Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
691	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	4.11.7	20 OF 101	Coal Stockyard Dust Suppression System Spray heads shall comprise of swiveling type spray units spaced at an interval of approximately 40 meters around each coal pile as shown in **tender drawings.**	The tender drawing referred in clause is not found. Owner is requested to furnish the same.	Coal Stockyard Dust Suppression System Spray heads shall comprise of swiveling type spray units spaced at an interval of approximately 40 meters around each coal pile. Please refer amendment in this regard. Amendment No: A-MH-9
692	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20 TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	4.11.19 2.01.02,d)	21 OF 101 79 of 101	The **dust suppression system for the track hoppe**r shall consist of fifteen (15) zone headers, each of 15 meters length, routed along the entire length of track hopper on each side. Each nozzle header shall be provided with adequate number of spray nozzles spaced at 500 mm interval. Further, at the track hopper the water spray shall be of fogging type with a minimum pressure of **2.5 kg/sq.cm(g)** at spray nozzle inlet. It should be possible to operate maximum four (4) number of zones simultaneously on both sides of track hopper. Track Hopper Dust Suppression System (Plain water type) (1) Capacity of each nozzle : 2.0 lpm at **4.5 kg/ cm2**	Discrepancy observed in the referred clauses regarding nozzle pressure for dust suppression of track hopper. Bidder understand that nozzle pressure [2.5 kg/sq.cm(g)] shall be as per clause 4.11.19, page 21 of 101. Please confirm Bidder's understanding.	Bidder to refer Amendment of Technical Specification, in this regard. Amendment No: A-MH-13
693	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	4.11.20	21 OF 101	**Paddle feeder dust suppression :** The tank on P/F trolley shall be filled through flexible hose tapings from a **ring header,** which will remain, flooded through a connection from ground storage tank. This storage tank shall have make up connection from the common dust suppression system.	In case of Pump House with storage tank located nearby Track hopper area , PF Ring header will be flooded by gravity through a direct connection from ground storage tank near Pump House instead of separate storage tank arrangement. Please confirm.	Bidder to note that dedicated ground storage tank shall be provided for the ring header.
694	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	4.12.1	22 OF 101	VENTILATION SYSTEMS ; Exhaust fans shall be provided for tripper floor,	For Tripper floor (coal bunker), DE System is not mentioned in the specification, Bidder understands that DE system in tripper floor is not envisaged for coal bunker inline with past projects of NTPC. Please confirm Bidder's understanding.	Bidder's understanding is correct. DE system in Tripper floor is not specified..
695	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	2.1.3	62 OF 101	DESIGN REQUIREMENT Pressure at inlet (dry fog) Min. 0.5 kg/cm2 for water Min 5 kg/cm2 for air	Bidder understands that Air & Water quantity shall be considered as per DFDS vendor during detail engineering as the same is not mentioned in the specification. Please confirm Bidder's understanding.	Confirmed. Any requirement of treatment of water for DFDS/CFDS are also in the scope of the bidder.

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696	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	2.2.0	62 OF 101	PLAIN WATER DUST SUPPRESSION : Nozzle spacing for **Wagon tippler**	The referred clause is not applicable as the Wagon Tippler is not envisaged in this tender. Please confirm.	Confirmed.
697	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	2.3.0 (iii)	62 OF 101	Dry Fog Dust Suppression (Air receivers of Compressor air system) : One no. of min. 2 cu.m capacity located near compressors & **200 litres capacity at various location**	Bidder understands that requirement of 200 litres capacity air receiver shall be considered as per DFDS system requirement during detail engineering. Please confirm Bidder's understanding.	Technical specifications requirement are minimum. Bidder to comply.
698	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	2.6.0	63 & 64 OF 101	**Service Water System** Water connections (a) Conveyor Galleries and tunnels every 50 m (b) Transfer points & Drive house Min. 1 no. at every floor (c) Crusher House Min. 2 nos. at every floor	For CHP area, Bidder understands that service water connections are to be provided for the areas mentioned in the referred clause 2.6.0, page no. 63 & 64 of 101, part-B, section-A-20 only. Please confirm Bidder's understanding.	Bidder to provide Service Water connections to all buidlings and facilities of Coal, Limestone & Gypsum Handling plant under this Pkg.
699	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	2.7.0	64 OF 101	**Potable Water System** Water connections a) Transfer points & Drive House Minimum one (1) no. at each floor (b) Crusher house Minimum two (2) no. at each floor (c) Tripper floor Minimum one (1) no. at every tripper bay. (d) Wagon tippler top Not applicable. (e) Control room Minimum one (1) no. at each floor (f) MCC rooms and toilets Minimum one (1) no. each	For CHP area, Bidder understands that potable water connections are to be provided for the areas mentioned in the referred clause 2.7.0, page no. 64 of 101, part-B, section-A-20 only. Please confirm Bidder's understanding.	Bidder to provide Potable Water connections to all buidlings and facilities of Coal, Limestone & Gypsum Handling plant under this Pkg.
700	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	2.01.02 b)	79 OF 101	Stockyard Dust Suppression System; Maximum number of nozzles : Two (2) Nos. operating simultaneously for each stacker cum reclaimer	Bidder understands that Pump capacity of Stockyard Dust Suppression System shall be selected , considering 2 nos Sprinkler of 500 LPM operating at a time. Please confirm Bidder's understanding.	Confirmed.
701	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20 Part-A/ IIA-14 LIMESTONE & GYPSUM HANDLING PLANT	2.01.02 c) 1.01.06	79 OF 101 1 of 5	(i) Dust extraction system for Coal Crusher House -**Type** : Venturi scrubber type For Limestone storage shed and for all buildings, other equipment such as Dry type Dust Extraction system, ventilation system, drinking water system, drainage system etc. as specified elsewhere in the specification.	As per referred clause 1.01.06, Dry type DE system is envisaged for Lime stone buildings, Owner is requested to allow the same type Dry DE system in CHP crusher house also instead of Venturi scrubber type. Please confirm.	Bidder to comply the stipulations of the technical specifications.

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702	TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20 TECHNICAL SPECIFICATION, SECTION-VI,PART-B, SUB-SECTION-A-20	2.01.02 d) 4.11.19	79 & 80 OF 101 21 of 101	Track Hopper Dust Suppression System (Plain water type) No. of dust suppression nozzles that can be operated simultaneously on both side of Hopper : min. one zone or four (4) such zones (one zone means 20 mtr. Length of header on both sides) The dust suppression system for the track hopper shall consist of fifteen (15) zone headers, each of 15 meters length, routed along the entire length of track hopper on each side. Each nozzle header shall be provided with adequate number of spray nozzles spaced at 500 mm interval. Further, at the track hopper the water spray shall be of fogging type with a minimum pressure of 2.5 kg/sq.cm(g) at spray nozzle inlet. It should be possible to operate maximum four (4) number of zones simultaneously on both sides of track hopper.	Discrepancy observed in the referred clause regarding zone length and nos of operating zones at a time. Owner to confirm which clause to be followed.	Bidder to refer Amendment of Technical Specification, in this regard. Amendment No: A-MH-15
703	Coal flow diagram	4540-001-POM-A-040(OPTION-01), Rev-A		Ventilation system symbol indicated in TP-1 & TP-9.	Bidder understands that tunnel ventilation for TP-1 & TP-9 as shown in coal flow diagram is not applicable as both TPs (TP-1 & TP-9) are overground. Kindly confirm Bidder's understanding.	Confirmed.
704	Section-VI / Part-A / Sub section-IIA-15 SECTION-VI, PART-E	1.00.01 (viii) Drg. No. 4540-001-POM-A-040	2 of 7 -	At Transfer Point TP-3, Conveyor 4A/4B shall drop coal on to either Conveyor 5A or 5B. ... in Transfer Point TP-3. At TP-3 Future conveyor is indicated at discharge of Conveyor 4A and 4B along with additional flap gate.	Due to ambiguity between mentioned clause and drawing, Owner is requested to confirm the requirement for provision of future conveyor at TP-3.	Bidder to refer Amendment of Technical Specification, in this regard. Amendment No: A-MH-5
705	SECTION-VI, PART-A, SUB-SECTION-IIA-15 SECTION-VI, PART-A, SUB SECTION-IIA-03	1.00.01 -	2 of 7 1 of 1	Bio-mass shall be blended at TP- 9 through employers' Bio-mass conveyor. From TP-9, the reclaimed coal blended with Bio-mass can be conveyed to the raw coal bunkers through conveyors 4A/B, 5A/B, and onward conveyors The scope shall include the unloading, storage, transportation & feeding to coal bunkers along with all the associated systems. The storage area shall be provided with suitable firefighting system like fire hydrants and water monitors. The entire feeding system shall be provided with firefighting system including conveyors, storage silo, bunkers etc.	Discrepancy is found for scope of biomass handling in two clause. Bidder understands that Biomass unloading, storage, transportation up to TP-9 will be in Owner's scope. Owner is requested to confirm Bidder's understanding.	Bidders' undestanding is correct. Please refer Amendment No: A-SG-45

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706	Section-VI / Part-A / Sub section-III SECTION-VI, PART-E	1.04.00 List of Tender drawings	1 of 3 -	Employers Trough Conveyors (downstream of cross-country conveyors from Mine end) shall terminate at TP-1....Bidder to consider load for the employer's Coal Conveyor's drives and associated supporting structure. Similarly, Employers Biomass Conveyors shall terminate at TP-9. ...25 m span of employer's gallery may be considered by the bidder. Coal flow diagram : 4540-001-POM-A-040 Rev-A (Option -1) and (Option -2)	For design and sizing of TP-1 and TP-9, Owner is requested to furnish the following details for the feeding conveyor (Conv. 12A/B and Biomass conveyor) :- a) Conveyor capacity, Belt width, Belt speed. b) Centre distance between conveyors and Gallery cross-section. c) Drive arrangement of feeding conveyor. d) Load data to be considered in TPs (Drive, Belt tension, structural gallery load, Take-up arrangement)	Rated Conveyor capacity shall be 1760 TPH, Belt width: 1400 mm, Belt speed shall be 3.8 m/s max. As per technical specifications, bidder can optimize the layout. Therefore, other details shall be discussed & finalized during detailed engineering with the successful bidder.
707	Section-VI / Part-A / Sub section-III SECTION-VI, PART-E	1.04.00 List of Tender drawings	1 of 3 -	Employers Trough Conveyors (downstream of cross-country conveyors from Mine end) shall terminate at TP-1....Bidder to consider load for the employer's Coal Conveyor's drives and associated supporting structure. Similarly, Employers Biomass Conveyors shall terminate at TP-9. ...25 m span of employer's gallery may be considered by the bidder. Coal flow diagram : 4540-001-POM-A-040 Rev-A (Option -1) and (Option -2)	Bidder understands that dust suppression/dust extraction, Hoist along with monorail and Take-up supporting structure for Employer's conveyor at terminal point transfer tower are not in Bidder's scope. Owner is requested to confirm Bidder's understanding.	Technical specification is clear. As per the clause 1.04.00, Dust suppression arrangement at Head end, Handling arrangement (Hoist along with monorail) for drives, pulleys of employers' conveyors at TP-1 & TP-9 shall be in the scope of the Bidder.
708	SECTION-VI, PART-E	List of Tender drawings	-	General layout plan	Bidder understands that coordinates for TP-1, TP-9 and Elevation of receiving conveyors shall be finalized by bidder based on layout requirement during detail engineering. The same shall be followed by Owner's coal / Biomass handing system. Please confirm to Bidder's understanding.	Layout optimization in line with the technical specifications is in the scope of the bidder. Therefore, co-ordinates of TP-1, TP - 9 and elevations of the receiving conveyors shall be disccused & finalized during detailed engineering with the successful bidder.
709	Section-VI / Part-B / Sub section-D-1-5	5.24.00	112 of 120	CHP Workshop cum Office Building	We understand that equipments and EOT crane required inside CHP Workshop cum Office Building is not in Bidder scope. If required, Owner is requested to specify the type of EOT crane along with capacity, speed etc. In addition to the above, Owner is requested to also specify the list of equipments (if any envisaged) along with their detailed specification.	Bidder to consider minimum 5 Ton crance for workshop building. Refer Amendment No: A-MH- 31
710	TECHNICAL SPECIFICATION, SECTION-VI,PART-A, SUB-SECTION-IIA-15	1.00.01 (i)	1 OF 7	Indian Railways Coal rakes consisting of bottom discharge BOBR wagons shall transport ROM of (-) 250 mm size coal to the power plant. The coal received from BOBR type of wagons shall be unloaded in underground RCC track hopper	Tender specification is silent regarding compressed air system for BOBR wagon door opening during coal discharging to Track Hopper. Bidder understands that the same shall be in Owner's scope. Kindly confirm Bidder's understanding.	Complete compressed air system system for door opening of BOBR wagons are in the bidder's scope. Bidder to refer amendment of the Technical Specification.

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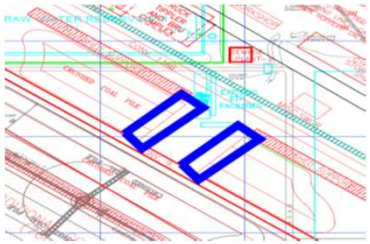
711	Part-6	4540-001-POM-A-040 (OPTION-01) 4540-001-POM-A-040 (OPTION-02)	47 of 73 48 of 73		Bidder understands that Conv.9 (Yard conveyor) shall be uni directional for unidirectional stacker reclaimer. In Flow diagram, Conv. 9 direction is showing Bi-directional. Bidder requests Owner to confirm.	Confirmed. Conveyor - 9 (Yard conveyor) shall be uni-directional as per the revised flow diagram. However, further optimization of the CHP layout by providing reversible yard conveyor and reversible Stacker cum reclaimer may be finalized provided it fulfills all the system requirment as per the tender specification. It may be noted that Crusher House shall not be located under-ground in any conditions.
712	Part-4	4540-999-POC-F-001 General Plot Plan			Bidder understands that there is no requirement of retaining wall to restrict stacked material at existing ETP area.(as marked in blue color) Bidder requests Owner to confirm.	Coal stackyard shall be continuous after dismantling of the existing ETP facility.

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713	Attachment-11, Auxiliary power consumption	Cl.no.5	2 of 4	Auxiliary Power Consumption for Unit Auxiliaries : Unit auxiliary power consumption for unit auxiliaries required for continuous unit operation at 100% TMCR i.e. 660 MW unit load shall not be more than 32000 KW.	Bidder understanding is as follows. Please confirm. Auxiliary Power Consumption for Unit Auxiliaries : Unit auxiliary power consumption for unit auxiliaries required for continuous unit operation at 100% TMCR i.e. 660 MW unit load **at 77 mHg(abs) condenser pressure with zero make up** shall not be more than 32000 KW.	Bidder understanding is correct. Refer functional gurantee chapter clause 1.01.01/(x)/Sub-section IV/Part-A, Section-VI
714	Attachment-11, Auxiliary power consumption	6	2 of 4	Auxiliary Power Consumption for Station Auxiliaries Station auxiliary power consumption : comprising of all station Auxiliaries required for continuous station operation at 2X660 MW (i.e. 100% rated load of all the units) shall not be more than 16500 KW.	Bidder understanding is as follows. Please confirm. Station auxiliary power consumption : comprising of all station Auxiliaries required for continuous station operation at 2X660 MW (i.e. 100% rated load of all the units) **at 77 mmHg(abs) condenser pressure with zero make up** shall not be more than 16500 KW.	Bidder understanding is correct. Refer functional gurantee chapter clause 1.01.01/(xi)/Sub-section IV /Part-A, Section VI
715	SECTION-VI, PART-B, SUB SECTION-A-07	5.02.00 (a)	10 of 25	In case spray type Deaerator is provided, Bidders to provide cladding on internal surfaces of storage tank and/or Stainless Steel vessels to meet HEI requirements	Please clarify the exact requirement related to cladding as the tender specification is not clear in this regard. Bidder understands that half tank cladding as per ongoing projects (SJVN Buxar, UPRRVUNL Obra, Jawaharpur etc.) to be provided in case spray type Deaerator is offered. In case of STORK type deaerator cladding to be done near sprayer area as per OEM recommendation. Please confirm acceptance.	Refer amendment in this regard. **(Amendment No : A-TG-2)**
716	SECTION-VI, PART-B, SUB SECTION-A-07	5.02.00 (f)	10 of 25	All water spray valves, splash plates, trays, vent condenser and other elements in contact with undeaerated water or non-condensable gases shall be of stainless steel SS-304 or SS-410.	As per OEM standard & proven practice for Stork and spray type deaerator, only sprayer will be made from stainless steel. Please confirm acceptance.	Bidder to comply specification requirement.
717	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	5.02.00, DEAERATOR	PAGE 11 OF 25	(d) All pressure parts like shell, heads and **nozzles shall be of carbon steel as per ASTM A-516 Gr. 70.** Shell plate min. thickness 15.8mm of welded construction.	Forged Nozzles shall be made by ASTM A -105. Plate Material (ASTM A 516 Gr.70) shall not be used. Please confirm.	Refer amendment in this regard. (Amendment No : A-TG-3)

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718	SECTION – VI, PART-B, SUB SECTION-A-08	6.00.00	16 of 19	1) It is intended to chemically clean the following piping systems and equipments. (a) Boiler feed piping system (b) Heater drains piping (c) Main condensate piping (d) Extraction steam piping (e) Reheater spray piping (**f) H.P. Heaters** **(g) L.P. Heaters** **(h) Deaerator** **(i) Gland steam cooler** **(j) Drain cooler**	HP Heaters, LP Heaters, Gland steam cooler, Drain cooler etc. shall not be part of chemical cleaning system for piping. These equipments shall be connected to piping after cleaning of piping system. After installation of heater, during any other cleaning / during storage, heater shall be preserved under Nitrogen pressure.	Bidder to refer to the note mentioned in Clause 6.00.00 where it has been clarified, which states as below: "Note: In case chemical cleaning is not to be performed as per the standard practice of the bidder for any of the above-said equipment under bidder's scope, then suitable alternate measures are to be mutually discussed & agreed during detailed engineering after award."
719	SECTION-VI, PART-B, SUB-SECTION-G-02	9.1	3 of 5	1st TDBFP will come in service at around **20%** load when required steam parameters as required for TDBFP is available	During start-up bidder proposes to take 1st TDBFP in service at around **30%** load as per practice followed by Bidder in all executed projects based on OEM recommendation. Similarly during shutdown bidder proposes to take MDBFP into service at around load below 30%. Please confirm.	This is operational requirement.Bidder to comply specification requirement.
720	SECTION-VI, PART-B, SUB SECTION-A-07	6.05.06	14 OF 25	Each drive turbine shall be provided with a complete lubricating oil system which shall provide lube oil for drive turbine, main pump, booster pump and couplings and shall also cater the control oil of governing system and turning gear oil requirements	Alternately separate Lube oil & EH oil system for BFP Turbine should also be accepted as per OEM standard. Please confirm acceptance	The specified arrangemnt will optimise the scope & reduce the complexity.Bidder proposal is not accetable. Bidder to comply specification requirement.
721	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	26	5 of 31	HP Bypass Valve complete assembly : 1 no.	Clarity to be provided regarding requirement is for bare stem valve or including actuator.	Bare stem valve is covered in point 26 page 5/31.. HP Bypass Valve Servomotor complete assembly including actuator, yoke and its control. is covered under point 27 of Page5/31..

