

PROJECT
TENDER NO.
SUBJECT

: STEAM GENERATION PLANT AT TALCHER, ODISHA
: PNMM/PC-150/E-4003/NCB
: REPLY TO PRE-BID QUERIES : LOT 11 Dated 04.03.2021

Sl. No.	Reference of Tender Document			Bidder's Query	PDIL/TFL's Reply
	Section No.	Page No.	Clause No.		
1.	PC150/E/4003/SecV I-5.3.4	SHEET 21 OF 29 SHEET 22 OF 29	6.3.1 6.3.2	Third outlet in silo shall be used for ash transportation directly to Ash/slag pond with in Fertilizer Plant premises as per system requirement (bidder's scope) Third outlet shall be used for flyash transportation directly to Ash/slag pond within Fertilizer Plant premises as per system requirement (bidder's scope).	A) Bidder is considering disposal through 2 no. (1W+1S) jet pump below each hopper with 1 disposal line from each hopper. B) Water for the same shall be arranged by customer. C) Garlanding of disposal pipe is not in the scope of bidder. A) Noted. Bidder to consider disposal in thick slurry form. B) Noted. Water Requirement shall be provided in Technical Bid. C) Noted. Amendment, if required shall be issued.
2.	PC150/E/4003/SecV I-5.3.4	SHEET 5 OF 29	3.3	Complete Bed material handling system shall be provided with storage bunker having adequate capacity to feed into boilers. For feeding of bed material into boiler, Ash conveying compressor shall be used.	A) Bidder understands that bed material bunker shall be situated near boiler and bed material/bed ash re-use/re-circulation is not envisaged. Bed ash material re-use/recirculation is not envisaged.
3.	Amendment No. XIII Dated 25.01.2021	1 of 6	1	DEFECT/DEFECTS LIABILITY PERIOD' shall mean a period of 24 months commencing from the date of COMMISSIONING. CONTRACTOR shall warrant that the equipment and material supplied under the CONTRACT shall be new and free from any defect or deficiency with respect to design, material and workmanship. However, extended DEFECT LIABILITY PERIOD shall have an upper limit of 36 months for extended DEFECT LIABILITY PERIOD, starting from the COMMISSIONING.	We request to keep the defect liability period of 12 months only and accordingly extended defect liability period to be 24 months from the date COMMISSIONING. Bidders to comply Amended NIT condition.
4.	Amendment No. XIII Dated 25.01.2021 Warranties and Guarantees	4 of 6	5	The referred clause is amended hereunder: The warranty period for the EQUIPMENT supplied by CONTRACTOR shall be valid for minimum 24 months for all EQUIPMENT except for catalysts from the date of COMMISSIONING. The warranty period for individual catalyst shall be up to its guaranteed life, as specified in FINAL PROPOSAL, from the date of COMMISSIONING.	We request to keep the warranty period of equipment for 12 months only from the date of COMMISSIONING. Bidders to comply Amended NIT condition.
5.	PC150/E/4003/SecV I-5.5	Sheet 9 of 200 and Amendment-XV dated 08.02.2021 page no 33 of 122 S.no.67	Clause 1.1	The CONTRACTOR shall provide RCC pavement for the complete area of the plant as job specific requirement. For the purpose of paving the Contractor's scope is not limited only up to Battery Limit, but shall extend up to the adjacent roads around the unit. Bidder shall ensure that sufficient area is marked and left for 2 x 45 MW STG including boiler and all associated auxiliaries within SGP block. This space shall be used for future provision for 2 x 45 MW STG including boiler and all associated auxiliaries. (Refer attached revised plot plan)	In pre bid reply 1 point no. 329, Extent of paving for the unit is up to adjacent peripheral drain, is mentioned and in amendment xv dated 09.02.21 layout to be updated for future 2x45 MW STG including boiler and its auxiliaries We shall consider our extent of paving 1.0 m all round from the outer columns for the units like Boier , ESP, chimney , SNCR , Coal & lime crusher house , Switchgear building/ control room & silo areas only . However Pipe rack, conveyor foundation area, pipe support and future 2x45 MW (STG and boiler auxiliaries) areas will not be paved. Kindly confirm As already clarified, Extent of paving for the unit is up to adjacent peripheral drain. However, Bidder shall exclude the future area of 2x45MW for paving.
6.	Amendment-XV	7 of 122	11	3.12 Liquid Ammonia, If required Quality 1. Ammonia Min. 99.9 % by wt. 2. Oil Max. 5 ppm by wt. 3. Moisture Max 0.1 % by wt. 4. Pressure, kg/cm2g 1.5 kg/cm2g 5. Temp. deg. C -33 1. During start-up, Pre-Commissioning,	We request Client to provide Aqueous ammonia with 19%concentration at SGP battery limit as required for Nox control as dilution of ammonia within SGP battery limit is complicated. NIT Condition Prevails. Bidder to consider Dilution System of Concentrated Ammonia as per requirement in their scope. The Dilution System shall be within Battery Limit of SGP.

