



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT

PROJECT : PE/PG/UPP/E-5780/2017
PACKAGE : FUEL OIL HANDLING & STORAGE SYSTEM [FOHS]
TENDER ENQUIRY NO.: PE/PG/UPP/E-5780/2017 Dt. 28.11.2017.

DATE: - 13.12.2017

Corrigendum-02

In reference to the above mentioned tender enquiry for **FUEL OIL HANDLING & STORAGE SYSTEM [FOHS]** package, there are reply of pre bid queries as appended below:

All the other terms and conditions of the tender enquiry remain unchanged. All the bidders are requested to quote accordingly.

Bidders are requested to ensure submission of offer on or before due date.

Regards

Vinit Kumar Verma
Dy. Mgr./ PG-BOP

2X800 MW UPPUR TPS FUEL OIL HANDLING SYSTEM			SPECIFICATION NO. PE-TS-425-166-A001
			SECTION: IIIE
			REV: 00 DATE: 25.10.17
			SHEET: 1 OF 1
PRE-BID CLARIFICATION SCHEDULE			
S. No.	Section/Clause/ Page No.	Statement of the referred clause	Clarification required
1	Section IA Cl No. 5.3 (a) Pg. No. 28/305	Minimum tank plates thickness shall be as specified in the Data Sheet and corrosion allowance of 2 mm comes out more than 8 mm then the nearest available. For calculating shell plate thickness IS 803 to be used.	Following references for considering the thicknesses for tank design are contradicting. Please confirm which specifications need to be followed. BHEL REPLY: Bidder to note that the plate thickness shall be as per design calculation at pages 46 & 60 of 305 of technical specification or higher as calculated by bidder.
2	Section IIA 3.1.3 Pg. No. 207/305	All tanks will be designed for the capacities, dimensions and working conditions as specified in DATA SHEET for HSD Day & Condensate Storage Tank. A 1.8 mm corrosion allowance for shells, bottom and roofs above and beyond the required thickness/calculated thickness/nominal thickness as specified in the design code shall be provided.	
3	Section IB Pg. No. 39/305	Datasheet of 80 KL LDO/HSD Day Tank.	
4	Section IC Pg. No. 53/305	Datasheet of Miscellaneous Tank (Condensate Storage Tanks).	
5	Section IA Cl No. 1.7 Pg. No. 26/305	NaOH / KOH breather and seal pot shall be provided with necessary drain valve of size 25 NB with stainless steel construction unless otherwise specified in the Datasheet and sketch for Condensate Storage Tanks.	We understand Drain Valve of size 25 NB for NaOH/KOH Breather & Seal pot will be of Stainless Steel construction & NaOH /KOH Breather & Seal pot tanks will be made up of Carbon Steel material conforming to IS 2062 Gr. B (6 mm thick) plates. Please confirm. BHEL REPLY: Bidder understanding is correct.
6	Section IA Cl. No. 4.0.0 Pg. No. 23/305	Terminal Point: HSD : Towards oil inlet nozzle. Inlet Valve of HSD Day Tank.	Scope defined in the P&ID is contradicting with the Terminal point mentioned. 1. Please clarify whether only Inlet valve (150 NB MOV as shown in the P&ID) to the HSD Day Tank is in FOHS bidders scope (supply & erection) or FOHS bidders scope starts from mentioned Ball Valve which is upstream to the Inlet of the HSD Day Tank (as per the P&ID).
7	Section IB Pg. No. 42/305	P&ID For HSD Day Tank For Auxiliary Boiler (PE-DG-425-166-A001)	2. We understand that Pipes will be free issued to the Bidders from HSD tank area to P&H Pump House as also, for return which also includes Inlet to the HSD tank. Erection & Commission of the same is under Bidders scope. Hence, BHEL to confirm the distance of FO Unloading Pump House to HSD Day tank.
8	Section IB Cl. No. 4.0.0 Pg. No. 23/305	Terminal Point: HSD : Towards oil Supply to pressuring pump for Aux. boiler i.e. from outlet nozzle. Bidder to plan the layout and size the pipe between storage tank and P&H unit in a manner so as to ensure availability of above TP pressure 1.5 Kg/cm² (a) limiting the tank foundation height for storage tanks to 1 m and the P&H unit FFL approx. 500 mm above ground level.	BHEL REPLY: 1.) Bidder scope is as indicated in the P&ID, page 42 of 305 with terminal point @ 1000 M from Pressurizing pump house. 2.) Scope shall be as per specification. For Piping BOQ Refer Main Equipment Plan, page 44 of 305 of technical specification. As per the shared P&ID outlet nozzle N2 is 100 NB (MOV). We do not know the Flow of Pressurising Pump for calculating the pressure drop. Hence, BHEL to confirm the pipe size & also the outlet N2 nozzle size.
9	Section IB Pg. No. 42/305	P&ID For HSD Day Tank For Auxiliary Boiler (PE-DG-425-166-A001)	BHEL REPLY: Specification requirement is clear. Bidder to comply specification requirement.