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722	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	4.00.00 (2)	23 of 31	a. Electro-Hydraulic Converter/Servo unit/proportional valve for LPBP b. Blocking unit for LPBP (as applicable) c. Position feedback transmitter for LPBP d. Positioner for LPBP 1 set	a) Please clarify LP BP means only LP bypass stop & control valve or it is insclusive of LP bypass spray control valve also. b) 1 set means to replace 1 valve? Please clarify.	a) LP BP means complete set of valves in LP Bypass system including stop valve, control valve & spray control valves. b) Bidder's understanding is not correct. 1 set shall include quantity of each items mentioned under referred clause for complete replacement in one stream of LP bypass system as applicable for the offered system.
723	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	4.00.00 (3)	23 of 31	a. Electro-Hydraulic Converter/Servo unit/proportional valve for HPBP b. Blocking unit for HPBP (as applicable) c. Position feedback transmitter for HPBP d. Positioner for HPBP 1 set	a) Please clarify HP BP means only HP bypass control valve or it is inclusive of HP BP spray control valve & HP BP spray block valve. b) 1 set means to replace 1 valve? Please clarify.	a) HP BP means complete set of valves in HP Bypass system including HPBP control valve, spray block & control valves. b) Bidder's understanding is not correct. 1 set shall include quantity of each items mentioned under referred clause for complete replacement in one stream of HP bypass system as applicable for the offered system.
724	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	4.00.00 (4)	23 of 31	High pressure hoses for HPBP, High Pressure LPBP etc : 2 complete sets	a) Please clarify HP BP means only HP bypass control valve or it is inclusive of HP BP spray control valve & HP BP spray block valve. b) 2 set means to replace 2 HP/ LP BP control valve? or to replace all hoses in 2 unit of HP/ LP BP system including HPU. Please clarify.	1 Set consist of complete hoses required for 1 X 660 MW unit.Bidder to comply specification reuirement.
725	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	F	24 of 31	(i) Solenoid valves in the Electrohydraulic governing & protection circuit of main turbines, BFP turbines, HPBP & LPBP (ii) Solenoid valves to be used in extraction NRVs (as applicable)	a) Please clarify HP/LP BP means only HP/LP bypass control valve or inclusive of other valves like HP BP spray control valve, HP BP spray block valve & LP bypass spray control valve also. b) Solenoid valve is already requested under Sl. No. 3.00.00 control & instrumentation section (Page 29 of 31). Please clarify under which section Solenoid valves to be quoted?	a) HP/LP BP means complete set of valves in HP /LP Bypass system including stop valve, control valve & spray control valves. B) Solenoid valve to be used in extraction NRV are to be covered under under referred clause only i.e cluase no 4.00.00 (C) (page 24 of 31), Part A. Bidder to note that Solenoid valve under Sl. No. 3.00.00 (Page 29 of 31) is for CPU area.

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725	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	VI.1	8 of 31	Drip pump : Complete drip pump assembly with coupling sets (Without Motor)	Please clarify whether Pump is required with Cannister and connecting coupling.	Cannister is not required, however coupling requirement is clear and shall be provided
726	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	VI.2	8 of 31	Drip pump : Complete Bearing assembly including bearing housing, thrust bearing, carrier, journal bearing, cooling coil & thrust collar, thrust pads etc)	Bearing housing is static component (not rotating & not subject to wear) hence not recommended to be considered in spares. Please confirm acceptance. Offered pump & motor are with Antifriction bearing for thrust load, hence thrust bearing, carrier, journal bearing, cooling coil and thrust collar, thrust pads etc. not applicable.	Complete bearing housing alongwith internals to be provided as per the design of manufacturer.
727	SECTION-VI, PART-A, SUB-SECTION- VI, MANDATORY SPARES	II.1	6 of 31	Condensate extraction pumps Complete Bearing assembly including bearing housing, thrust bearing, carrier, journal bearing, cooling coil & thrust collar, etc.)	Bearing housing is static component (not rotating & not subject to wear) hence not recommended to be considered in spares. Please confirm acceptance. Offered pump & motor are with Antifriction bearing for thrust load, hence thrust bearing, carrier, journal bearing, cooling coil and thrust collar, thrust pads etc. not applicable.	Complete bearing housing alongwith internals to be provided as per the design of manufacturer.
728	SECTION – VI, PART-B, SUB SECTION-II-B-02 MOTORS	7.10.00	3 of 4	3.3/6.6 KV motors shall be offered with dust tight phase segregated double walled (metallic as well as insulated barrier) Terminal box.	Alternately Elastimold type Terminal box should also be accepted as per OEM standard proven practice. Please confirm acceptance.	Bidder proposal is acceptable
729	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	2.02.02, Condenser air evacuation pumps	PAGE 44 OF 101	Condenser air evacuation pumps: Vacuum pump I.T.D = Saturation temperature corresponding to optimized condenser pressure for the respective condenser shell (which is considered for guaranteed condenser pressure) – **specified cooling water inlet temperature to vacuum pump seal water cooler.**	Bidder would like to clarify that, the design holding and hogging capacity of the vacuum pump shall be correspond to " **specified cooling water inlet temperature to vacuum pump seal water cooler is 33 Deg C. only** ". Please confirm acceptance.	Bidder to comply specification requirement.

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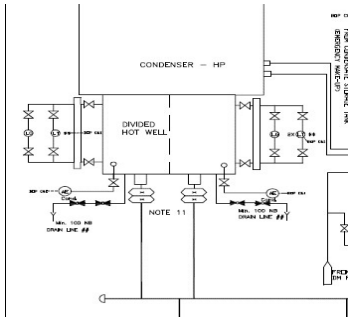
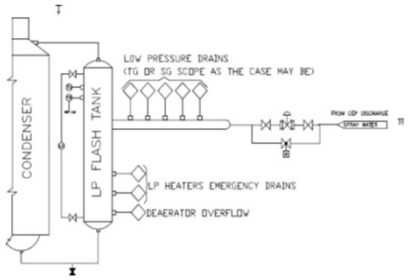
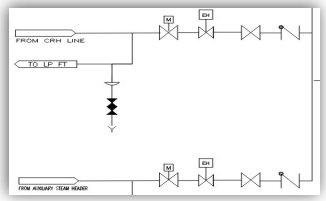
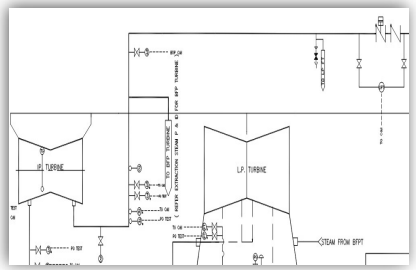
730	TECHNICAL SPECIFICATION SECTION-VI, PART-A SUB-SECTION-IIA-06 TURBINE GENERATOR AND AUXILARIES TECHNICAL SPECIFICATION SECTION-VI, PART-B SUB-SECTION-IIA-06 TURBINE GENERATOR AND AUXILARIES	7.00.00, BOILER FEED PUMPS 6.04.00, HYDRAULIC COUPLING	PAGE 6 OF 10 PAGE 14 OF 25	One thirty percent capacity (1x30%) motor driven boiler feed pump for each unit complete with booster pump along with it's drives, mechanical seals, flexible couplings, hydraulic coupling, gear box, base plate(s), forced oil lubricating system (including oil pumps, oil tank, lube oil coolers, working oil coolers, duplex oil filters etc.), regulating type low load recirculation flow control valve, mobile trolley, integral piping and valves, temporary and permanent strainers, local instrument racks/enclosures, instrumentation and control etc. shall be provided. **One (1) number portable centrifuge of adequate capacity shall also be provided.** **1x100% lube oil cooler, 1x100% Working oil cooler, one portable type oil purifier per station of adequate capacity to be included to form the centralized lubrication system for MDBFP set.**	Bidder understands that one number common portable lube oil purifier for MDBFP will be provided for per station (i.e.. 2x 660 MW plant).	Refer amendment in this regard. (Amendment No : A-TG-4)
731	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	2.05.00, Condensate Extraction pump	PAGE 49 OF 101	c) Maximum Capacity: One pump capable of handling the flow and head corresponding to **65% unit load.**	Bidder understands that 65% unit rated load means that 65% TMCR load with 0 % Makeup. Please confirm.	Please refer reference HBD (J) as per clause 1.18.01 in sub-section-A-07/Section-VI/Part-B.
732	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	2.06.00, Boiler feed pump	PAGE 50 OF 101	3) Runout point: One TDBFP shall be capable of handling flow and head corresponding to **65 % of unit rated load.**	Bidder understands that 65% unit rated load means that 65% TMCR load with 0 % Makeup. Please confirm.	Please refer reference HBD (J) as per clause 1.18.01 in sub-section-A-07/Section-VI/Part-B.

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
733	TECHNICAL SPECIFICATIONS PART-6	4540-999-POM-A-009 Condensate P&ID / Rev A			Tender P&ID shows 2 numbers CEP suction from each hot well along with individual standpipe for level measurement and conductivity analysers. As per our condenser OEM design both the hot well (Condenser 1 and condenser 2) are interconnected and water levels for both hot well will be same. Hence, Bidder proposes to provide one suction pipe from each hot well and a common level measurement and conductivity analysers.	Bidder to comply specification requirement.
734	TECHNICAL SPECIFICATIONS PART-6	4540-999-POM-A-012 STEAM DRAIN SYSTEM P&ID / Rev A		LP Heater Emergency drains are connected to condenser via LP drain Flash tank 	Bidder proposes to transfer LP feed water heater emergency drains directly to condenser. Our condenser design is capable of handling LP Drains directly. Hence, separate LP drain flash tank is not required. The total number of flash tanks shall be as per bidder's standard proven practice accepted in previous NTPC project. Please confirm acceptance.	Bidder to comply specification requirement.

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
735	Section-VI / Part-B / Sub-Section A-2-8 (Boiler Feed Pumps) Dwg. No. : 4540-999-POM-A-008	6.05.09 (d) '-	15 of 25 '-	In case bidder offer extraction steam to BFPT arrangement as per BOX-B of tender P&ID of extraction steam to BFPT then the pressure regulating valves in the CRH and Auxiliary steam line shall necessarily be electro hydraulically operated. 	As per tender P&ID, separate electro hydraulically operated control valves in auxiliary steam and CRH steam line to BFPT. Bidder wants to clarify that a common control valve will be provided in Auxiliary steam and CRH steam line to BFPT as per OEM standard practice followed in all earlier projects. Accordingly, bidder will provide the scheme for Auxiliary / CRH steam supply to BFPT. Please confirm acceptance.	Bidder to comply specification requirement.
736	Dwg. No. : 4540-999-POM-A-007	-	-		As per tender P&ID, extraction steam tapping for BFPT prior to power operated NRV. Bidder proposes to take extraction steam tapping for BFPT after power operated NRV as per their standard practice followed in past executed projects. Accordingly, bidder will provide updated scheme for extraction steam supply to BFPT. Please confirm acceptance.	Bidder to comply specification requirement.
737	SECTION-VI, PART-A, SUB-SECTION-I-A, PROVENNESS	3.1, q	4 of 36	Provenness criteria for critical equipment(s) and bought out items : q) Name of equipment : HP Bypass system Type of equipment : HP Bypass system for supercritical steam turbine generator sets Equipment rating : Capacity of each valve not less than 650 Ton/hr at 270 Kg/Cm2(abs) & 600 deg.C Main Steam pressure and temperature at Turbine inlet	Bidder/Sub vendor should be allowed to meet the refered steam parameters & Flow requirement through multiple projects (i.e multiple/different project references can be considered for meeting individual parameters (i.e Pressure, Temperature & Flow) provenness). Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply specification requirements

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
738	SECTION-VI, PART-A, SUB-SECTION-I-A, PROVENNESS	3.1, r	4 of 36	Provenness criteria for critical equipment(s) and bought out items : q) Name of equipment : LP Bypass system Type of equipment : LP Bypass system for steam turbine generator sets Equipment rating : Capacity of each valve not less than 650 Ton/hr at pressure corresponding to 100% TMCR condition reheat pressure (abs) & 600 deg.C reheat temperature at Turbine inlet.	Bidder/Sub vendor should be allowed to meet the refered steam parameters & Flow requirement through multiple projects (i.e multiple/different project references can be considered for meeting individual parameters (i.e Pressure, Temperature & Flow) provenness). Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply specification requirements
739	SECTION-VI, PART-A, SUB-SECTION-I-A, PROVENNESS	14	36 of 36	HP Bypass System are generally supplied as per Provenness clause specified above at 3.1/(q). However, to promote make in India, HP Bypass valves is also identified for Indigenous manufacturing. In case the bidder wants to supply it from Indigenous sources who does not meet the specified criteria then the bidder to make sure the requirements specified at clause 14.1 below are met. However, **supply of HP Bypass system shall be limited to only one unit from such indigenous sources** and HP Bypass valves for other unit shall be supplied only from approved sources meeting provenness requirement as specified.	Bidder requests NTPC to allow supply of HP Bypass system from such indigenous sources for **both the units** instead of limiting it to only one unit. Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply specification requirements
740	SECTION-VI, PART-A, SUB-SECTION-I-A, PROVENNESS	14.1	36 of 36	The bidder will source HP Bypass system from Indian manufacturers who are regular manufacturer of HP Bypass system for at least 500 MW or higher size supercritical unit having minimum flow of 650 Ton/Hr for each valve at Main Steam pressure and Temperature of 247 Kg/Cm2(abs) and 565 deg.C respectively at Turbine Inlet.	Bidder/Sub vendor should be allowed to meet the refered steam parameters & Flow requirement through multiple projects (i.e multiple/different project references can be considered for meeting individual parameters (i.e Pressure, Temperature & Flow) provenness). Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply specification requirements

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741	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2 TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIC CONTROL & INSTRUMENTATION SUB-SECTION-IIIC-18 IIOT, DIGITAL HELMET AND AR/VR MODEL	17 of 18 1 of 2	21.00.00 1.1	a. IIoT Solutions for Real-time Equipment and Process monitoring and for condition monitoring IIoT Solutions: IIOT solutions will include providing additional measurements for continuous/ periodic condition monitoring of equipment. This solution shall include both permanently mounted wireless devices and portable wireless devices as per the application requirements. Real-time Equipment and Process Monitoring: This shall include wireless sensors/transmitters provided with fixed mounting arrangement including. These sensors shall be located at various locations in main plant area.	a) Bidder wish to clarify that Owner has already indicated that all major equipment shall be provided with Vibration/ temperature measurement and this information shall be connected to DDCMIS. Bidder request Owner to specify additional equipment where IIOT sensors are required to be provided and also type of IIOT sensors (Vibration/ temperature) to be provided for such equipment. b) Bidder request Owner to clarify the purpose and objective of the IIOT sensors viz. Monitoring or predictive maintenance or any other purpose. c) Bidder request Owner to clarify if any interface is required between IIOT system and DDCMIS/Vibration Monitoring & analysis system/ any other system.	a) IIoT sensors are required for condition monitoring of major drives in Main Plant Area. Exact drive details shall be finalised during detailed engineering. b) The purpose of additional IIoT sensors is for condition monitoring of major drives. c) No such interfacing is required.
742	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	Annexure-B to subsection II C SMART PROJECT MANAGEMENT SYSTEM	-	-	Smart Project Management system (SPMS) shall be valid up to the COF of last Unit	Since Vendors for SPMS are not specified in Vendor list included in Tender, Bidder understands that no vendor approval from NTPC is required for SPMS and its sub-components. Please confirm.	Bidder understanding is correct.
743	TECHNICAL	Annexure-B to	1 of 4	2.00.0	Contractor shall ensure all its OEM/suppliers must affix	Bidder request Owner to clarify the High Value items and Low value items	Bidder to meet the specification requirement
744	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	Annexure-B to subsection II C SMART PROJECT MANAGEMENT SYSTEM	1 of 4	2.00.0	Contractor is required to supply Real Time Location Tracking System (RTLS) to track the near real time location of operator/ worker in the plant based on 802.11 active RFID tags or similar other technology e.g. LPWAN LoRa that serves the intent of the specifications here.	Bidder understand that the technology required to meet the intent of the specification requirement for SPMS shall be selected by Bidder and same may not necessarily be based on LPWAN LoRa. Please confirm.	Technology used for RTLS should be as per bidder stanadard practice subject to Employer approval during detailed enggineering meeting the intent of specification
745	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIIC-04 MEASURING INSTRUMENTS (PRIMARY & SECONDARY)	2 of 34	2.01.00	SPECIFICATION FOR ELECTRONIC TRANSMITTER FOR PRESSURE, DIFF PRESS AND DP BASED FLOW / LEVEL MEASUREMENTS For HART transmitter SIL 2 certification is required.	a) Bidder understands that SIL-2 transmitters are not required for all applications inline with past NTPC projects. Bidder proposes to provide transmitters inline with past NTPC project (Khargone). b) Bidder request NTPC to clearly specify applications where SIL-2 certified transmitters is required. Please confirm.	Bidder's understanding is not correct .BIdder to comply the technical specification

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746	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION - IIIC-12 SWAS	3 of 6	3.02.00	Minimum specifications of analysers Chloride : Range - 0-1000 ppb freely programmable	Bidder wish to clarify that the Chloride analyzers with minimum detection limit of 0 ppb is not available. As per SWAS measurement points indicated in Part-A, Chloride analysis is not required for SWAS. However, incase Chloride analyzer is required as per Bidder's design, then Bidder proposes to consider Chloride analyzer with minimum detection limit of 5ppb as per Bidder's requirement. Please confirm.	Bidder 's proposal is noted for chloride measurement only for SWAS requirement.
747	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIIC-02 DDCMIS	2 of 17	12.00.00	Measurement Functions of Control System: Input / output modules in the Control System shall be separate from controller hardware.	Bidder wish to inform that the referred clause requirement is for DDCMIS. This requirement is not applicable for proprietary control systems (PLC/Microprocessor based/ Relay based) supplied by equipment OEMs. Please confirm.	The reffered clause is for DDCMIS. Bidder to comply the specifications requirement.
748	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIIC-02 DDCMIS	3 of 17	14.00.00	Binary inputs shall be wired either in form of changeover type contacts (i.e. 'NC' + 'NO' together) or non-changeover type Contact ('NC' or 'NO') depending on the requirement, as defined in Part-A of specification.	Bidder could not find requirement in Part-A of specification. Bidder request Owner to please specify the requirement for selection of changeover type & non-changeover type contacts.	Binary inputs shall be wired either in form of changeover type contacts (i.e. 'NC' + 'NO' together) or non-changeover type Contact ('NC' or 'NO') depending on the requirement, as indicated in Part-E of specification.'
749	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION - IIIC-02 DDCMIS ANNEXURE IIIC-02C	1 of 5	1.01.07	Large Video Screen (LVS) 1. 80 inch, Laser illuminated Large video screens with Digital Light Processing (DLP) technology……	Bidder would like to clarify that 80 inch LVS is available in square shape. However, DCS OWS screens are in rectangular shape. Therefore, Bidder suggest to consider LVS size of 70 inch.	Bidder's understanding is not correct. 80 inch LVS are available in 16:9 aspect ratio. Bidder to comply specfication requirement.
750	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION - IIIC-02 DDCMIS ANNEXURE IIIC-02C	1 of 5	1.01.08	Graphical Interface Unit: GIU shall be installed in a suitable enclosure complying IP-55 protection class (IP-65 for extremely dust prone areas).	Bidder wish to clarify that GIU are installed on the Panels which are located indoor (either AC environment or Pressurized ventilated environment). Hence, GIU shall not be exposed directly to any dust. In view of above, IP-65 protection is not required if GIU is located indoor as specified above.	IP 65 is required for extremey dust prone area only. Bidder to comply specfication requirement.

