OF THE EFFLUENT TREATMENT PLANT	PI refer datasheet-A of Technical Specification & TCN-01.
17	GENERAL		As regards the GCC and SCC, there shall be certain clauses where considerations for deviations are necessary. These shall be submitted along with the offer for your scrutiny. Accordingly, the "No Deviation Certificate" to be discharged by us shall not be enclosed presently with the offer documents. Please let us know if the same is permissible.	Shall be as per tender

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TENDER No: PSER:SCT:SRG-M1650:15

ANNEXURE-A to TCN-05

S No	Ref. Clause of Tender Document	Existing Provision	Bidder's Query	BHEL's Clarification
18	GENERAL		The Instructions to Tenders include stipulation for authorization by Gazetted Officer on certain commercial documents like IT Clearance Certificate and Sales Tax Certificate etc. Kindly let us know notarization of the same are permitted as valid authorization	Notarization acceptable.