		2x800 MW UPPUR STPP (STAGE-1, UNIT#1&2) IN RAMANATHAPURAM DISTRICT, TAMILNADU		SPECIFICATION NO.:PE-TS-425-166-A001	
				REV.:00	
				SECTION:IA	
				REVISION 00	
				DATE: 11/12/2017	
				PAGE 1 OF 1	
PRE-BID CLARIFICAION SCHEDULE					
Sl.No	Section/Clause/Page No.	Statement of referred clause	Clariciation required (11.12.2017)	BHEL REPLY	
1	PE-TS-412-166-A001,Section-IA, 1.1.0, Pt No 5, Page No 20	Pipes from HSD tank to FO pump house and return including inlet piping to HSD tank from FO pump house will be free issued to bidder	We understood from the said two clauses, piping from HSD tank to Pressurising pump house, Return line from pressurising pump house to tank and unloading pump house to HSD tank will be supplied by you st free of cost and the same shall be erected by us.	As per the referred clause, BHEL shall provide pipes for successful bidder, i.e. Pipes from HSD tank to FO pump house and return including inlet piping to HSD tank from FO pump house.	
2	PE-TS-412-166-A001,Section-IA, 4.4.0, Page No 23 of 305	Terminal points: Inlet valve of HSD Day tank Towards oil Supply to pressuring pump for Aux. boiler i.e. from outlet nozzle Up to 1000 mm outside pressurizing pump house wall for suction & return lines. Piping from this TP is being done by HPVP. From Return of Pressurizing Pump for Aux. Boiler– From 1000 mm outside P& H pump house, Pressure – 3.0 kg/cm2 (g); Elevation- Approx. 2 m above FFL.	But as per P&ID, there is a line from existing HSD tank to unloading pump suction header which is in bidder scope. kindly clarify supply and erection of these pipes are in whose scope.	Other than this, E&C of this piping, along with supply of pipes inside tank, fittings, flanges, painting is in Bidder scope of supply. The scope of valves, fittings & other accessories and also E&C of piping is in bidder's scope of supply as per P&ID.	
3	PE-TS-425-166-A001,Section-IA, clause No: B1.5, Page No 26 of 305	Required number of tapings of 150 NB with 25NB instrument root valves shall be provided by the bidder for mounting instruments like level switches, level transmitters etc. The number of tapings shall be as indicated in the Datasheet and sketch for Condensate Storage Tanks	We understood from this clause is you are asking a stand pipe of 150NB from which we need to take tapings of 25NB for mounting of instruments. But as per sketch given by you, there is no stand of pipe, kindly clarify	Pl. refer page 57 of 305 of technical specification, wherein it is clearly shown that the instruments shall be mounted directly on tank and for this suitable instrument mounting nozzles shall be provided.	
4	PE-TS-425-166-A001,Section-IA, Clause No: B1.6(C), Page No 26 of 305	Quantity and size of spare nozzles and valves shall be supplied by the bidder as per Datasheet and sketch for Condensate Storage Tanks.	This statement is asking to supply valves as per sketch. As per sketch bidder has to supply only marked items. For Nozzles(N2, N3, N4, N5), valves are there but it is not marked. Now kindly clarify these valves are in whose scope	As clearly specified in Sketch, Valves for N2, N3, N4 & N5 are not marked & hence are in BHEL scope.	
5	PE-TS-425-166-A001,Section-IA, Clause No: C 1.0, Page No34 of 305	Accessories of air receiver like Safety relief valve, fusable plug, pressuregauge, pressure transmitter, temperature gauges, automatic drain traps to be supplied by successful bidder	Kindly provide technical specification for fusible plug	The technical specification for fusible plug shall be as per bidder's standard. Air receiver haing working pressure of 9 kg/cm2(g).	