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751	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	Annexure C to IIC Contract quantity	13 of 24	2.03.00	Common Plant Areas - Coal Handling Plant/Lime Stone Handling Plant/Gypsum Handling Plant: Raw Coal Bunkers (each Unit)	Since Coal bunkers are located in the Unit Zone, Bidder proposes to interface Each unit Bunker Area CCTV cameras in respective Unit Generating zone. The details of these cameras shall be available in CHP Zone workstation also. Request Owner to confirm the same.	Bidder to comply the specification requirement.
752	TECHNICAL SPECIFICATIONS SECTION VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION - IIIC-02 DDCMIS ANNEXURE IIIC-02D	3 of 4	7.00.00	**Automatic Unit Start-up & Shutdown with Single command** It shall be possible to perform automatic unit start-up & shutdown by issuing single command from the LVS/OWS…….	Implementation of Automatic Unit start-up and shutdown with single pushbutton is not feasible and also not proven. Therefore, Bidder would like to clarify , Automatic Unit start-up and shutdown shall be implemented with minimum possible manual interventions. Request Owner to accept the same.	Bidder to comply the specification requirement.
753	TECHNICAL SPECIFICATIONS SECTION VI, PART-B BID DOC. NO.: CS-4540-001A-2	SUB-SECTION - IIIC-02 DDCMIS ANNEXURE IIIC-02F	4 of 5	1.11.04	The total no. of IMC modules in one Profibus DP segment and their response time shall be governed by Process requirement……..... However the total no. of IMC modules per segment shall in no case exceed 24.	As per specification, the IMC modules Profibus DP interface is envisaged for only monitoring purpose. Therefore, Bidder proposes the maximum number of IMC modules per segment shall be limited to meeting the response time/update time requirement of specification.	Bidder's understanding is not correct. Refer clause no 1.06.02, Subsection IIC, Part A for its applicability. Bidder to comply the specification requirement.
754	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIIC-03 MAIN EQPT INST SYSTEM	1 of 2	1.00.00.(ii)	It shall be possible to do vibration analysis simultaneously at site as well as corporate centre.	Bidder would like to clarify only remote view of Vibration analysis results is possible. However, conducting remote Vibration analysis using raw data is not possible with major Vibration analysis system OEMs. Therefore, Bidder request to recheck the requirement of remote vibration analysis.	Bidder to comply specification requirement.
755	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIIC-08 CONTROL VALVES, ACTUATORS & ACCESSORIES	1 of 5	1.02.02	Further, the valve stem travel range from minimum flow condition to maximum flow condition shall not be less than 50% of the total valve stem travel.	Bidder would like to clarify, for certain applications like BFP recirculation control valves; it is not feasible to meet the requirement mentioned in specification under referred clause. Therefore, Bidder would like to confirm that this requirement shall be met to the extent possible subject to controllability confirmation by valve OEM.	Bider to comply specification requirement.
756	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIIC-08 CONTROL VALVES, ACTUATORS & ACCESSORIES	2 of 5	2.08.00	Extension bonnets shall be provided when the maximum temperature of flowing fluid is greater than 280 deg. C.	Bidder would like to clarify, final requirement of extension bonnet/Finned type Bonnet shall be as per Valve OEM bonnet maximum design temperature.	Bidder to comply specification requirement.

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757	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIIC-08 CONTROL VALVES, ACTUATORS & ACCESSORIES	3 of 5	3.00.00.(4)	Service: DM Water, Body Material: SS 316	Bidder understand the DM water referred in specification clause shall be application for pure DM water (i.e. Non passivated DM water) Request Owner to confirm the same.	Bidder`s understanding is correct.
758	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIIC-09 PROGRAMMABLE LOGIC CONTROLLER SYSTEM	3 of 6	14.03.00	24 V DC power supply system for PLC shall comprise of 2 x 100% power supply unit (power pack) along with 1 x 100% sealed maintenance free lead acid batteries for 30 minutes back up and DC distribution board,……..	Bidder request to clarify whether incoming feeder to PLC cabinet shall be 24VDC or 230VAC UPS. Bidder understand, if incoming feeder will be 24VDC then2 x 100% power pack units will not be required. Request Owner to confirm the same.	Bidder's understanding is not correct. Bidder to comply specification requirement.
759	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIIC-09 PROGRAMMABLE LOGIC CONTROLLER SYSTEM	3 of 6	16.00.00	Less than 100 msec. from input signal to output signal including logic processing. Display response of maximum 1 sec for control related displays. 2 to 3 secs for other displays	Bidder understand 100 ms is applicable for fast open loop only e.g. electrical breakers. Request Owner to confirm the same.	Bidder's understanding is correct.
760	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIIC-11 CONTROL DESK & PANELS	3 of 5	3.01.00	An arc shaped Large Video Screen (LVS) panel shall be supplied for mounting large video screens in number of tiers in various Control rooms as specified at Part-A of specification	Bidder could not locate number of tiers for LVS installation in Part-A. Bidder shall consider 2 tier installation as per "SUB-SECTION-IIIC-20 CCR Design Guidelines". Request Owner to confirm the same.	Bidder understanding is correct. Please refer Clause no. 1.01.07, Subsection IIIC-02 DDCMIS, Annexure IIIC-02C, Section VI, Part B of technical specification.
761	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.:CS-4540-001A-2	TECHNICAL SPECIFICATIONS SECTION VI, PART-B BID DOC. NO.:CS-4540-001A-2	1 of 6	2.01.00	Unit-wise SWAS panels viz. Primary Sample conditioning rack (at Boiler Floor and Deaerator Floor),……	Bidder request to clarify which samples to be considered for primary sample conditioning rack at Deaerator floor. Alternatively Bidder proposes to take these samples directly to Wet panels in SWAS room. Primary coolers for these samples shall be part of SWAS Wet panel. Please confirm.	Deaerator water outlet samples to be considered for primary sample conditioning rack at Deaerator floor. Also refer clause G, Contract Quantities for SWAS, Annexure C to IIC, Part-A, Section-VI of Technical Specifications. Bidder alternate proposal is not acceptable. Bidder to comply specification requirement.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
762	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIIC-20 CCR Design Guidelines SUB-SECTION-IIIC-01 BASIC DESIGN CRITERIA	1 of 3 6 of 6	2.00.00.b 9.03.00 (2)	Programmer's room and PC rooms – Required quantities of PCs and workstations and network devices with associated furniture Programmer Room :Programmer Room is envisaged to be located near the CER. This shall house the servers/ other workstations & Engineer station for DDCMIS (SG,TG and BOP C&I systems), various PCs and PADO hardware.	Bidder understands that the relevant workstations and engineering workstation shall be located in Programmer room. Separate PC room is not required. Request Owner to confirm the same.	Bidder's understanding is correct.
763	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIIC-20 CCR Design Guidelines	1 of 3	2.00.00.b	Documents room, spares room, Locker room, pantry, toilets, small offices alongwith lobby, visitor room, conference room etc.	Bidder request to finalize rooms to be considered at Main control room. Bidder understands that the Offices with Lobby will be provided in Service building, hence the same is not required in Main control room. Request Owner to confirm the same.	Please refer Clause no 1.02.00 ,sub section - G-03, Section VI , Part B for rooms to be considered at main control room / CCR at operating floor.
764	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2 TECHNICAL SPECIFICATIONS SECTION – VI, PART-E BID DOC. NO.CS-4540-001A-2	SUB-SECTION-IIIC-04 MEASURING INSTRUMENTS (PRIMARY & SECONDARY) SUB-SECTION-IIIC-06 PROCESS CONNECTION AND PIPING 0000-999-POI-A-064	2 of 34 1 of 2 3 of 3	2.01.00	SPECIFICATION FOR ELECTRONIC TRANSMITTER FOR PRESSURE, DIFF PRESS AND DP BASED FLOW / LEVEL MEASUREMENTS: Transmitter shall have…….and rack with canopy In case grouping is not possible and these are to be installed individually, canopy with suitable mounting arrangement shall be provided. LIR with 4/6/8 maximum number transmitters without purging.	Bidder would like to clarify,incase transmitter density is not available in a particular area and instrument grouping is 2 or less than 2 then suitable mounting (stanchion) shall be considered with canopy as mentioned in "SUB-SECTION-IIIC-06, clause 1.01.00". Request Owner to confirm the same.	Bidder's understanding is not correct. BIdder to comply the specification requirement.
765	TECHNICAL SPECIFICATIONS SECTION – VI, PART-E BID DOC. NO.CS-4540-001A-2	0000-999-POI-A-065	4 of 14	-	Interface from LIE/ LIR integral JB to Marshalling/ Termination cabinet is indicated in drawing.	Bidder would like to clarify , intermediate junction box shall be used after LIE/LIR integral JB for interfacing with Marshalling/Termination cabinet. Request Owner to confirm the same. Cable between LIE/LIR integral JB to intermediate JB shall be min 2 Pair.	Bidder proposal is not acceptable. Bidder to comply specification requirement.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
766	TECHNICAL SPECIFICATIONS SECTION – VI, PART-E BID DOC. NO.CS-4540-001A-2	0000-999-POI-A-022	-	Note-5	Gauges shall not be mounted on pipe. It will be mounted on a channel or Frame or Rack	Bidder would like to clarify, gauges which are installed at accessible location shall be directly mounted on pipe. Request Owner to accept the same.	Bidder proposal is not acceptable. Bidder to comply specification requirement.
767	TECHNICAL SPECIFICATIONS SECTION – VI, PART-E BID DOC. NO.CS-4540-001A-2	0000-999-POI-A-035	13 of 14	-	4 inch ANSI matching flange attached with flush diaphragm of Level transmitter	Bidder proposes the size of flange shall be 2/3/4 inch depending on measurement range of Level transmitter. Also Bidder would like to clarify this type of Level transmitter can be considered for Atmospheric tank level measurement. Request Owner to confirm the same.	Bidder proposal is not acceptable. Bidder to comply specification requirement.

Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
768	Section-VI/Part-B	D-1-5	106 OF 120 98 OF 120 99 OF 120	5.23.19 5.23.04/5.23.05	Roof slabs for CHP, LHP and GHP buildings shall be minimum 150 mm thick(in case of metal decking thickness shall be measured from crest top) and shall have minimum 10 dia HYSD reinforcement bars placed at 200 mm center both ways at top and bottom. The roof of crusher house/transfer house shall be provided with pre-fabricated insulated metal sandwich panels. Pre-Fabricated Insulated Metal Sandwich Panel for Roofing shall be laid to specified slope.	The said clauses are contradictory. Bidder shall consider pre-fabricated insulated metal sandwich panels laid on the roof for all CHP steel buildings including Crusher House & Junction Tower. Kindly confirm the same.	Clause 5.23.19 is generic and shall be followed unless noted otherwise for specific structure/buildings/facilities as mentioned in Cl 5.23.04/5.23.05 etc.
769	Section-VI/Part-B	D-1-6	4 OF 24	6.02.02 (G)	Underground Structures such as Channels, Sumps, Underground Pump House, Tanks, Trenches, Reservoirs, C.W. ducts etc. In addition to earth pressure and ground water pressure, the surcharge load of 2T/sq. m. shall also be considered for design of all underground structures.	Bidder understands that foundations of the buildings (isolated/strip/raft) are not considered as underground structures. Hence a surcharge load of 2T/sq. m. shall not be applicable for such foundations. Kindly confirm the same.	Bidder's understanding is not correct. Foundations are underground structures.
770	Section-VI/Part-B	D-1-6	8 OF 24 2 OF 6	D-1-6, 6.03.03 D-1-12(E)	Design of steel structures shall be done by the working stress method. Design shall be as per provisions of IS 800:1984 and other relevant IS standards. Design/Detailing for Ductility for Structures :- The site specific design acceleration spectra is a reduced spectra and has an in-built allowance for ductility. Structures shall be engineered and detailed in accordance with relevant Indian/International standards to achieve ductility.	As per D-1-12(E) we understand that since the site specific design acceleration spectra has an in-built allowance for ductility, the design of steel structure as per IS 1984 by working stress method will impart the said ductility to the relevant steel structure. Hence we do not need to engineer and detail those structure with any additional ductile check separately since the said code does not talk about ductile design of steel structure. Kindly confirm the same.	Bidder to follow technical specifications. Structures shall be engineered and detailed in accordance with relevant Indian/International standards to achieve ductility.
771	Section-VI/Part-B	D-1-5	41 OF 120	5.08.00	The inside drain dimension at any point should not be less than 0 .45m (height) x 0.75m(breadth).	Bidder proposes to adopt minimum 0.3 m (breadth) x 0.3 m (depth) drain and subsequent sizing as per hydraulic and discharge requirements. The same has been adopted in other NTPC projects. This is because it shall be very difficult to provide 750 mm wide drains due to	**Bidder to comply the Specification Requirements**
772	Section-VI/Part-B	D-1-9	2 OF 31	9.03.00	All buildings shall have minimum one toilet block each. The facilities provided in the toilet block shall depend on the number of users.	Please mention the list of buildings in CHP area which requires toilet facilities. Kindly also share no of users building wise in CHP area (where toilet facilities needs to be provided) and the volume of waste generated (m3/day).	Bidder to follow technical specification
773	Section-VI/Part-B	D-1-6	10 OF 24	6.03.08.08	Factor of safety against overturning and sliding The structure shall be checked for minimum factor of safety of 1.5 against overturning conditions (ratio of stabilizing moment to overturning moment) and 1.4 against sliding conditions as per IS: 456.	As per IS 456 clause 20.1, Factor of safety against overturning is 1.2 due to characteristic DL and 1.4 due to characteristic LL which is at variance from the provisions of the said clause. Kindly clarify.	**Bidder to comply the Specification Requirements**
774	Section-VI/Part-B	D-1-6	11 OF 24	6.03.08.11	Minimum diameter of Distribution Reinforcement / Stirrups/ ties/ Anchor Bars is 12 mm for foundation.	Bidder proposes to use minimum 8mm diameter bar for shear links in foundation. Please confirm.	**Bidder to comply the Specification Requirements**

Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
775	Section-VI/Part-B	D-1-6	9 OF24	6.03.08	Horizontal bracing system shall be provided at floor levels around the openings for plan area greater than 2 sqm.	Bidder understand that horizontal bracing system shall be provided at floor levels only around openings having plan area greater than 2 sqm. Beside these opening areas, the balance portion of RCC floor systems shall be considered as Rigid diaphragm. Structural floor beams supporting RCC slab in that portion shall be designed as laterally restrained. Kindly confirm the same.	Bidder shall adhere to Technical specifications. Please refer Cl 6.03.18 of SectionVI/Part-B Sub Section D-1-6
776	Section-VI/Part-B	D-1-5	104 OF 120	5.23.17.01	Drainage of the complete coal stock pile, area around stacker reclaimer rails etc. shall be discharged into the owner's coal slurry settling pond.	a)Kindly share drawings of Owner's coal slurry settling pond. Bidder needs the same to plan drainage of coal stock pile area and stacker reclaimer area (around rails). b)Also the location of the existing coal slurry settling	**Bidder to refer Amendment no. D1-10**
777	Section-VI/Part-B	D-1-6	9 OF 24	6.03.08	Minimum thickness for rolled/ built upsection shall be 6mm.	Bidder understand that minimum thickness of member means flange thickness irrespective of web thickness for a rolled / built up section. Please clarify.	Minimum thickness of web or flange which ever is lesser shall be 6mm.
778	Section-VI/Part-B	D-1-5 47 OF 120	107 OF 120 5.13.01	5.23.20.2	The grade slab shall consists of 230 mm thick rubble soling (63 mm downgraded hard stone..... overlaid by 75 mm thick P. C. C. M-7.5 and 100 mm thick RCC of grade M-20 with minimum 8 mm dia bars placed at 200 mm C / C in either direction respectively. There will be minimum 50 mm thick metallic hardener finish over the RCC slab. In all buildings including main plant building, the ground floor slab shall consist of minimum 150mm thick RCC M25 grade base slab over an under bed as specified below.	The said clauses are contradictory. For grade slab of all buildings bidder shall follow clause 5.23.20.2. Kindly confirm the same.	**Bidder to refer Amendment no. D1-11**
779	Section-VI/Part-B	D-1-5 46 OF 120	107 OF 120 5.13.00	5.23.20.2	The paving construction shall be as per specifications for the grade slab at ground level. However, 50 mm thick **metallic hardener finish is not required to be provided in paved area.** Paving areas **shall be provided with the metallic hardener floor** finish as specified elsewherein the specification.	The said clauses are contradictory. Bidder shall consider to proceed with clause 5.23.20.2 for all CHP structures. Please confirm.	**Bidder to refer Amendment no. D1-11**
780	Section-VI/Part-B	D-1-5	96 OF 120	5.23.02	Cross beams at floor level supporting conveyor stringer beams shall be made of single rolled steel beam or single channel section (ISMB or ISMC) or plate girder.	Bidder proposes that in addition to ISMB, ISMC or plate girder , Jindal sections(NPB or UB) can also be used for cross beams & end portals in conveyor galleries as well as floor beams and columns in steel buildings in coal handling plant area. Please confirm.	**Rolled steel sections confirming to relevent IS codes are already envisaged in the mentioned Clause.**
781	Section-VI/Part-E (TENDER DRAWINGS)		1 OF 8	Sl. No:1	Drawing no. 4540-999-POC-F-001 titled "General Layout Plan" - Structural shed over stock pile area.	It is difficult to support the structural shed by not providing any column foundation supports in the existing ETP facility area (as shown in the plot plan). Bidder proposes to dismantle existing ETP facilities (Refer the attached PDF)in order to support the shed. Request you to revisit the arrangement.	**Dismantling of existing ETP has been included in EPC vendor's scope. Bidder to refer Amendment no. D1-4**

Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
782	Section-VI/Part-A	IID	2 of 13	1.00.00	All existing foundations/below ground facilities interfering with new facilities are to be dismantled upto minimum 10m or technical/system requirement, whichever is greater, from the extreme outline of the new underground foundation/ structure. No drawing for substructure are available.	Bidder understands that Owner is referring to horizontal clearance of minimum 10 m between the extreme outline of new and existing foundation/below ground facilities. Please confirm.	Bidder's understanding is correct.
783	Section-VI/Part-E (TENDER DRAWINGS)		1 OF 8	Sl. No:1	TIN SHED shown in the additionally proposed coal stockpile area as per General Layout plan (4540-999-POC-F-001)	As per General layout plan (4540-999-POC-F-001),a tin shed has been shown in additional coal stock area while the same is missing in Annexure -P. Please clarify whether dismantling of the said structure shall be in bidder's scope or not ? if yes then please provide the plinth area and M.O.C of this facility with scope of dismantling.	The list in Annexure-P is only indicative. Please refer , Clause 1.00.00, para-3 S.NO.-4 of Part-A, Section-VI, Sub-Section IID of Technical Specifications.
784	Section-VI/Part-E (TENDER DRAWINGS)		1 OF 8	Sl. No:1	Stage-I Raw water reservoir & Stage-II Raw water reservoir as per General Layout plan (4540-999-POC-F-001)	Please confirm the depth of Stage-I Raw water reservoir & Stage-II Raw water reservoir. Since the reservoir plinth area is high and we require the depth of these existing facilities to arrive at the filling quantities.	Dismatling of existing reservoir of St-I & II are in bidders scope. Depth of existing reservoir is approx 4m (+/-1m) from surrounding area.
785	Section-VI/Part-B Section-VI/Part-B Section-VI/Part-B	D-1-5	104 OF 120 63 OF 101 649	5.23.17.01 3.06.00 Annexure-P	Drainage of the complete coal stock pile, area around stacker reclaimer rails etc. shall be discharged into the **owner's coal slurry settling pond**. For all coal Conveyor.... Crusher House, pent house, transfer house .... Wagon Tippler & transfer houses .... Control rooms and MCC buildings, Pump houses, etc water / coal slurry coming from down comers shall discharge into peripheral drains (Brick drains with steel gratings provided around the building) which will lead the water / coal slurry into contractor's RCC drain, which will lead the discharge finally into **coal slurry settling pond.** 4. Coal handling plant run-off water treatment system a) **Two (2) numbers of Coal Slurry Settling (CSSP) Ponds** (minimum size of 40m x 8m x 3m deep) of RCC Construction shall be provided. Annexure - P - Details of facilities to be dismantled. Sl no. 80. **Coal Slurry Settling pit**	From these 3 clauses bidder understands that there are total 4 nos. coal slurry settling pond out of which , i) Two nos. are to be constructed by bidder. ii) One CSSP is existing to which the drainage of the complete coal stockpile around the stacker-reclaimer/ stockpile shall be discharged. iii) One no. need to be dismantled by bidder. Please confirm whether bidder's understanding is correct or not.	**Existing CSSP is to be dismantled (ref Annex-P, Part-A, Section VI/IID)** **Bidder to refer Section-VI/Part-B SUB-SECTION-A-01, EQUIPMENT SIZING CRITERIA, Clause 3.06.00 C (4). Two (2) numbers of Coal Slurry Settling (CSSP) Ponds (minimum size of 40m x 8m x 3m deep) of RCC Construction shall be provided.** **Bidder to refer Amendment no. D1-10**

Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
786	Section-VI/Part-B	D-1-5	99 OF 120	5.23.06	Stacker Reclaimer Foundation: Stacker – Reclaimer (S/R) foundation shall be in RCC and shall ..... provided at a regular interval of approx. 3.0 m center. Conveyor short posts shall be supported on RCC beams at grade level..... RCC retaining wall on both sides of the S/R foundation shall be provided **as shown in the tender drawing**	Bidder could not find Stacker Reclaimer Foundation drawing along with the tender documents. Kindly share the relevant details of stacker reclaimer foundation along with retaining wall.	Refer tender drawing no. 4540-XXX-POC-A-0016. Detail engineering is in bidder's scope
787	Section-VI/Part-B	D-1-5 D-1-9	102 OF 120 1 OF 31	5.23.12 9.02.01	All stairs of over ground portion of transfer houses & crusher house shall be of steel (minimum 1200 mm wide) and maximum rise should not be more than180 mm and **minimum tread width 250 mm.** All stairs shall have a maximum riser height of 180mm and a **minimum tread width of 275 mm.**	The said clauses are contradictory. Bidder shall consider minimum tread width 250. Kindly confirm the same.	**Bidder to refer Amendment no. D1-17**
788	Section-VI/Part-B		6 of 101	4.1.7	Pavement of minimum **8 m width, all along the Ground conveyor** shall be provided. For single stream conveyor, **width of the pavement may be 4 m minimum.**	Bidder understands that - 1. For Double Stream conveyor **4m wide paving shall be provided on each side.** 2. For single stream conveyor **2m wide paving shall be provided on each side.** Kindly confirm bidder understanding.	Bidder's understanding is correct.
789	Section-VI/Part-B	D-1-9	6 OF 31 1 OF 31 98 OF 120	9.07.02 9.02.01 5.23.04	For initial height **up to 1 metre in buildings one brick thick masonry wall shall be provided** wherever metal cladding is specified. All buildings having **metal cladding shall be provided with 1M high brick wall** at ground floor level. **The lower portion of side cladding, at ground, for a minimum height of 0.9 m above the finished floor level** shall be one brick thick wall plastered on both side. .... Grade slab with brick cladding of 0.9 m height, plastered on both sides shall be provided for all transfer houses	The said clauses are contradictory. Bidder shall consider minimum height of 0.9 metre single brick thick masonry wall in buildings wherever metal cladding is specified. Kindly confirm the same.	Clause 5.23.04 is specific to CHP, LHP and GHP area
790	Section-VI/Part-B	D-1-5	97 OF 120 Page 1 of 15	5.23.02 1.01.02	At the location where the overhead conveyor gallery crosses road / rail line, **minimum clearance of 8.0m above the road crest / rail top** shall be provided. PLANT LAYOUT PHILOSOPHY :In case of rail track minimum 3m horizontal clearance between face of adjacent structure to center line of rail and **8.5m vertical clearance between bottom of structure to top of rail shall be maintained.**	The said clauses are contradictory. Bidder shall consider minimum clearance of 8.0m above the rail top. However 3m horizontal clearance between face of adjacent structure to centreline of rail will be maintained. Kindly confirm the same.	**Bidder to refer Ammendment no. D1-9**

Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
791	Section-VI/Part-B	D-1-9	13 OF 31 97 OF 120 98 OF 120	9.11.01 5.23.02 5.23.04	For Mill Bunker Building, transfer points, crusher house, conveyor gallery, steel louvered windows shall be provided. Overhead / Ground Conveyor Galleries and Trestles : Windows shall be provided with wire mesh as specified elsewhere in this specification. Transfer Houses : Adequate steel doors and windows for proper natural lighting and ventilation shall be provided.	Bidder proposes the following - For mill building, Transfer points and crusher house steel louvered windows shall be provided. For conveyor galleries windows shall be provided with wire mesh. Kindly confirm the same.	Bidder to comply the Specification Requirements
792	Section-VI/Part-B	D-1-6	1 OF 24	6.01.03 5.23.04 5.23.05	All the buildings shall have framed super structure. If the superstructure of building is a steel structure, the framed superstructure shall be moment resisting sway frame in the lateral direction and axially braced in the orthogonal direction.	Bidder understands that vertical bracings shall be provided on four sides along the periphery in Transfer Points & Crusher House. Being a braced frame in both directions, moment resisting sway frame is not required. Kindly confirm bidder understanding.	Bidder's understanding is correct.
793	Section-VI/Part-B	D-1-6	11 OF 24	6.03.08.20	2.0m wide walkway with concrete paving shall be provided connecting all structures, buildings and facilities. The top of walkway shall be minimum 200mm above FGL.	All buildings/structures/facilities within the coal handling plant are interconnected with road network. To access each buildings/structures/facilities approach road will be provided from main road. In this connection separate 2.0m wide concrete paving will not be required. Kindly confirm.	Bidder's understanding is correct.
794	Section-VI/Part-B	D-1-5	106 OF 120 14 OF 24	5.23.20.2 6.03.11 (f)	Mild steel flats/angles of suitable size shall be welded to the bottom portion of **chequered plates** at a designed spacing to stiffen chequered plates to restrict deflection within span/200. Permissible deflection for all purlins, cladding runners, roofing/cladding sheets and grating / **chequered plates** shall be span/250.	The said clauses are contradictory. Bidder shall consider permissible deflection limit span/200 for chequered plates. Kindly confirm the same.	Cl 5.23.20.2 is specific to CHP, LHP and GHP.
795	Section-VI/Part-B	D-1-6	9 OF 24 102 OF 120	6.03.08 5.23.12	For all underground structures like **wagon tippler**, tunnels and underground transfer points crack width shall be restricted to 0.2 mm. Stairs of MCC/control room, wagon tipplers/track hopper and underground TP's shall be of RCC construction.	Bidder understands that Wagon Tippler is excluded from EPC scope of work. Bidder request Owner to delete Wagon Tippler structure from tender specification.	**Refer ammendment no. D1-12**

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
796	SECTION –VI, PART-B	SUB SECTION B-06 LT SWITCHGEARS & LT BUSDUCTS	2.15.00	8 of 18	Dry type / 100 KVA(Welding TRF),	The referred clause is not legible. Owner may please provide the details which is not readable.	**Please refer amendment no B-9**
797	SECTION – VI, PART-B Section-VII-Book 2 of 3 Price Bid	SUB-SECTION-B-17 SWITCHYARD PRICE SCHEDULE SCHEDULE-8A AND SCHEDULE-8B Sr.no.2	1.06.02 a) Sr.no.2	5 of 60 -	**TYPE TEST REQUIREMENTS FOR GIS & 400KV AIS CIRCUIT BREAKER:** The Contractor shall carry out the type tests as listed in this specification on the equipment to be supplied under this contract. **The Bidder shall indicate the charges for each of these type tests separately in the relevant schedule of BPS** and the same shall be considered for the evaluation of bids. The type test charges shall be paid as per the charges quoted for each of these type tests separately in the relevant schedule of BPS (Bid Proposal Sheet) & no qty variation is allowed. only for the test(s) conducted successfully under the contract and upon certification by the Employer's engineer. **GAS INSULATED SUBSTATION** (A) The following type test on typical 400kV (As applicable) GIS bay module as per IEC 62271-203. The components forming parts of the GIS which are covered by other standards shall comply with and shall be type tested according to those standards.	The Gas Insulated Substation is already type tested based on IEC guidelines. Since the type testing of GIS consumes lot of time and the type testing charges are extremely high, bidder propose to accept the type test certificate and not to repeat type test for GIS. Accordingly, bidder request Owner to delete the requirement of quoting type testing charges at Sr.no.2 of Schedule-8A and 8B of Bid Price Schedules.	Bidder to comply the clause no: 1.06.02(a) and bidder to quote the type test charges as per schedule-8A and 8B of price schedules.
798	SECTION – VI, PART-E TENDER DRAWINGS	-	DWG. NO. 4540-001-POC-A-011, REV.A	1	Dimensions of Electrical Building and rooms are indicated	Bidder understand that Electrical building and room dimensions shown in referred drawing are indicative only and same shall be provided as per actual requirement.	Bidder`s understanding is correct
799	SECTION – VI, PART-A SECTION – VI, PART-B	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS SUB-SECTION-B-17 SWITCHYARD	1.16.05 (iii) 19.03.05	10 of 17 44 of 60	At locations of canal crossing, road crossing, submergence area, low corridor width etc., Cable is to be used. Minimum cable size is 19/33kV, 1c 150sqmm 4KA conductor/screen fault current. One Spare core shall be provided for each line wherever cable is used. Tower Spotting c) Road Crossing: ... ... d) Railways Crossings:... ... e) River Crossings:... ... f) Power Line Crossing: ... ... g) Telecommunication Line Crossing:... ...	The referred clause 1.16.05 (iii) specifies various crossing by cable whereas clause 19.03.05 specifies various crossing by overhead conductors. Bidder understands that bidder shall choose either Cable or overhead conductor as per site specific feasibility while crossing canal/road/rail/river/submergence area/power lines/telecommunication lines etc. Owner may please confirm bidder's understanding.	Bidder's understanding is not correct. Bidder to comply the clause 1.16.05(iii) & 1.16.05(iv) for canal crossing, road crossing, submergence area, low corridor width etc . For river crossings / power line crossings/telecommunication line crossings bidder to comply the clause no: 19.03.05.
800	SECTION – VI, PART-B	SUB-SECTION-G-03 LAYOUT PHILOSOPHY	1.02.00	5 of 15	Bidder as a safety requirement shall provide Fire wall on A-row of TG building in front of power transformers as per the statutory and safety requirements.	Bidder understand that, If the power transformers are separated from A-row more then required distance indicated in Section-VI, Part-B, Subsection-B10, clause 9.00.00, then fire wall is not required at A-row. Owner may please confirm bidder's understanding.	Bidder's understanding is incorrect. fire wall shall be provided on A-row as per clause no 1.02.00 of sub-section G-03 Layout philosophy.

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
801	SECTION – VI, PART-B,	SUB-SECTION-IIIC-19 ROBOTICS BASED CLEANING OF CABLE TRAYS	1.00.00 4.00.00 (ii) 4.00.00 (v) 4.00.00 (x) 4.00.00 (xi)	1 of 2 1 of 2 1 of 2 1 of 2 1 of 2	Robotics Based Cleaning of Cable Trays Intent of the Specification: The specification intends to identify and procure an automatic solution based on Autonomous robotics for inspection and cleaning of cable trays. The centralized master control system shall be designed and engineered by the contractor meeting the complete project requirements and will be finalized **during detailed engineering**. Type of robotic solution may vary considering the location and length of the cable trays and the same is to be assessed by the contractor **during detailed engineering.** For other arm configurations sufficient justification shall be provided by the vendor **during detailed engineering**. Suitable robot end-effectors shall be provided for various types of mechanical and compressed air based cleaning jobs to be decided **during detailed engineering**.	Detailed technical specification for "Robotics Based Cleaning of Cable Trays" is not available in tender. Further, we have checked with manufacturer for present installation of any such system in thermal power plant, however we could not find any such references. Hence, bidder proposed to exclude scope related to "Robotics Based Cleaning of Cable Trays".	Presently this item may be considered as deleted from the scope. However, owner may like to get this item supplied and commissioned at a later date. Accordingly, bidder to indicate the price of this item as an optional item in schedule 12 of the bid.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
802	TECHNICAL SPECIFICATION SECTION-VI, PART-B	A-07, STEAM TURBINE AND AUXILIARIES SYSTEM	15 OF 25	6.05.09	Operational Requirement (b) During low unit load conditions, turbine bypass operation, shutdown operation when extraction pressure of the normal motive steam source is insufficient to operate the drive turbine, steam from alternate source, from the same unit i.e. CRH, shall be admitted through a separate set of stop and control valves. Both sets of control valve to be controlled by **electro hydraulic governing system**. Bidder can offer single admission turbine with an external control valve (to be operated from the governing system).	Control Valve will be either electrohydraulic or pneumatic type as per OEM standard practice.Please confirm acceptance.	The requirement of EHC based control system is based on operating experience and requirement of quick response . Bidder proposal is not accepted and bidder to comply the specifications requirement.
803	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI MANDATORY SPARES	-	-	MANDATORY SPARES	Mandatory spares which are duplicated at different clauses in Mech/Elec/C&I sections, Bidder will consider the spare as per the section where higher qty is specified. Other sections shall be ignored for the same spares. Please confirm acceptance.	Bidder`s understanding is not correct. Bidder is requested to supply the mandatory spares as specified.
804	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER-02 STEAM TURBINE GENERATOR	1 to 31	-	MANDATORY SPARES - STEAM TURBINE GENERATOR	Please refer our comments on the Mandatory spares related to Steam turbine generator package as an Annexure-1. Request your acceptance for the same.	**Bidder to refer NTPC reply as per referred Annexure.**
805	SECTION-VI, PART-A	IV, FUNCTIONAL GUARANTEES	2 of 73	1.00.01, i), 1	For Cat-I Performance / Acceptance tests to be conducted along with the initial operation: After the conductance of Performance test, the test results shall be calculated **automatically by the server/software** provided by the contractor. The correction curves shall be fed/inbuilt in the PG test program/software. Provision of manual entry of offline data which cannot be captured online (such as Relative humidity, Atmospheric pressure etc.) and necessary for calculation of PG Test result shall also be provided	Bidder clarifies that there is no such software/server provided for online computation of test results. PG test shall be performed by using special test instruments required for PG test and shall be separate from the process instruments. After conductance of the test, dataloggers shall be used to retrieve the data and the same shall be used for performance evaluations. Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply with specification requirements

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
806	SECTION VI, PART-C	GENERAL TECHNICAL REQUIREMENTS	44 OF 114	26.02.00 b)	The 'Initial Operation' of the complete facility as an integral unit shall be conducted for 720 continuous hours. During the period of initial operation of 720 hours, the unit shall operate continuously at full rated load for a period not less than 72 hours.	Bidder requests NTPC to specify the load at which plant will run during 'Initial Operation' except 72 hours of full load operation.	The requirement of NTPC during the period of initial operation to operate continuously at full load for a period not less then 72 hours. The load except 72 hours of full load operation will depend on bidders readiness, Technical constraints and other conditions at that time.