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				Commissioning, Required Liquid/vapor Ammonia shall be in the scope of LSTK Contractor. Necessary unloading and Pumping & Handling system shall be provided by LSTK Contractor. 2. Post Successful Commissioning, Liquid Ammonia, if required shall be in the scope of owner and same shall be provided through pipeline at SGPB.L. Necessary arrangement within SGP B.L shall be made by LSTK Contractor.		
7.	Section-VI-4.0 Design Basis	Page No 13 of 61	Amendment Point No 28	<p>A Note-3 is added:- Since Boiler configuration is 2W+1S to meet the HP steam requirement of Complex, complete system shall be designed in such a way that online changeover (as and when required) from any one of working Boiler (s) to Standby Boiler shall be feasible without sacrificing the net export quality (as per sr. no.-1 of above table) & quantity of steam at any point of time.. The load of running boilers will not be ramped down until 3rd boiler is able to produce the HP steam of desired parameters and is ready to put in line to take the load. The load of any running boiler (to be taken out from the operation) shall be gradually ramped down with proportional ramp-up of 3rd boiler without sacrificing the net export quality & quantity. All associated facility i.e. equipment (s), instrument (s), electrical system, piping and any other required item shall be designed suitably for safe & trouble free operation to fulfill the above mentioned requirement</p>	<p>PC150/E/4003/SECVI.-8.0 page 6 of 11, clause 2.2 Works cost (Consumption of Raw material & Utilities) Guarantee: Maximum power available at the B.L of steam generation plant from Client shall be 8 MW during normal operation, accordingly LSTK Contractor shall select the drives of machine keeping in view relevant codes/ guidelines (IBR) requirement</p> <p>In reference to the Clause as stated above we would like to clarify, the same shall hold good only during normal operation on a cumulative basis of 24 hours with two boilers in working to meet the guaranteed steam requirement. However, during changeover when the standby boiler is taken into service, during the transition phase the average power consumption shall be more than 8 MW.</p>	<p>During normal operation of 2 boilers to meet the guaranteed steam requirement on continuous basis, the average power consumption shall be 8 MW (for 72 Hours cumulative basis).</p> <p>However, during boiler changeover case (as referred at Sl. No. 28 of Amendment No. XV dated 08.02.2021), the Peak power requirement shall not exceed 14 MW at any point of time.</p> <p>Electrical System shall be designed considering all the 3 boilers in normal operation.</p> <p>Amendment, if required shall be issued.</p>
8.	Section-VI-2.0 Raw Material, Product and Utility Specifications	Page 6 of 61	Amendment Point No10	Note: - NG shall not be vented to atmosphere and necessary arrangement for venting the NG shall be done by LSTK contractor.	As NG is used only during Boiler start up, NG venting is envisaged only during Boiler start up and the same will be vented to safe height. No flare stack / flare system is considered	Noted.
9.	PC150/E/4003/SecV I-5.3.4	69 of 122	3.1 COAL HANDLING	For coal, LSTK's contractor scope shall be started from Coal/Limestone Crusher House of Coal Gasification Plant. Coal (-) 30mm shall be received through conveyors from Coal/Limestone Crusher House (Coal/Limestone crusher house of Gasification plant not in LSTK's contractor scope) and shall be transferred to Coal feeding Bunkers of Boilers through conveyors, Crushers/Vertical Rollers Mills, screens, feeders etc. Flow of Coal (-) 30 mm at outlet of CGP crusher house is 1000TPH (Rated)/ 1200 TPH (Design). Bidder has to design downstream as per CGP crusher house outlet flow. Type of Coal crusher used in CGP crusher house is Ring-type crusher.	In order to size the crusher system, the bidder requests for Sieve analysis report of input coal at battery limit, Sieve below (-)1mm in prebid stage to decide the scheme of crushing and type of crusher and screen. Due to limited option of 100% crusher sized crusher, N+N configuration shall be offer. (N - no of working crushers)	Tentative Sieve Analysis (Typical PSD) of coal may be considered as below: < 30 mm : 100% <10 mm : 20% to 30% < 1 mm : 15% max.
10.	PC150/E/4003/SecV I-5.3.4	69 of 122	3.2 LIMESTONE HANDLING	For Limestone, LSTK's contractor scope shall be started from Coal/Limestone Crusher House of Coal Gasification Plant. Limestone (-) 30mm shall be received through conveyors from Coal/Limestone Crusher House (Coal/Limestone crusher house of Gasification plant not in LSTK's contractor scope) and shall be transferred to Limestone feeding Bunkers of Boilers through conveyors, Crushers/Vertical Rollers Mills,	In order to size the crusher system, the bidder requests for Sieve analysis report of input coal at battery limit, Sieve below (-)1mm in prebid stage to decide the scheme of crushing and type of crusher and screen. Due to limited option of 100% crusher sized crusher, N+N configuration shall be offer. (N - no of working crushers)	Sieve Analysis of Limestone shall be provided during detail Engineering stage.