Sl.No	Section/Clause/Page No.	Statement of referred clause	Clariciation required (11.12.2017)	BHEL REPLY
6	PE-TS-425-166-A001 Page No 45 & 58 of 305	Painting specification for HSD Day Oil Tank. Tank inside surface- Finish (Two pack silicion acrylic DFT 150 micron)	Silicon acrylic is rarely available with regular vendors so we are sugesting aliphatic polyurethane finish for internal surface of condensate storage tank please confirm. As per our experience for HSD storage tank, double boiled linseed oil is sufficient instead of epoxy painting. Kindly confirm	Bidder to comply specification requiriment.
7	PE-TS-425-166-A001 Page No 45 of 305	Painting specification for HSD Day Oil Tank. Tank outside surface-Intermediate (one layer of high build epoxy polyimide MIO DFT 100 microns, One layer of two pack zinc phosphate epoxy 100 microns) Total DFT-275 microns	Kindly note as per specification we need to apply zinc phosphate primer two coats and then intermediate MIO paint. As per this clausue on intermediate paint again we have to apply primer which is not correct. Please cross check. Total DFT is not maching, please cross check	Bidder to comply specification requiriment.
8	PE-TS-412-166-A001, page No: 39 of 305	Corrosion allowance given as 1.8	Both statements are contradicting each other. As per IS 803 minimum roof plate thickness is 5mm, if we add 1.8mm corrosion allowance, we have to select 8mm plate. Kindly clarify	Specification requiriment is clear. Bidder to comply specification requiriment.
		Minimum plate thickness including CA for roof is 6mm		
9	PE-TS-412-166-A001, Section - IA, 4.0.0, Page no 23	Up to 1000 mm outside pressurizing pump house wall for suction & return lines. Piping from this TP is being done by HPVP.	As per P&ID termination is 2000mm from pressurising pump house . Kindly clarify which one is correct	Bidder to refer page no. 23 of 305 for terminal point.
9	Clause no XXI of Volume-V: page no 120 of 305	For Turbine oil tank, LDO/HFO tank, DM water tanks, CS tank, Chemical dosing ,tanks, Acid and alkali applications, lube oil tanks, and any other tank/sump etc., only non contact type level transmitters like Acoustic, Ultrasonic, Radar based (Type as per Owner Approval) shall be provided by bidders as specified in the specification and as approved by owner.	Kindly confirm which type of level transmitter to be considered in our scope.	The type of level transmiiter to be provided shall be finalised during detail engineering.
10	PE-DG-425-166-A001 Page No 42 of 305	Valve no 00HJF06AA001	Drain nozzle shall be separate from draw off sump. N7 is given as a spare and hence one more nozzle for drain along with valve may be required. Kindly cross check	Bidder to comply specification requiriment.
11	8.04.04.4	Instrumentation Cable Interconnection & Termination Philosophy	From individual instruments to Junction Boxes we shall lay 2P Cables since >2P is of no use and already there is one pair spare we are providing. Please confirm.	Bidder to comply specification requiriment.