ANNEXURE-1_ STG MANDATORY SPARES				
	MANDATORY SPARES			
	LIST OF MANDATORY SPARES GROUP-A: MANDATORY SPARES			
A	**GROUP-A: MANDATORY SPARES**			
S.No.	**ITEM DESCRIPTION**	**QUANTITY**	**Comments**	**NTPC's Clarification**
807	Complete HPT module -Includes inner bladed casing and bladed rotor including all internals in assembled condition and fitted in outer casing along with inlet pipe Breach nuts (if applicable).	1 No.	Inner & outer casing of HPT is not required and not recommended, hence Only HP Rotor complete assembly has been offered against this clause.	Bidder to comply specification requirement.
	Or			
	If design is such that stationery blades is provided in diaphragms, then full set of bladed diaphragms/ carriers and nozzle along with mounting arrangement (as applicable) for all stages of HP turbine, bladed HP Rotor, inner and outer casing with applicable sealing, diaphragm packing's, stationary gland seals, pipes/casing sealing rings along with casing fasteners for complete HP turbine assembly.	1 No		
808	Complete IPT module-Includes inner bladed casing and bladed rotor including all internals in assembled condition, along with full set of both ends of stationery gland seal segments (Finned).	1No	Inner & outer casing of IPT is not required and not recommended, hence Only IP Rotor complete assembly has been offered	Bidder to comply specification requirement.
	Or			
	If design is such that stationery blades is provided in diaphragms, then full set of bladed diaphragms/ carriers and nozzle along with mounting arrangement (as applicable) for all stages of IP turbine, bladed IP Rotor, inner and outer casing with applicable sealing, diaphragm packing's, stationary gland seals, pipes/casing sealing rings along with casing fasteners for complete IP turbine assembly.	1No		

ANNEXURE-1_ STG MANDATORY SPARES				
	MANDATORY SPARES			
	LIST OF MANDATORY SPARES GROUP-A: MANDATORY SPARES			
A	**GROUP-A: MANDATORY SPARES**			
S.No.	**ITEM DESCRIPTION**	**QUANTITY**	**Comments**	**NTPC's Clarification**
809	LP turbine rotor last two stage moving blades along with fastening material (Clamping pieces, Rivets, snubbers ,sleeves, springs, locking strips, locking pins etc. whichever are applicable) Note: a) If configuration has one LP Rotor, two sets for each stage of last two stage moving blades of both side flow is required (Total=8 sets) b) If configuration has two LP Rotors (Identical or non-identical) then one set for each stage of last two stage moving blades of both side flow is required (Total=8 sets)	Please see note in the description	As in both LP1 & LP2 rotor, Last two stages blades are idential, hence one set of one LP rotor each stage of last two stage moving blades of both side flow shall be supplied and offered.	It is clearly indicated in item description that If configuration has two LP Rotors (Identical or non-identical) then one set for each stage of last two stage moving blades of both side flow is required (Total=8 sets). Bidder to comply specification requirement.
810	Aux oil pump/startup oil complete assembly for Main Turbine along with complete coupling (Mounted on oil tank)	1 No.	Not applicable in our design,hence no spare offered against this clause	Bidder to offer one number motor driven oil pump complete assembly for Main Turbine along with complete coupling.Bidder to also refer General note 3 in page-30 of 31 of Part-A/Sub-Section-VI, Chapter-02/Section-VI regarding not applicable item.
811	Main oil pump complete assy (Turbine shaft Driven). (If turbine driven MOP is not there then no requirement).	1 No.	Turbine shaft Driven Pump is not applicable in our design,hence no spare offered against this clause	It is clearly mentioned in the specification that the referred line item is to be supplied if bidder offer design envisages turbine shaft driven main oil pump.
	Generator & Auxiliaries			
	Seal Oil System			
02.3.22	Vacuum pump assembly (If applicable)	1 set	Not applicable in our design,hence no spare offered against this clause.	Bidder to refer General note 3 in page-30 of 31 of Part-A/Sub-Section-VI, Chapter-02/Section-VI in this regard.
	Group-B: Mandatory Spares:			
	TG Items			
813	Electro-hydraulic convertor assembly of Main turbine Governing system	One no of each type	Servo valve is applicable & the same has been offered agaist this clause.	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be supplied by the bidder

ANNEXURE-1_ STG MANDATORY SPARES					
	MANDATORY SPARES				
	LIST OF MANDATORY SPARES GROUP-A: MANDATORY SPARES				
A	**GROUP-A: MANDATORY SPARES**				
S.No.	**ITEM DESCRIPTION**	**QUANTITY**		**Comments**	**NTPC's Clarification**
	Generator & Auxiliaries				
814	Exciter bearings / slip ring stabilizer (as applicable) including oil guard (complete with torous, intermediate pieces and all other fixing/assembly/ insulating material required to complete one TG unit except housing)	1 Set		Since static excitation system has been offered, refered spares are not applicable in our design, hence no spare offered agaisnt this clause	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be supplied by the bidder
815	**Motors**				
i)	AC AOP motor for main turbine	1 No		AOP is not applicable in our design, hence no spare offered against this clause.	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be supplied by the bidder
	Group C: Mandatory Spares				
816	**MAIN TURBINE**				
xx.)	Basket strainer/ Filter for Lube oil / Control Fluid system in tank - if applicable	1 set (Requirement for one Unit)		For MOT applicable, hence the same will be offered against this clause.	Bidder to refer General note 3 in page-30 of 31 of Part-A/Sub-Section-VI, Chapter-02/Section-VI in this regard.
817	**Blade Vibration monitoring system** (if applicable):			As per OEM design free standing blades have not been envisaged accordingly Blade Vibration monitoring system is not applicable to our design	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be offered and supplied by the bidder. However, in case these items are found applicable at a later date, these shall be supplied by Bidder at no extra cost to the owner.
	Description of items	Unit of items	Quantity		
i	Sensors	No.	20 % of full set or minimum 2, whichever is more	Not applicable in our design, hecne no spare offered against this clause.	
ii	Brackets, Fixtures	No.	20 % of full set or minimum 2, whichever is more	Not applicable in our design, hecne no spare offered against this clause.	
iii	Internal cabling	Length, M	20 % of full set or minimum 1 run of each type, corresponding to maximum length used in the system.	Not applicable in our design, hecne no spare offered against this clause.	

ANNEXURE-1_ STG MANDATORY SPARES					
	MANDATORY SPARES				
	LIST OF MANDATORY SPARES GROUP-A: MANDATORY SPARES				
A	**GROUP-A: MANDATORY SPARES**				
S.No.	**ITEM DESCRIPTION**		**QUANTITY**	**Comments**	**NTPC's Clarification**
iv	External cabling	Length, M	20 % of full set or minimum 1 run of each type, corresponding to maximum length used in the system.	Not applicable in our design, hecne no spare offered against this clause.	
v	Special conduits/ vacuum pass through or equivalent	Length, **M**	20 % of full set or minimum 1 run of each type, corresponding to maximum length used in the system.	Not applicable in our design, hecne no spare offered against this clause.	
vi	Input card	**No.**	10 % of full set or 1 number, whichever is more	Not applicable in our design, hecne no spare offered against this clause.	
vii	Output card	**No.**	10 % of full set or 1 number, whichever is more	Not applicable in our design, hecne no spare offered against this clause.	
	Full set means, Quantity corresponding to Integrated system for L-0 stage and L-1 stage (Turbine and Generator end)			Not applicable in our design, hecne no spare offered against this clause.	
818	**Generator** & **Auxiliaries**				
c)	Hydrogen seals rings TE, EE	1 Set each		Already covered in above clause 4 of IX. Generator & Auxiliaries,Hence no spare has been offered against this clause.	Bidder`s understanding is not correct. Bidder has to supply all the specified mandatory spares
e)	Brush- holder assembly for shaft earthing	1 set		Already covered in above clause 6 of IX. Generator & Auxiliaries,Hence no spare has been offered against this clause.	Bidder`s understanding is not correct. Bidder has to supply all the specified mandatory spares

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
819	Dwg no. 4540-001-POM-A-025 Sec-VI, Part-A,	 ' Sub Section-IIA-16	- 4 of 18	- 1.01.05, C),iii)	2W+1S eco pumps are shown common for two units. Two (2) numbers (1 working + 1 standby) economizer ash water pumps along with valves, pipes & fittings for both the units.	There is contradiction for number of Eco pumps in specification and flow diagrams as mentioned beside. Bidder understand total three (2W+1S) Eco pumps for both units shall be provided. Kindly confirm Bidder's understanding.	Confirmed. Bidder to refer Amendment of the clause. **Amendment No: A-MH-22**
820	Dwg no. 4540-001-POM-A-027 Sec-VI, Part-B, Sec-VI, Part-B,	- Sub Section-A-21 Sub Section-A-01	- 25 of 40 81 of 101	- 3.06.00 3.14.02.01	As per flow diagram, Two nos. (1W + 1S) IA compressors are shown for each unit for complete air requirement of ash handling system. Instrument air compressors and air drying plant (if applicable) 5. For each Unit of Ash handling system, Silo Utility & its auxiliaries (Continuous) : E 5. Instrument air requirement for 1 unit (Z) = [1.3x1.1x(A+B+C+D+E)] NM3/min	Due to the contradiction in the specification for the instrument air compressor of ash handling system. Bidder understand that Two nos. (1W + 1S) IA compressors for each unit dedicated to ash handing system shall be provided and same shall not be considered in plant instrument air compressor sizing. Kindly confirm Bidder's understanding.	Instrument air requirement for Ash Handling system shall be catered from Unit air receiver for Ash handling as specified in Sub-section-IIA-16, Part-A. Bidder to refer revised Single line diagram for Ash Handling system.
821	Dwg no. 4540-001-POM-A-027 Sec-VI, Part-A,	Dwg no. 4540-001-POM-A-027 Sub Section-IIA-16	- 6 of 18 9 of 18	- 1.01.06 1.01.07 f h)	intermediate FA silos are not shown in AHP flow diagram. Dry Fly Ash Conveying System Three (3) nos. (two working + one standby) fly ash storage structural steel intermediate silos of 250 MT effective storage capacity each , for switching to ash slurry (for subsequent disposal) and complete with an aeration system, dust separators, manual hoist over silo top for handling and all other accessories as required and as specified. The silos shall be complete with all fittings, accessories and supporting steel structures, access staircases, platforms, as required for safe and reliable operation and maintenance. Four (04) numbers (two working + two standby) Feeder ejector below each intermediate Silo with expansion joints, vertical pipe connections, cylinder operated valve, slurry discharge piping up to slurry sump, and necessary fixing clamps, and structural steel as required.	Owner to note that various options for dry fly ash conveying system are specified in the Cl. No. 1.01.06 of Sec-VI, Part-A, Sub Section-IIA-16, Where in any option Intermediate FA silo provision is not specified whereas same is shown in flow diagram of pressure conveying as well mentioned in the scope of supply. In this regard, Bidder understands that intermediate FA silos are only applicable for pressure conveying system. Kindly confirm.	Confirmed.
822	Sec-VI, Part-B, Sub Section-A-21	Sub Section-A-21	30 of 40	5.01.00 4)	Conditioning Water pumps: (i) 1 Working for both BA IM silo + 1 Common standby. (ii) 2 Working common for both main HCSD (if applicable) cum storage silo and Main Bottom ash silo + 1 Common standby	BA IM silo, Main BA silo and HCSD silo are not envisaged in this project. Hence, Bidder understands that these conditioner water pumps is not applicable. Kindly confirm Bidder's understanding.	Ash conditioner water pumps shall be applicable for FA Main storage Silos as specified elsewhere.

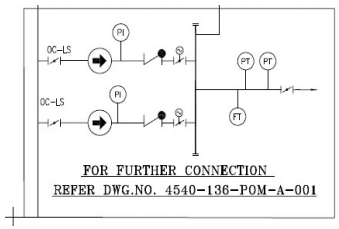
S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
823	Sec-VI, Part-B, Sub Section-A-21	Sub Section-A-21	22 of 40	3.02.00	II Air pipes, Type of pipe: ERW pipe as per IS:1239, heavy grade with galvanising as per IS: 4736…	Bidder understands that galvanizing pipe shall be applicable for instrument air piping only. However, galvanizing is not envisaged for conveying air, fluidizing air line etc. Kindly confirm Bidder's understanding.	Bidder to comply stipulation of Technical Specification.
824	Sec-VI, Part-B, Sub Section-A-01	Sub Section-A-01	89 of 101	4.01.22 (M) (II)	Static lift to be considered for Pontoon/Barge mounted Pumps- 30 meters Static lift to be considered for Ash Slurry Pump - 80 meters	Static Lift for pontoon/Barge mounted and ash slurry Pumps seems to be on higher Side. Owner is requested to further check and confirm.	Bidder to comply stipulation of Technical Specification.
825	SECTION – VI, PART-A	SUB-SECTION-IIA-16	10 of 18	1.01.07	Bidder may further optimize and convey dry Fly Ash up to Intermediate Silo or main Storage silo or classifier block directly from ESP Hopper by Pressure conveying system in single stage.	For the single stage conveying system, Owner is requested to provide the technical specification and flow diagram indicating various equipments like as piping, ash vessels, buffer hoppers, jet pumps, fluidizing blowers, compressors etc. However, the tentative scheme of single stage pressure conveying is enclosed herewith. Owner is requested to issue this scheme with amendment to keep all Bidders at par.	Bidder to refer Scheme for single stage pressure conveying system, issued as amendment.
826	SECTION – VI, PART-A	SUB-SECTION-IIA-16	10 of 18	1.01.07	Bidder may further optimize and convey dry Fly Ash up to Intermediate Silo or main Storage silo or classifier block directly from ESP Hopper by Pressure conveying system in single stage.	For single stage conveying system, Bidder proposes jet pumps/feeder ejector below each main fly ash silos for disposing fly ash slurry to combined ash slurry sump for further disposal to mine voids as an alternative to fly ash slurry preparation via intermediate silos. In such case, there shall not be any intermediate silo and associated system. Please confirm acceptance.	Jet pump/feeder below main FA Silos shall not be allowed. Bidder to comply stipulation of Technical specification.
827	Dwg No. 4540-001-POM-A-025, SECTION – VI, PART-A, SECTION – VI, PART-Part-B,	- Sub Section-IIA-16 Section-A-21	- 12 of 18 12 of 18 40 of 40	- 1.02.00, iv 1.02.02.02 9.02.00, 1)	Overgrond ash water tank Overflow transfer pipes to transfer clear water from surge tank to over ground water sump of ash water pump house, by gravity flow. For the purpose of water supply to the ash handling system, water pumps taking suction from over-ground RCC sump shall be installed in the ash water pump house. Water supply to ash water pump house shall be tapped from following sources BA overflow transfer hopper / tank level measurement, Seal water tank level measurement, Silo level measurement, over ground water tank.....	Ash water sump location based on layout feasibility (i.e. semi over ground or above ground) as the clarified ash water from settling tank to surge tank and from surge tank to ash water sump shall be transferred by gravity. Hence, Bidder understands that ash water sump shall be semi overground. Kindly confirm Bidder's understanding.	Bidder to comply stipulation of Technical Specification.
828	Dwg No. 4540-001-POM-A-030	-	--	--	As per Y-Y section ash slurry piping and ash water recovery pipe indicated	Owner to note that steel structure shall be designed for ash slurry pipes and ash water recovery pipes and no other load shall be considered for the design of steel structure. Request Owner to confirm.	Confirmed.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
829	Dwg No. 4540-999-POC-F-001	-	-	-	GLP shows "Pump house (Typ), BA slurry TPT".	Request Owner to clarify the purpose of "Pump house (Typ), BA slurry TPT" as shown in furnace area of GLP.	Bidder to refer Amendment No D1-34
830	Section - VI, Part-E	-		4540-999-POC-F-001	General Layout Plan: Location of FA silo	As per silo location shown in GLP, there is only 320 m of outhaul length is available which is sufficient to accommodate half rack. Bidder understands that the same is acceptable to NTPC. Kindly confirm.	Confirmed.
831	Section - VI, Part-E	-		4540-999-POC-F-001	General Layout Plan: Location of FA silo	As per plot plan, there is a space restriction to shift ash silos and to accommodate the associated facilities i.e truck loading, ash bagging system, silo utility building, hence, Bidder understands that silo location shown in GLP is fixed for design of Ash Handling System. Kindly confirm.	Silo location shown in GLP is indicative, may be finalized during detail engineering based on the final Railway layout and location of other associated facilities.
832	Sec-VI, Part-A, Dwg No. 4540-001-POM-A-025	Sub Section-IIA-16 '-	5 of 18	1.01.05 C (viii)	In case of intermittent type bottom ash handling system, two lengths of APH and duct hopper ash slurry transportation MS pipelines with basalt lining **(One no. independent pipe line for each intermediate ash slurry tank)** complete with basalt lined pipe bends, fixtures, elbows, gaskets, nuts, bolts, structural steel supports and other accessories as specified and as required, from the outlet of Coarse ash slurry transportation pumps to the main Ash Slurry Sump. Necessary fittings, valves etc. shall be provided as specified and as required. Individual pipes from coarse ash pump is indicated in the flow diagram.	There is mismatch in the specification and flow diagram regarding the pipe quantity from coarse slurry pumps to main ash slurry pump. In this regard, Bidder understands that there shall be One no. independent pipe line from each intermediate coarse ash slurry tank to main ash slurry sump. Kindly confirm Bidder's understanding.	Confirmed.
833	Sec-VI, Part-A, Sec-VI, Part-B, Dwg No. 4540-001-POM-A-025	Sub Section-IIA-16 Sub Section-A-21 '-	13 of 18	1.02.01.02 € 5.01.00	The water requirement for disposal of fly ash in slurry form shall be met by one (1) number working and one (1) number standby fly ash water pumps. FAHP Water pump: 2 working + 1 standby Total three (2W + 1S) Fly ash water pump indicated in flow diagram.	There is mismatch in the specification and flow diagram regarding the fly ash water pumps. In this regard Bidder understands that total three (2W+1S) pump shall be provided for both the units. Kindly confirm Bidder's understanding.	Confirmed. Bidder to refer Amendment of the clause. Amendment No: A-MH-23
834	Sec-VI, Part-A, Dwg No. 4540-001-POM-A-028	Sub Section-IIA-16 '-	6 of 18	1.01.06 (A) (a) (iv)	Six (6) nos. fly ash surge-cum-collection buffer hoppers (3 working + 3 Standby) complete with structural steel structures, platforms, stairs, aeration system, primary collector and secondary collector (if applicable) along with bag filter, target box etc for each unit. As per the Tender Flow diagram, there are 06 Nos. FA Conveying Pipeline/ Unit and terminated to independent FA Surge cum-Collection Buffer Hoppers	In absence of clarity between specification & flow diagram, Bidder understands that total six (6) numbers **(all working)** fly ash surge-cum-collection buffer hoppers shall be provided for each unit. Kindly confirm Bidder's understanding.	In this context, Bidder to refer amendment of clause & respective tender drws. Amendment No: A-MH-24
835	Sec-VI, Part-A,	Sub Section-IIA-16	15 of 18	1.04.13	The bagging plant shall be sized for 50 % of the fine ash (Classified fine ash). The bagging plant shall have provision for mechanized bagging of this fine ash. Fine ash shall be bagged in 50 kg cement bags. **The quantity of fine ash shall be 35 kg in cement bag of 50 kg.** Suitable numbers of such bagging streams shall be provided. No standby stream shall be required	Owner to note that the quantity of Fly Ash in these bags (i.e. 50 kg cement bags) will be approx. 30-35 Kg depending upon the bulk density). Kindly confirm.	Confirmed.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
836	Sec-VI, Part-A,	Sub Section-IIA-16	15 of 18	1.04.14	The bags shall be stored in suitable closed storage area having a provision to store bags filled in 8 hours. Mechanized transportation of fly ash bags from bagging machine up to the storage shed and from bagging machine to load into Truck directly. Adjustment to load bags in all types of Trucks shall be provided.	Owner is requested to provide the detail & Type of mechanized transportation system of fly ash bags from bagging machine up to the storage shed and from bagging machine to load into Truck.	Bidder to provide suitable conveying system along with associated arrangement so that ash filled bags shall be shifted from Bagging machines up to the Bagging shed and loads into the open Truck directly without any manual intervention.
837	Sec-VI, Part-B, Sec-VI, Part-B,	Sub Section-A-21 Sub Section-A-01		1.01.00 i) 4.01.04 Annexure-I	i) Temp. of bottom ash for calculating cooling water requirements : 1050 ^{0} C temperature of bottom ash in hopper =1050^{0}C (1922^{0}F)	Owner is requested to allow Bidder to consider bottom ash temperature as per boiler OEM recommendation for BA overflow cooling water pump capacity selection. However, MOC of BA hopper refractory shall be selected considering 1050 Deg C temperature as specified. Kindly confirm.	Confirmed.
838	Sec-VI, Part-B,	Sub Section-A-21	20 of 40 36 of 40	3.01.00 7.12.00 F)	DATA SHEET: HOISTS AND MONORAILS (AS APPLICABLE) To handle (i) vacuum pumps, buffer hopper aeration blowers and its drives located near the first row column of ESP of each unit. iii) Monorails and hoists for vacuum pumps (if applicable) and Buffer hopper aeration blowers and its drives shall be located near first row of ESP.	Owner to note that vacuum pumps, buffer hopper aeration blower are located in open, hence, Bidder understands that Hoist is not required for the same. Kindly confirm Bidder's understanding.	Hoist shall not be required but proper access/apprach for movable Crane (Hydra etc) up to the equipment shall be ensured.
839	Sec-VI, Part-B, Dwg No. 4540-001-POM-A-027 & 028	Sub Section-A-21 '-	27 of 40	3.08.00	Dry Ash unloader, Conditioned Ash unloader, Telescopic chute: Capacity range : 40-100 TPH during open Truck/Bulker loading through Condition ash unloader / Dry Ash unloader 40-300 TPH for Rail Wagon Loading through Dry Ash unloader Single Unloader is shown in flow diagram for dray ash unloading in to rail/Truck.	Owner to note that being a single unloader for rail/ truck, Capacity range shall be decided by OEM during detail engineering based on their proven practice. Kindly Confirm.	Capacity range (i.e. lower limit) may be decided during detail engineering but bidder to comply rated capacity (i.e. upper limit) as specified.
840	Sec-VI, Part-B,	Sub Section-A-01	86 of 101	4.01.02 (A)	Duct Hopper Ash 5%	Owner to note that this duct hopper shall be considered as per Boiler OEM design, if applicable. Kindly confirm.	Confirmed.
841	Sec-VI, Part-B,	Sub Section-A-01	87 of 101	4.01.02 (E)	Bottom ash Overflow water The overflow water from ..... shall be pumped to minimum one (1) number settling tanks and one (1) no. surge tank, by BA overflow water pumps. The diameter and thickness of mild steel settling tanks shall be minimum 15 meters and 10 mm respectively. .....recycled to ash water pump house where the ash water pumps are proposed to be located.	Owner to note that diameter of settling tank and surge tank shall be decided by AHP OEM in line with tender specification based on their proven design. Kindly confirm.	Confirmed.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
842	Sec-VI, Part-B,	Sub Section-A-01	89 of 101	4.01.02 (K) 3.	The fly ash storage silos shall be at a pitching suitable for filling of ash into BTAP and DCFC wagons.	Owner is requested to provide the sketch / GA drawing with dimensions of ash loading point, total length, height etc. of the wagon, which needs to be followed for the finalization of silo pitching.	Provisions shall be made so that simultaneous loading into BTAP or BCFC or BCCW type Wagon could take place. Necessary space provisions in the layout or equipment for this area are in the scope of the successful bidder. Bidder may collect Sketch/GA drw of Wagons easily avilable in Railway catalogue.
843	Sec-VI, Part-A, Dwg No. 4540-001-POM-A-029	Sub Section-IIA-16 '-	14 of 18 ---	1.04.02 ---	Suitable numbers of ash classifier as required shall be provided to meet the requirement as specified. Classifier 1 no./ Unit	Bidder understands that total two no. (both Working) classifier along with accessories for both the units shall be in Bidder's scope. Kindly confirm Bidder's understanding.	Confirmed.
844	Dwg No. 4540-001-POM-A-031,	-	-	-	MOV shown in ash water recirculation line near to ash water sump (plant area)	Being single disposal point near to ash water sump, MOV at ash water recirculation line at discharge point is not envisaged. Request Owner to revisit and accept manual operated butterfly valve at discharge point of ash water recirculation pipe.	Bidder may provide manual operated butterfly valve.
845	Dwg No. 4540-999-POC-F-001	-	-	-	Ash classification & Additional area required for ash utilization facilities	Owner to note that additional area for ash utilization facilities as shown in the GLP can be compromised for ash classification during detail engineering. Kindly confirm.	Confirmed.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
846	TECHNICAL SPECIFICATION SECTION – VI, PART-A	SUB SECTION IIA-11 CW SYSTEM	PAGE 1 OF 4	1.01.00	Minimum twenty (20) nos of Automatic air release valves (ARVs) of 200 mm NB (minimum) size along with its isolation valves for CW system. Necessary stub connection in CW duct for mounting ARVs	Bidder understands that number of air release valve shall be decided based on transient analysis only . Owner to confirm.	Bidder shall note that though the number of ARVs shall be decided based on recommendations of transient analysis, the number of ARVs to be installed in CW system shall not be less than 20 nos.
847	TECHNICAL SPECIFICATION SECTION – VI, PART-A TECHNICAL SPECIFICATION SECTION- VI, PART-B	SUB-SECTION – IIA-09 MUW SYSTEM SUB SECTION A-15 CW SYSTEM	PAGE 1 of 3 PAGE 27 of 31 PAGE 3 of 31	1.00.0 4.07.03 4.00.00	1) Forced water lubrication system consisting of two numbers (2 X 100%) of horizontal centrifugal type lubricating water pumps & its drives, pressure sand filter (2 X 100%), air blower (2 X 100%), backwash pumps (2 X 100%), **Overhead tank**, all associated piping and fittings, valves etc. along with all required accessories to complete the system. 2) Lubricating water pumps shall be provided to supply lubricating water for bearings. These lubricating water pumps shall get supply from the **overhead water storage tank.** 3) Contractor shall provide the necessary vibration monitoring system. instruments shall be provided as per control philosophy for Circulating water pumps & pump system, however, the instruments like Pressure gauge(s), Temperature gauges, level gauges, RTDs (Pump, motor bearings, motor windings) temperature, Pressure transmitters, Ultrasonic type level transmitters (Pump sump, forebay, Overhead tank, drainage pit (for CV pump), reverse rotation indicator, Electronic flow meter (CW pump, discharge & seal/lub water pumps) shall be provided for each pump/ system as a minimum.	Instead of overhead type tank, location of tank shall be decided by bidder (i.e overground or overhead) during detail engineering based on layout requirements. Owner to confirm.	Bidder's suggestions based on proven design may be considered during detailed engineering.
848	SECTION-VI, PART-B	G-04, Standard PG test proedure	5 of 224	1, VI	CW pumping power in kW for design CW flow and the pressure drop in CW side being measured in terminal points as per specification. (Pumping power shall be computed based on overall efficiency of ---- - --% of CW pump and drive.	CW pumping power is not applicable for this project. Accordingly bidder proposes to delete this clause from standard PG test procedure. Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply technical specification requirements.
849	TECHNICAL SPECIFICATION SECTION – VI, PART-A	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA & SUB-SECTION- A-9 (LOW PRESSURE PIPING	2) PAGE 55 of 101 3) PAGE 56 of 101 4) PAGE 1 OF 19	2) CW : 3.01.00 3) NDCT: 3.02.00 4) LP piping: 1.03.00	2) Design velocity not to exceed 2 m/sec 3) Internal Diameter of pipes: To suit the design velocity of maximum 2 m/sec 4) Inside diameters of piping shall be calculated for the flow requirements of various systems. The velocities for calculating the inside diameters shall be limited to the following a) **Water Application** **Water Velocity in m/sec** **Pipe Size** / **Below 50 mm** / **50-150 mm** / **200 mm & above** (a) Pump suction / ------ / 1.2-1.5 / 1.2-1.8 (b) Pump discharge and recirculation / 1.2-1.8 / 1.8-2.4 / 2.1-2.5 (c) Header / ------ / 1.5-2.4 / 2.1-2.4	CW piping categorized under LP piping. Discrepancy found in the specified tender clauses regarding velocity inside pipes. Owner to clarify which one to follow.	Bidder to follow clause no - 3.11.00 (b), sub section- A-01 , Part -B of technical specification for CW system and NDCT, piping shall be designed inline with equipment sizing criteria clause no- 3.01.00 & 3.02.00 repectively, sub section- A-01, Part-B.