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				screens, feeders etc. Flow of limestone (-) 30 mm at outlet of CGP crusher house is 500TPH (Rated)/ 600 TPH (Design). Type of Limestone crusher in CGP crusher house is reversible Hammer crusher.		
11.	Amendment XV dated.08.02.2021		Point No. 28	<p>11kV incoming Power Point. 28 of Amendment XV: "Since Boiler configuration is 2W+1S to meet the HP steam requirement of Complex, complete system shall be designed in such a way that online changeover (as and when required) from any one of working Boiler (s) to Standby Boiler shall be feasible without sacrificing the net export quality (as per sr. no.-1 of above table) & quantity of steam at any point of time.. The load of running boilers will not be ramped down until 3rd boiler is able to produce the HP steam of desired parameters and is ready to put in line to take the load"</p>	<p>As per the referred point, load at 11kV has increased and approx. load at 11kV switchboard is arrived is more than 55MVA(Considering all Margins). As per M/s Talcher/PDIL confirmation, distance between present 11kV switchboard & source (MRS) is 1300 meters.Incoming cable required for 55MVA load with above route length & 0.5% voltage drop is approx. 13-14 Runs x 1C x 630 sq.mm Al/ phase . Termination of 14 Runs per phase not possible in 11kV switchgear panel. In view of this following alternate options are proposed & M/s Talcher/PDIL may confirm Option-1: Installation of upstream transformers (customer scope at source end) near to Boiler switchgear building. Option-2: 11kV cable sizing with permissible voltage drop of 1% from source to switchboard end (upstream transformers in this alternative located at MRS).</p>	<p>Electrical System shall be designed as per Continuous Peak Load, Future Margin etc. (as per clause No. 2.1.6 m of Section VI-5.4 : Design Philosophy - Electrical), considering all the 3 boilers in normal operation. MRSS shall be located in the Area marked as Electrical Distribution System' in Revised Plot Plan, attached with Amendment-XV. For Voltage Drop etc., NIT condition shall prevail. Amendment, if required shall be issued.</p>
12.	Amendment XV dated.08.02.2021		Point No. 31 & 28	<p>1) 2W+2S BFW pumps shall be provided for all three (03) boilers. Two (02) BFP shall be steam turbine driven while other two (02) shall be electric motor driven with VFD.</p>	<p>Out of four motors two electric driven motors are stand by and remaining two turbine driven motors are working. In case of failure/outage of 1 no. of steam turbine driven BFP electric motor driven BFP will come into operation. Hence, out of the two stand by electric motors one number motor is considered with full load where as the other is considered as stand by (20% of rated power) for transformer sizing calculations. Please review and confirm.</p>	<p>Electrical System shall be designed as per continuous peak load, Future Margin etc. (as per clause No. 2.1.6 m of Section VI-5.4 : Design Philosophy - Electrical), considering all the 3 boilers in normal operation. Amendment, if required shall be issued.</p>