850	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB-SECTION- A-9 (LOW PRESSURE PIPING)	PAGE 1 OF 19	1.03.00	WILLIAM & HAZEN formula shall be used for calculating the friction loss in piping systems with the following "C" value: (i) Carbon steel pipe : 100 (ii) Ductile Iron.: 140 (iii) Rubber lined steel pipe: 120 (iv) Stainless steel pipe: 100	In WILLIAM & HAZEN formula, C value shall be taken as 140 for SS pipe. Owner to please update.	Bidder's Proposal not aceptable. Bidder to comply the specification requirements.
851	4540-136-POM-A-006 Single line flow & instrumentation diagram of pre-treatment plant					Owner is requested to allow to remove these pumps if gravity flow can be possible between tank to tank transfer. Please confirm.	Bidder's proposal is not acceptable. Bidder to comply technical specification requirements.
852	SECTION-VI / PART-B	/SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA	68 of 101	3.09.00	All liquid effluents shall be collected and treated to meet the latest effluent norms prescribed by SPCB/CPCB. The treated effluents conforming to the prescribed standards only shall be recirculated and reused within the plant and the complete plant shall be designed by the contractor as a Zero Liquid Discharge (ZLD) Plant.	Bidder understands that all liquid effluents shall be collected and treated with Flash mixer/tube settler and lamella clarifier. We do not envisaged any Reverse osmosis (RO) treatment in the ZLD. Please confirm Bidder's understanding.	The bidder shall design the complete Plant as ZLD compliant meeting the technical specification requirement as a minumum. Bidder shall further consider and provide any other system as required for meeting ZLD compliance.
853	SECTION-VI, PART-B / vs Drg No. 4540-001-POM-A-027	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	81 OF 101 vs 01 OF 01	3.14.02.01	5. For each Unit of Ash handling system, Silo Utility & its auxiliaries (Continuous) vs Two (2) Nos. Instrument air compressor (IAC)	Due to the contradiction in the specification for the instrument air compressor of ash handling system. Bidder understand that Two nos. (1W + 1S) IA compressors for each unit dedicated to ash handing system shall be provided and same shall not be considered in plant instrument air compressor sizing. Kindly confirm Bidder's understanding.	Bidder to refer amendment revised Drw. No.issued as amendment No-A-MH-029
854	SECTION- VI, PART - B BID DOC. NO. CS-4540-001A-2 SECTION- VI, PART - B BID DOC. NO. CS-4540-001A-2 SECTION- VI, PART - B BID DOC. NO. CS-4540-001A-2 SECTION- VI, PART - B BID DOC. NO. CS-4540-001A-2 General Requirements	SUB SECTION- G-04 STANDARD PG TEST PROCEDURE SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA SUB SECTION-II-B-02 MOTORS SUBSECTION-B-11 STATION LIGHTING General Requirements	Page 60 of 224 Page 79 of 101 Page 2 of 4 Page 9 of 18 Page 1 of 6	b) 3.13.02 7.02.00 4.00.00, 14. & (x) 1.00.00, 3.	Hydrogen Generation Plant: One third (33%) of power consumption of one stream of hydrogen generation plant. DESIGN PHILOSOPHY – Ventilation System Hydrogen generation plant/MCC/ Switchgear rooms and Battery rooms& other areas where gaseous fumes/ vapours are generated Hydrogen generation: Group - IIC or (Group-I, Div-II as per plant area NEC) or (Class-1, Group-B, Div-II as per NEMA /IEC60034) In the hazardous areas like Hydrogen generation plant, fuel oil handling areas or any other gas/ liquid fuel storage/ handling areas in bidder's scope, lighting shall be flame proof. Hydrogen Plant Building: Explosion proof HPMV/ Fluorescent fittings suitable for class-I and Division –IIC All electrical devices like switches/ transmitters/ controller/ analyzer/ solenoid valves which are located in the hydrogen generation plant shall be made intrinsically safe by providing suitable type of transformer isolated....	Bidder understands that Hydrogen Generation Plant is not envisaged in this tender, hence, the referred clauses are not applicable. Kindly confirm Bidder's understanding.	Bidder's understanding is correct that Hydrogen Generation Plant is not applicable in subject tender.

855	Section VI, Part A,	Sub Section IV, Performance Guarantees & Liquidated damages	1 of 73	1.00.01	The guaranteed performance parameters indicated in furnished by the bidder in his offer, shall be without any tolerance values whatsoever and all margins required for instrument inaccuracies and other uncertainties shall be deemed to have been included in the guaranteed figures.	Tolerance of 0.3 deg C in the cold water temperature shall be allowed to take care of instrument inaccuracies with reference to other NTPC executed projects like Tanda, Darlipalli and Lara projects. Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply technical specification requirements.
856	Section VI, Part B,	Sub Section A-01, Equipment sizing criteria SUB SECTION A-15 CW SYSTEM	56 of 101 10 OF 31	3.02.00 3.05.00	Quantity of water to be cooled by cooling tower of one unit shall be CW pumps flow/unit + 10 % margin The water distribution system, basin and cold-water discharge channel shall be designed in such a way that it can handle 120% of rated water flow without any overflow in basin	Please note that hydraulic design of the cooling tower is already provided with 20% margin as per cl.no. 3.05.00 of Sub-section 15. Hence no additional margin of 10% will be considered in the thermal design of cooling tower & accordingly cooling tower capacity will be same as per rated capacity of CW pump. Please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply technical specification requirements.
857	Section VI, part B,	sub section D-1-5 Sub-Section – A-15 (Cooling Towers-Mechanical) SUB-SECTION-D-1-5 CIVIL WORKS	64 of 120 PAGE 11 OF 31	5.17.05.07 5.00.00 3.10.06 (d)	The tower shall be provided with two numbers external FRP Staircase,…. ……. Staircase is RCC. The design of staircase, pipe trestle foundation, and peripheral water drain shall be designed as per IS: 456 (2000).	Discrepency in both tender clauses for staircase. Bidder understands that RCC staircase to be considered as per clause 5.00.00 Constructional Features of Sub-Section – A-15 (Cooling Towers-Mechanical). Owner requested to confirm.	For Cl 5.17.05.07 Bidder to refer amendment no. D1-6 Stair case shall be RCC inline with clause no- 5.00.00 , Sub section-A-15, Part-B.
858	Section VI, part B,	sub section D-1-5	64 of 120	5.17.05.08	A FRP platform of 1500 mm clear width shall be provided around the tower periphery which will be a means of access to next walkways and all end valves…	Since generally peripheral platform is provided from tower shell it will be easier to provide it with RCC than the FRP. Please confirm.	**Bidder to refer amendment no. D1-7**
859	Section VI, Part A,	Sub Section IV, Performance Guarantees & Liquidated damages	1 of 73	1.00.01	If the cold water temperature is less than or equal to predicted cold water temperature as detailed above the tower is deemed to have met the guarantee.	Since the test will be conducted as per CTI ATC-105, the acceptance criteria shall be the tower capability calculated as given in CTI. If the tower capability is found to be equal to or more than 100% then the tower is acceptable. Please Confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply technical specification requirements.
860	General		-	-	Colour of Fill	The colour of fills shall be black as per bidders consideration. Kindly confirm.	Bidder query is not clear. Bidder to comply technical specification requirement.
861	Section VI, Part B,	Sub sec- A-15, CW system	Page 13 of 31	11.00.00	The maximum drift loss shall be limited to 0.001% of total water in circulation. Contractor shall demonstrate during performance test as per relevant test codes that drift loss is limited to 0.001%.	Kindly confirm whether certification of drift eliminator for drift loss by CTI approved laboratory/ fill supplier is acceptable. Owner requested to confirm.	Bidder's proposal is not acceptable. Bidder to comply technical specification requirements.
862	SECTION – VI, PART-A	SUB-SECTION-I	5 of 8	4.02.00	Regarding, coal & fuel oil, the Contractor shall quote the total maximum quantity of the coal and fuel oil as required upto the successful completion of "Initial Operation" (as defined in General Technical Requirements, Part-C, Section-VI of Technical Specification) for both the units which shall be issued to it free of charge by the employer for such operation during execution. These quantities for both coal and fuel oil shall be compared with the respective quantities as quoted by various bidders. The quantities over & above the base value (minimum among the quoted figures for coal & fuel oil) shall be used as a loading factor and corresponding computed price (total for coal & fuel oil) shall be added to the quoted bid price for deriving the total bid price. The cost of coal & fuel oil shall be used as Rs. 2108/Ton (Rupees Two Thousand One Hundred and Eight only per ton of coal) Rs. 40,000/KL (Rupees Forty Thousand per KL of fuel oil) for such purpose.	1) To bring fair competition among the Bidders, NTPC has fixed all the guarantees and no evaluation benefit is provided **except only for coal and LDO consumption**. 2)Coal consumption during commissioning is highly dependent on the factors like quality of coal, shutdown or backing down of unit due to reasons not attributable to EPC Contractor. The quantification of exact requirement of coal is highly uncertain. 3) Owner gets compensated for the "infirm power" supplied to grid after unit is synchronised. 4) As this requirement has asked by Client first-time, Bidder doesn't have any record of coal quantity used in past projects during commissioning stage. **In view of the above and to bring parity among the Bidders,NPTC is requested to remove the evaluation and provide coal for pre- commissioning/commissioning activities free of cost till completion of Initial Operation.**	Requirements as per Amendment No. G-03 to be complied with.

863	SECTION – VI, PART-A	SUB-SECTION-I	5 of 8	4.02.00	Regarding, coal & fuel oil, the Contractor shall quote the total maximum quantity of the coal and fuel oil as required upto the successful completion of "Initial Operation" (as defined in General Technical Requirements, Part-C, Section-VI of Technical Specification) for both the units which shall be issued to it free of charge by the employer for such operation during execution. These quantities for both coal and fuel oil shall be compared with the respective quantities as quoted by various bidders. The quantities over & above the base value (minimum among the quoted figures for coal & fuel oil) shall be used as a loading factor and corresponding computed price (total for coal & fuel oil) shall be added to the quoted bid price for deriving the total bid price. The cost of coal & fuel oil shall be used as Rs. 2108/Ton (Rupees Two Thousand One Hundred and Eight only per ton of coal) Rs. 40,000/KL (Rupees Forty Thousand per KL of fuel oil) for such purpose.	1) To bring fair competition among the Bidders, NTPC has fixed all the guarantees and no evaluation benefit is provided **except only for coal and LDO consumption.** 2) Fuel oil (LDO) consumption during commissioning is highly dependent on the factors like quality of coal, shutdown or backing down of unit due to reasons not attributable to EPC Contractor. Thus, the quantification of exact requirement of LDO is highly uncertain. 3) Owner gets compensated for the "infirm power" supplied to grid after unit is synchronised. **In view of the above and to bring parity among the Bidders,NPTC is requested to remove the evaluation and provide LDO for pre- commissioning/commissioning activities free of cost till completion of Initial Operation.**	Requirements as per Amendment No. G-03 to be complied with.
864	SECTION – VI, PART-A	SUB-SECTION-IB PROJECT INFORMATION	7 OF 15	ANNEXURE-IV-1	LIGHT DIESEL OIL CHARACTERISTICS	NTPC is requested to specify LDO density.	Bidder to note that relative density value is approx. 880 Kg / m3 at 15 °C.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
865	SECTION - VI /PART – B	SUB-SECTION-E-00 INTRODUCTION TO QUALITY ASSURANCE SPECIFICATION	PAGE 1 OF 1	-	Various standards referred in this document shall be the latest revisions.	Bidder requests to follow clause 5.02.00 CODES & STANDARDS of GENERAL TECHNICAL REQUIREMENTS which mentions that the latest editions (as applicable as on the date of bid opening), of the codes and standards shall be applicable.	Bidder Understanding is correct.
866	SECTION - VI /PART – B	SUB-SECTION-E-2 ELECTROSTATIC PRECIPITATOR	Page 1 of 1	1.03.00	(ii) For plates of 25mm < thickness < 32mm - 10% RT and 100% MPI. (iv) All fillet welds of structural members shall be inspected 100% by MPI.	(ii) Bidder proposes to carry out RT/UT as same permitted in NDT of Boiler Structure clause no. 1.02.11, c, ii, page 11 of 13 under Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries. Bidder also proposes to perform MPI/PT in lieu of MPI. (iv) proposes to perform MPI/PT in lieu of MPI	II) For RT,Boiler structure specification may be followed. II&IV)For MPI , Bidder to meet the specification requirements. Refer Amendment No : E-QA-01
867	SECTION - VI /PART – B	SUB-SECTION-E-4 FLUE GAS DESULPHURISATION SYSTEM	Page 3 of 5	1.08.03	ii) For plates of 25mm<=thickness<32mm-10% RT and 100% MPI.	(ii) Bidder proposes to carry out RT/UT as same permitted in NDT of Boiler Structure clause no. 1.02.11, c, ii, page 11 of 13 under Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries. Bidder also proposes to perform MPI/PT in lieu of MPI in ii and iv	II) For RT,Boiler structure specification may be followed. II&IV)For MPI , Bidder to meet the specification requirements. Refer Amendment No : E-QA-02
868	SECTION - VI /PART – B	SUB-SECTION –E-05 LP PIPING PACKAGE (MECHANICAL)	2 of 3	Note 1	100% Hydraulic test shall be carried out. Weld joints not subjected to hydraulic test due to some unavoidable reasons, shall be subjected to 100% RT/PAUT.	Bidder requests to provide option for performing 100% RT/UT/PAUT in lieu of Hydraulic Test	Bidder to meet the specification requirements
869	SECTION - VI /PART – B	SUB-SECTION –E-05 LP PIPING PACKAGE (MECHANICAL)	2 of 3	3	RT / UT by (TOFD/PAUT) Technique	Bidder proposes to include **manual UT** in addition to RT / UT by (TOFD/PAUT) Technique as an option for NDT	Bidder to meet the specification requirements

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
870	SECTION - VI /PART – B	SUB-SECTION-E-06 POWER CYCLE PIPING	Page 1 of 5	1.01.00	(f) All butt welds in alloy steel piping of P-91, X -20, X-22 & material P15E group & above shall be checked for RT/ UT/**PAUT+TOFD** & MPI after SR.	(f) All butt welds in alloy steel piping of P-91, X -20, X-22 & material P15E group & above shall be checked for RT/ UT/PAUT/TOFD. Both PAUT as well as ToFD have higher probability of detection as compared to RT & conventional UT. Bidder requests to accept the same.	Bidder to meet the specification requirements
871	SECTION - VI /PART – B	SUB-SECTION-E-06 POWER CYCLE PIPING	3	Page 2 of 5	(4) ... Further, 10% of butt welds of underground piping shall be subjected to RT.	Bidder requests for alternative Volumetric NDT Examination including UT/PAUT/TOFD	Bidder to meet the specification requirements
872	SECTION - VI /PART – B	SUB-SECTION-E-06 POWER CYCLE PIPING	Page 2 of 5	2	(2) Temperature > 175 Deg, C upto 400 Deg. C or pressure exceeding 17 bar and upto 71 bar. ... (iii) 100% MPE.	Bidder proposes to perform MPE on grade 91, 92 and **MPE/PT** for other grades of material where MPE mentioned in Sub section E 06	MPI can not be substituted by LPI. However in the inaccessible area where MPI is not possible LPI can be accepted.
873	SECTION - VI /PART – B	SUB-SECTION-E-06 POWER CYCLE PIPING	Page 2 of 5	1.01.00	(c) The edge preparation for shop and site welds in stainless steel /alloy steel shall be subjected to a dye penetrate check	Bidder has not envisaged PT for the edge preparation for shop and site weld in SS and alloy steel. Bidder uses 100% UT tested pipes and at shop WEP is carried out at machining followed by visual inspection. No gas cutting is used for preparation of WEP.	Bidder to meet the specification requirements
874	SECTION - VI /PART – B	SUB-SECTION-E-06 POWER CYCLE PIPING	3 of 5	1.05.00	(b) Hardened/stellitted valve disc and seat are to be subjected to LPI and hardness check.	Hardness testing on seat/disc may be performed on a sample test coupon (PTC) instead of actual seat. The Sample test coupon will undergo same process as that of actual seat material and the hardness of this test coupon will be measured. As the hardness test on actual seat creates indentation on seat, which may become a leak path in the feature during the valve operation. (inline with Sub section E-08 1.07.01).	If it is not possible to carry out the test on job the same may be tied up during detailed engg.
875	SECTION - VI /PART – B	SUB-SECTION-E-08 STEAM TURBINE & INTEGRAL AUXILIARIES	1.10.02	Page 22 of 23	(c) All welds between condenser neck and LP turbine shall be subjected to 100% radiographic and magnetic particle examination.	Bidder proposes to perform MPI/PT in lieu of Magnetic Particle Testing as there is very limited access available for performing NDT	Since, the weld joints between condenser & LP Turbine are critical & linked to vacuum system,hence the present practise to continue.Bidder to meet the specification requirements.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
876	SECTION - VI /PART – B	SUB-SECTION-E-10 CONDENSATE EXTRACTION PUMP	1.00.00 CONDENSATE EXTRACTION PUMPS	PAGE 2 OF 2	TABLE CONT'D ON NEXT PAGE	Request you to remove the clause as there is no other details available in next page	Table refers to the General Notes mentioned in the subsequent section.
877	SECTION - VI /PART – B	SUB-SECTION-E-12 BOILER FEED PUMP	2 of 4	1	(a) Performance Tests on each Boiler Feed Pump to determine the characteristic curve (Head, Capacity, Efficiency & Power) at Design Speed and to ensure compliance with design requirements specified in the specification. Measurement shall be carried out at 10%, 25%, 50%, 65%,80%, 100% & 125% of Design Flow with loop water at design temperature. Performance Test at other specified Conditions shall be carried out on all Boiler Feed Pumps at their respective Speeds at design temperature.	Many manufacturers does not offers / recommend to conduct performance test below recommended flow, therefore performance tests at 10 % , 25 % flow will not be done. It's more like pump running in dry conditions which may damage the pump internals Performance test is performed at reduced speed and temperature meeting HIS guidelines and Note 5 of Sub Section E-12	Pump performance at lower flow(10% & 25%) done to verify Pump internal conditions, in case of no flow & less flow conditions and for very short duration only.Hence, the present practise will continue.Bidder to meet the specification requirements.
878	SECTION - VI /PART – B	SUB SECTION-E-13 MAKE UP WATER (MECHANICAL)	Page 2 of 4 Page 4 of 4	B.	ix. 5% RT/ 5% UT by TOFD/PAUT techniques on those butt weld joints which can be 100% hydro tested. x. 100% RT / 100% UT by TOFD/PAUT technique of the butt weld joints of pipeline shall be carried out which cannot be Hydro tested. viii. 5% RT/ 5% UT by TOFD/PAUT techniques on those butt weld joints which can be 100% hydro tested. ix. 100% RT / 100% UT by TOFD/PAUT technique of the butt weld joints of pipeline shall be carried out which cannot be Hydro tested.	Bidder requests to perform 100% RT/UT / PAUT/TOFD in lieu of Hydrotest	Bidder to meet the specification requirements
879	SECTION - VI /PART – B	SUB-SECTION-E-20 CHP	1.09.03	Page 6 of 9	b) For Plates of 10 mm < thickness < 32 mm - 10% RT On butt welds.	Bidder proposes to carry out RT/UT as same permitted in NDT of Boiler Structure clause no. 1.02.11, c, ii, page 11 of 13 under Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries.	Bidder to meet the specification requirements

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
880	SECTION - VI /PART – B	SUB-SECTION E-59 CIVIL WORKS	1.0 a	1 of 5	Before execution of any civil work the contractor shall conduct full-scale suitability tests on various onstruction and building material such as fine and coarse aggregates, cement, construction chemicals, supplementary cementitious materials and construction water to ascertain their suitability for use and the concrete mix designs conducted from reputed institutes such as NCB-Ballabgarh, CSMRS-Delhi, selected IIT's, etc. as agreed by the Employer. The test samples for such full-scale testing shall be jointly sampled and sealed by the Employer and contractor, thereafter these shall be sent to the concerned laboratory through the covering letter signed by field quality assurance department (FQA) representative of the Employer. Format for sampling and testing of cement, coarse aggregate, fine aggregate, chemical admixture, fly ash, water, oncrete mix design is enclosed at Annexure-I.	**Bidder proposes the following:** Before execution of any civil work the contractor shall conduct full-scale suitability tests on various construction and building material such as fine and coarse aggregates, cement, construction chemicals, supplementary cementitious materials and construction water to ascertain their suitability for use and the concrete mix designs conducted from reputed institutes such as NCB-Ballabgarh, CSMRS-Delhi, selected IIT's, NABL accredited Laboratories **and in-house lab at site etc.** as agreed by the Employer. The test samples for such full-scale testing shall be jointly sampled and sealed by the Employer and contractor, thereafter these shall be sent to the concerned laboratory through the covering letter signed by field quality assurance department (FQA) representative of the Employer. Format for sampling and testing of cement, coarse aggregate, fine aggregate, chemical admixture, fly ash, water, concrete mix design is enclosed at Annexure-I.	Bidder to meet the specification requirements
881	SECTION - VI /PART – B	SUB-SECTION E-59 CIVIL WORKS	2.0 a	1 of 5	The field laboratory for QA and QC activities shall be established and installed with the adequate facilities to meet the requirement of envisaged day to day tests during execution of the work. Temperature and humidity controls shall be available wherever necessary during testing of samples. The contractor shall furnish a comprehensive list of testing equipment/ instrument required to meet the planned/scheduled tests for the execution of works for Employer acceptance/ approval. The contractor shall mobilize the requisite laboratory equipment and QA&QC manpower in well advance prior to the planned test activity. The tests which cannot be carried out/do not have facilities for testing in the field laboratory shall be done at Employer acceptable testing laboratory.	**Bidder proposes the following:** The field laboratory for QA and QC activities shall be established and installed with the adequate facilities to meet the requirement of envisaged day to day tests during execution of the work. Temperature and humidity controls shall be available wherever necessary during testing of samples. The contractor shall furnish a comprehensive list of testing equipment/ instrument required to meet the planned/scheduled tests for the execution of works for Employer acceptance/ approval. The contractor shall mobilize the requisite laboratory equipment and QA&QC manpower in well advance prior to the planned test activity. The tests which cannot be carried out/do not have facilities for testing in the field laboratory shall be done at **any NABL accredited laboratories or** Employer acceptable testing laboratory	Bidder to meet the specification requirements

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
882	SECTION - VI /PART – B	SUB-SECTION–E-60 INDICATIVE VENDOR LIST	1.1 1.7	Page 1 of 2 Page 2 of 2	However, in case of error/omission, if any, and represented by the successful bidder this will be addressed during the execution of the contract based on the material evidence available with NTPC / Main Contractor. 1.7 The list of sub-vendors is periodically revised to include new sub-vendors. Such a revision may also see a deletion of certain sub-vendors who may have been disqualified on grounds of inadequate performance or banned in line with NTPC's banning policy. The then current list will be shared with the successful bidder immediately on award	Bidder understands that: a) In case vendors who has already approved/have executed various items in NTPC project are not in the indicative vendor list, bidder may consider the same b) NTPC will be sharing the list of banned vendor to successful bidder. Bidder request to share the banned vendors as on date, which will help bidder for taking in to consideration. however the latest list may be shared with successful bidder at time of award. c) Items which are not mentioned in indicative list shall be sourced from main contractor approved vendor with inspection cat-III.	a)Refer clause 1.1(Page1 of E-60) of Indicative Vendor List b)Indicative vendpr list attached with speccification is updated as on date . c)Items which are not appearing in the indicative vendor list, but found critical during detailed engg will be discussed & finalised mutually for vendor control & inspection control.
883	SECTION - VI /PART – A	Annexure-B to subsection II C SMART PROJECT MANAGEMENT SYSTEM	PAGE 3 OF 4	6.02.0	Bidder shall establish Quality control room at the start of project. It shall have all the real time data of the PWHT (Post Weld Heat Treatment) & CCTV cameras feed installed at strategic locations in the plant like SG, TG area where erection work is in progress and digital records of NDT	a) CCTV Cameras at desired location can be installed. Please clarify details of data / process which are required to be monitored with installed CCTV cameras. b) Presently IBR inspectors accept only physical/hardcopy chart **For site for PWHT only:** Digital Recorders with chartless recorder / IIOT sensors may be used, however Director Boiler need to accept the digital form of recording and issue a directive to all IBR Inspectors to accept the same. **For shop:** Existing method shall be followed (as per the manufaturing shop approval condition).	a) Location of the CCTV camers will be decided during execution b) Query is not pertaining to referred clause
884	SECTION - VI /PART – A	Annexure-B to subsection II C SMART PROJECT MANAGEMENT SYSTEM	PAGE 3 OF 4	6.03.0	Heat Treatment Smart PWHT - Pre-heating, post-heating and post-weld stress relief heat treatment chartless recorder / IIOT sensors duly password protected with a connectivity to remote server /Cloud . All hardware and software required to meet above intent shall be in the scope of bidder	Presently IBR inspectors accept only physical/hardcopy chart **For site for PWHT only:** Digital Recorders with chartless recorder / IIOT sensors may be used, however Director Boiler need to accept the digital form of recording and issue a directive to all IBR Inspectors to accept the same. **For shop**- Existing method shall be followed (as per the manufaturing shop approval condition)	Bidder to comply the specification requirement Pl also refer ECC clause no 4.01.00 for details

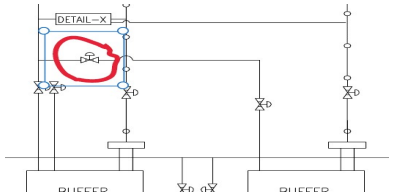
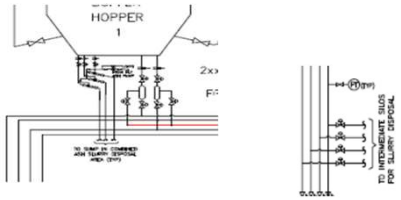
S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
885	SECTION - VI /PART – A	Annexure-B to subsection II C SMART PROJECT MANAGEMENT SYSTEM	PAGE 3 OF 4	6.04.0	6.04.00 Computed Radiographic Testing (RT)– Computed RT shall be used as an advanced Engineering Practice. Main contractor to ensure minimum 10% computed radiography of weld joint to be performed in construction phase. Main contractor to ensure the transfer & storage of these records in Server	Bidder request to perform computed RT on 10% joint for scope agreed in FWS for boiler pressure parts only.	Bidder Understanding is correct. Refer Amendment No : E-QA-03

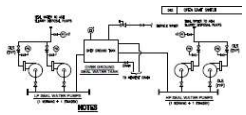
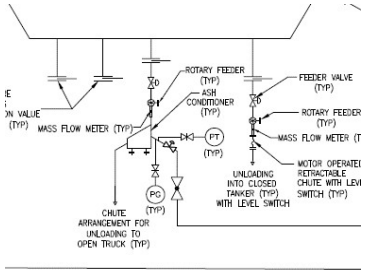
S/N.	Section / Part	Clause No.	Page no.	Bid Specification Stipulation	Bidder's Query	NTPC Clarification
886	Section VI, Part-A, Sub-Section IV Functional Guarantees	1.01.02 Note iv	8 of 73	Contractor's aggregate liability to pay liquidated damages for failure to attain the functional guarantee shall not exceed Fifteen percent (15%) of the Contract Price.	We request NTPC to keep the cap of Contractor's aggregate liability to pay liquidated damages for failure to attain the functional guarantee at ten percent (10%) of the Contract Price.	Bidder's proposal is not acceptable. Bidder is requested to comply with the stipulation of tender documents.
887	Section-VI, Part-A Sub-Section-IID Civil Works	2.03.00	13 of 13	DEVELOPMENT OF LAYDOWN AREA IN ABANDONED ASH DYKE	1. We understand that the supply payment linked with "receipt of equipment/material" shall be released to the Contractor after receipt and physical verification of equipment/material at laydown area to be provided in abandoned ash dyke outside the plant boundary. Kindly confirm. 2. We understand that power shall be provided by NTPC for laydown area provided in abandoned ash pond. Kindly confirm.	1. Bidder`s understanding is correct. 2. Bidder to refer Cl. 2.02.00 of Section VI/Part-A, Sub-Section-IID along with amendment (D1-5).
888	Section-VI, Part-A, Sub-section-I	4.09.00	7 of 8	The Contractor shall be responsible to undertake some activities related to its Corporate Social Responsibility (CSR) in the immediate vicinity of the project. The Contractor shall undertake such activities after prior consultations with the Employer to ensure that the efforts	This clause specifies carrying out of CSR activities as per relevant provisions of Companies Act 2013. We would like to draw your attention that implementing such provision will lead to inequality amongst	CSR activities as per the provision (Rules) under section 135 of the companies Act 2013 relating to CSR and other circulars / instructions of various government departments viz MoEF etc. are to be carried out by the contractor, being statutory in nature.

S/N.	Section / Part	Clause No.	Page no.	Bid Specification Stipulation	Bidder's Query	NTPC Clarification
				of the Employer and Contractor are complemented. The vendor / contractor is expected to carry out the CSR activities as per the provision (Rules) under section 135 of the companies Act 2013 relating to CSR and other circulars / instructions of various government departments viz MoEF etc. The share of CSR expenditure to be incurred by the vendor / contractor for this project in the total CSR expenditure incurred by the vendor/contractor as a company will be in the same proportion as the turnover of the project concerned to the total company turnover. This will be certified by the charted accountant once every fiscal year. Such activities will be undertaken by the contractor / vendor in consultation with the Employer.	bidders in terms of absolute value to be considered towards CSR activities. We therefore request NTPC to specify a fixed value which is to be considered individually by all bidders in their Price Bids for CSR activities to be carried out in the immediate vicinity of the project site. Such a provision will be fair & equitable to all bidders and will also bring in parity during bid evaluation.	
889	Section-VI, Part-A, Sub-section-I	4.10.00	7 of 8	The Contractor shall also jointly facilitate in resolution of Land Acquisition issues related to the Project. Any due payments arising out of the Land Acquisition process shall however be paid by NTPC to the appropriate Authorities.	Land acquisition is linked to R&R issues, grievances redressal of land losers, socio political issues etc. which should be out of EPC Contractor's purview.	No major land acquisition issue is envisaged for the project and further envisaged role of the contractor is only facilitation in resolution of the issues. Bidder is requested to comply with the stipulations of tender documents.

S/N.	Section / Part	Clause No.	Page no.	Bid Specification Stipulation	Bidder's Query	NTPC Clarification
				The vendor / contractor shall visit the site to ascertain the position of land acquisition etc. and it is presumed that the contractor submitted his bid after considering the facts on the ground and that once vendor / contractor is successful in his bid, he will work in cooperation with the client for smooth execution of the project.	We request Employer to exclude the same from bidder's scope of work.	
890	Section-VI, Part-A, Sub-Section-IV Functional Guarantees	1.01.02	5 of 73	AMOUNT OF LIQUIDATED DAMAGES APPLICABLE FOR CATEGORY-I GUARANTEES (Table of Guarantee Parameter, Rate of Liquidated Damages, Limiting Value)	We understand, the stipulated "Limiting Value" is to be understood as Rejection Condition at bidding stage only. e.g., Heat Rate higher than the Limiting Value will lead to bid rejection. Best Heat Rate among bidders (lower than the Limiting Value) will not be used for loading on quoted price using "Rate of Liquidated Damages (LD)".	Bidder understanding is correct. Bidder to please refer note (vi) mentioned in Sub-section-IV/Part-A/Section-VI page 8 of 73 in this regard. No Bid evaluation factor has been envisaged for Heat Rate in specification. No evaluation credit will be provided in case of improved heat rate (lower than the Limiting Value).

S/N.	Section / Part	Clause No.	Page no.	Bid Specification Stipulation	Bidder's Query	NTPC Clarification
					The LD rate mentioned will be used on shortfall during performance test only.	Bidder to comply specification requirement.
891	Section-VI, Part-A, Sub-Section-IA	Attachment-3K	410 to 411 of 411	Format for Letter of Support	We request Employer to specify the value of liability for QFGDM in the format of Letter of Support for Flue Gas Desulphurization (FGD).	The bidder to give the Letter of Support in the format which is attached alongwith theTechnical Specificatons. The liability is based on the letter of support requirements. The respective responsibility is indicated in the letter of support which need to be ensured by the bidder.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
892	TECHNICAL SPECIFICATION SECTION – VI, PART-E	4540-001-POM-A027				Owner to confirm that the marked valve is redundant or valve type shall be manual. Please confirm.	Confirmed. Bidder to refer revised Single Line Diagram. Amendment No: A-MH-29
893	TECHNICAL SPECIFICATION SECTION – VI, PART-E	4540-001-POM-A028				As per referred flow diagram of pressure conveying system, Bidder understands that fly ash slurry directly from Buffer Hopper is not applicable as fly ash slurry shall be below intermediate silos. Kindly confirm Bidder's understanding.	Bidder to refer revised Single Line Diagram. Amendment No: A-MH-29
894	TECHNICAL SPECIFICATIONS SECTION-VI, PART B TECHNICAL SPECIFICATIONS SECTION – VI, PART-A TECHNICAL SPECIFICATIONS SECTION – VI, PART-A	SUB-SECTION: A-21 ASH HANDLING PLANT SUB-SECTION-IV FUNCTIONAL GUARANTEES SUB-SECTION-IIA-16 ASH HANDLING SYSTEM	Page 3 of 40 PAGE 34 OF 73 PAGE 10 of 18	1.03.00, b) 1.03.09 1.01.08	Jet Pumps: Rated Capacity (M3/hr): Three (3) nos. pumps shall evacuate 4 hr. collection of bottom ash in **65 minutes**. incl. 5 minutes time for start/stop/changeover/flushing etc. Total time for evacuating four (4) hours of ash collection from all the hoppers of (APH +SCR +Duct Hoppers) of a unit corresponding to collection rates specified shall not exceed **45 mins** (including change over time. The total time for evacuating four (4) hour collection of bottom ash from a unit corresponding to collection rates specified shall not exceed **85 minutes** including five (5) minutes time required for starting, stopping, sequential change over from one unit to second unit Four (04) streams of horizontal combined ash slurry disposal pumps complete with drive motors, variable speed hydraulic coupling for first stage pumps and fixed belt drive arrangement for subsequent stages, base plate, foundation bolts, inserts, embedment and accessories as specified and as required, out of which two stream will be working, one stream will be normal standby and other stream will act as maintenance standby	There is a discrepancy in the referred clauses regarding BA Ash evacuation time. In view of two (2) combined slurry disposal lines are working out of four (4) lines for disposal of Bottom ash, Coarse ash and Fly ash in wet mode, Bidder requests Owner to confirm the evacuation time for Bottom Ash and Coarse Ash system to design the ash slurry disposal system.	Bidder to refer amendment of clause w.r.t Ash evacuation time. Bidder to comply stipulation of Technical specification w.r.t Ash slurry disposal Pumping stream. Amendment No: A-MH-27 Amendment No: A-MH-28
895	SECTION-VI, Part-A	SUB-SECTION-IIA-16 ASH HANDLING SYSTEM	PAGE 15 of 18	1.04.06	Eight (8) nos. Pump tanks/Air lock tank for each coarse ash silo and four (4) nos. of pump tanks/air locks tank for fine ash hopper for transportation of coarse fly ash and fine fly ash respectively, to silos provided for dry fly ash storage silos meant for Road and Rail loading.	Bidder understands that instead of coarse ash silo, it should be coarse ash hopper. Please confirm Bidder's understanding.	Confirmed. Bidder to refer amendment of respective clause. Amendment No: A-MH-26
896	SECTION-VI, Part-B	SUB-SECTION: A-21 ASH HANDLING PLANT	Page 20 of 40	3.01.00 3.07.00	To handle bag filter, vent filter, vent fan etc for intermediate silo, Main storage silo, HCSD cum FA Silos of the classifier block, BA Crushers and drives, BA metallic conveyor drives To transfer silo (BA & FA) area (with 30% ash by weight) upto HCSD system mixing tanks.	HCSD pump is not applicable for this tender. Please confirm.	Confirmed.

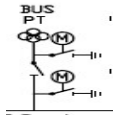
S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
897	SECTION – VI, PART-E	4540-001-POM-A-25				Bidder proposes that HP Seal water can be made by boosting taking output from LP Seal water pump discharge, instead of supply from tank. Please confirm acceptance.	Not accepted. Bidder to comply Technical Specification.
898	SECTION-VI, Part-A SECTION – VI, PART-E	SUB-SECTION-IIA-16 ASH HANDLING SYSTEM 4540-001-POM-A-25	PAGE 11 of 18	1.02.00 c)	Seal water pumps (one working + one standby) for meeting the seal water requirement of Combined slurry disposal pumps and drain water pump of Combined slurry pump house, etc. These pumps shall be located in the Combined ash slurry disposal pump house. As per P&ID: Seal Water Pumps: 2 LP + 2 HP	Discrepancy observed for numbers of LP & HP Seal Water Pumps. Owner is request to confirm the numbers of seal water pumps are to be considered.	Bidder to refer amendment of respective clause. Amendment No: A-MH-25
899	SECTION-VI, Part-A	SUB-SECTION-IIA-16 ASH HANDLING SYSTEM	PAGE 14 of 18	PART A, 1.04.01	In case fine ash and coarse ash is coming through same pipelines to the classifiers, Classification of 40 % of ESP ash (40% of ash conveying capacity) in ash classifiers is to be provided. The remaining unclassified ash shall be taken directly to the coarse fly ash hopper.	Owner to note that exact 40% of ESP ash can not be transferred to classifier with given nos of ash conveying piping. If two lines considered then the capacity of ash classification system will be more than the 40% of ESP ash. Owner to review the same and confirm the basis of classification system sizing.	Classification requirement specified as 40% (minimum) of the ash conveying capacity. Bidder to comply.
900	SECTION-VI, Part-A	SUB-SECTION-IIA-16 ASH HANDLING SYSTEM	PAGE 16 of 18	1.04.17	Two staircase shall be provided for ash classifier to the topmost working platform.	Bidder understands that staircase only upto operating floor shall be provided and silo top will be connected only by elevator. Please confirm Bidder's understanding.	Bidders' query is not clear as elevator is not envisaged in ash classifer. However, proper approach to be provided to all the working floors, as specified.
901		GENERAL			Slurry tank internals	Bidder understands that no liner specified for any sort of slurry tanks, so will not be considered. Please confirm Bidder's understanding.	Liner with material, suitable for the application to be provided for Slurry tank.
902	SECTION – VI, PART-E	4540-001-POM-A-28				Multiple discharge point mentioned for silos. Owner to confirm whether simultaneous unloading of open & closed tanker are to be considered for sizing of vent filter.	Simultaneous unloading of open & closed tanker to be considered in absence of Railway Wagons. During Railway Wagon loading, simultaneous loading of rail Wagon along with either open or closed tanker shall be considered.
903	SECTION-VI, Part-A SECTION – VI, PART-E	SUB-SECTION-IIA-16 ASH HANDLING SYSTEM 4540-001-POM-A-28		1.01.07	Two (2) nos. (one at entry and another at exit) Pitless type Weigh Bridge shall be provided at dry fly ash silo area for Truck/Baulker loading complete with all electrical, controls, civil and structural works for weighment of trucks/baulkers before and after filling. Mass flow meter/Solid flow meter (Two numbers below each silo) complete with all electrical, controls etc to be provided for measurement of ash quantity (total or part, as required) during filling of ash to the road tanker/Rail Wagons.	As per referred clause, weigh bridge for rail loading is envisaged , however, the same is not shown in flow diagram. Owner is requested to check and confirm whether rail loading is envisaged or not.	Rail loading is envisaged. Bidder to refer revised Flow diagram of Ash Handling system. Amendment No: A-MH-29

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
904	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIC CONTROL & INSTRUMENTATION	17 of 18	21.00.00 (2)	Bidder is to provide an Augmented reality/virtual reality-based training model along with all its hardware, software components and required licenses (5 Nos.). The training models shall comprise of dismantling, overhauling, and re-assembling modules up to its last sub-component for major equipment's of Boiler, Turbine, Generator, AHP, CHP. The individual equipment models shall be true to the scale to all its sub-component level. Details of equipment to be covered shall be finalized during detail engineering.	a) Requirement of Augmented reality/virtual reality-based training model is not clear. Bidder request Owner to clarify the exact requirement for hardware and software. Bidder also request Owner to provide detailed technical specification for AR/VR training model to keep all Bidders at-par. b) Bidder request Customer to inform if AR/VR based training model is to be viewed with VR glass or without VR glass as a normal view in PC. Incase VR glass is required then Owner to specify the quantity of the same. c) There are multiple components/ items/ machines in Boiler, Turbine, Generator, AHP and CHP. Bidder request Owner to inform for which major components/ items/ machines this training model is required. d) Bidder understand that this training model is a standalone training package and doesn't have any interface with any other system. Please confirm. e) Bidder understands that one workstation with 5 user license (One each for Boiler, Turbine, Generator, AHP, CHP) is required which shall be used based on respective area authorization. Please confirm. f) As indicated above, requirement of AR/VR based training model is not clear from the given specifications. Further, training on Erection, Commissioning, Operation and Maintenance for STG & its auxiliaries and Boiler & its auxiliaries are already covered under E-Learning package (SECTION VI, PART-C, GENERAL TECHNICAL REQUIREMENTS, Cl. no. 8.03.05). Thus we strongly feel that separate AR/VR based training model should be removed from Current Tender specification. However, Bidder can add the requirement of training on AHP & CHP in E-learning package. Kindly confirm.	a) Specification requirement is clear. The hardware will comprise of VR goggles, compatible VR workstation, necessary sensors, joysticks and all other associated hardwares. The software will comprise of individual VR modules of all models indicated in the specification with neccessary license. b) The quatity of all hardware, software and licenses are five number (5 nos) each. c) All major equipment shall be considered in the model. However the exact count of the same shall be finalized during detailed engineering. d) Bidder understanding is correct. e) Bidders undersatanding is not correct. Please refer reply (b) for quantity of hardware, software and license. f) Bidder understanding is not correct. Bidder to comply specification requirement.
			21 of 114	8.03.05.03 (4n)			
	TECHNICAL SPECIFICATIONS SECTION VI, PART-C BID DOC. NO.:CS-4540-001A-2	GENERAL TECHNICAL REQUIREMENTS					
905	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	Annexure C to IIC Contract quantity	24 of 24	N	24/7 safety control room shall be functional from initial stage of the project construction. Temporary safety control room for the same is to be made functional within three (3) months of LOA. Permanent safety control room shall be made functional within six (6) month from LOA	a) Bidder wish to clarify that no major site activities will be started within 3 months of LOA. Hence, Bidder request Owner to remove the requirement of temporary Safety control room. b) Bidder request Owner to inform the minimum dimensions required for Permanent Safety Control room.	a) Bidder proposal is not acceptable. Bidder to comply specification requirement. b)Refer clause no 5.33.00, Sub section D-1-5, Part B of technical specification.
906	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIC CONTROL & INSTRUMENTATION SYSTEM	17 of 18	21.00.00 (1b)	Digital Helmet: Realwear based Digital Helmet	Bidder wish to highlight that "Real ware Digital helmet" is a Real ware company's product. Bidder request Owner to inform the alternate makes of Digital Helmet in addition to Real ware.	Any equivalent ruggedized handsfree devices with robust design and having functionality similar to that specified shall also be acceptable.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
907	Section-VI/Part-A	IID - Civil works	11 of 13	2.02.00	However, construction water may be provided by Owner at one point near existing Stage-II reservoir on chargeable basis.	Owner to kindly indicate the construction water charges.	Construction water shall be charged as per prevailing rates as on the withdrawl of the same.
908	Section-VI/Part-A	SUB-SECTION-III	3 of 3	5.01.00	Schedule of front Handover of stores area:	Owner to kindly note that schedule of front handover of stores area will delay the below mentioned activities which could have been otherwise started by EPC Contractor after the NOA: a) Civil works of main plant foundation in vicinity area b) Soil investigation c) Construction of Priority Road Therefore Owner is requested to handover the stores area (Sr. No. 1 to 7) on the date of NOA in order to meet project timelines.	Construction schedule has been given considering front handover of stores area as per clause no 5.01.00 Sub section III Part-A of technical specification. Bidder to plan the construction activities considering the same.
909	Section-VI/Part-B TENDER DRAWINGS	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT TENDER DRAWINGS	104 OF 120	5.23.17.01	For all coal Conveyors, each down comer shall lead the water / coal slurry to RCC pit (of 2 Cu.M capacity) to allow settling of coal. The water from the pit shall overflow into contractor's R.C.C drain, which will lead the discharge finally into coal slurry settling pond. Refer below mentioned tender drawing. General Layout Plan - 4540-999-POC-F-001 Layout of Drains - 4540-001-POC-A-005 Layout of Roads - 4540-001-POC-A-004	It is not feasible to discharge/route the coal water coming from Conveyors (Conveyor 4A/B & Conveyor 5A/B) & TP'S (TP-2,TP-3 & TP's in main plant area) to settling pond because of layout constrains (like crossing existing track hopper and road side drain at many locations). In view of this, bidder proposes that coal water coming through each down comer shall lead the water / coal slurry to RCC pit (of 2 Cu.M capacity) to allow settling of coal. The water from the pit shall overflow into R.C.C drain, which will lead the discharge finally into trunk drain routed alongside the nearby road. Please confirm.	Bidder to lead the coal water coming from Conveyors and TPs to Coal Slurry Settling pond.
910	Section-VI/Part-B TENDER DRAWINGS	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT TENDER DRAWINGS	104 OF 120	5.23.17.01	Drainage of the complete coal stock pile, area around stacker reclaimer rails etc. shall be discharged into the owner's coal slurry settling pond. Refer below mentioned tender drawing. General Layout Plan - 4540-999-POC-F-001 Layout of Drains - 4540-001-POC-A-005 Layout of Roads - 4540-001-POC-A-004	It is not feasible to discharge/route the coal water coming from stock pile area (falling south side of Conv.9 as per General Layout Plan drawing 4540-999-POC-F-001) because of layout constrains (like crossing road and road side drain in these areas). In view of this, bidder proposes that coal water coming from this Stock pile area around stacker reclaimer rails etc. shall be discharged into a proposed sedimentation tank placed just next to the stock pile area. Please confirm.	Bidder to lead the coal water coming from Coal Stock pile area to Coal Slurry Settling pond.
911	TENDER DRAWINGS, Part E				General Layout of MUW System Drag No. 4540-001-POC-A-009 Space for laydown and preassembly Land belongs to Kukudula school	As per the GLP, the space for laydown and preassembly (10 Acre) is overlapping with "Land which belongs to Kukudula school". Bidder understands that the aforesaid space (10 Acre) near proposed Reservoir will be made available to EPC Contractor on or before the date of NOA. Please confirm.	laydown area of 10 acres is exclusive of Kukudala School land.
912	Section-VI/Part-A			ANNEXURE-P :	Details of facilities to be dismantled	Bidder would like to clarify that apart from the list of facilities identified in tender specification for dismantling, there may be few additional existing facilities which may be required for dismantling in order to accommodate Stage III facilities as per specification. Items originated out of such additional dismantling work shall be Bidder's property. Please confirm.	Confirmed

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
913	Section-VI/Part-B	SUB SECTION A-15 CW SYSTEM	20 OF 31	2.05.00	Service water distribution shall be used for effective cleaning /washing of each area and shall also fill the service water (PVC tank of 100 liter capacity) tank provided on roof top of each building to supply water to toilets	We understands that service water tanks only required for toilets. Owner to please confirm.	Bidder understanding is not correct. Service water distribution system shall be provided in line with the specification requirement. However, bidder to refer **amendment No- A-WS-05**
914	Section-VI/Part-B	1) SUB-SECTION-D-1-9 CIVIL WORKS ARCHITECTURAL CONCEPTS AND DESIGN 2) SUB SECTION A-15 CW SYSTEM	1) 1 OF 31 2) 20 OF 31	1) 9.03.01 2) 2.05.00	1) Roof water tanks of adequate capacities depending on the number of users and 8 hours requirement shall be provided for each building and pump house. Polyethylene water storage tanks conforming to IS:12701 shall be used. The tanks shall be complete with all fittings including lid, float valve, stop cock, vent pipe, etc. Service water tank shall be of RCC construction. 2) service water (PVC tank of 100 liter capacity) tank provided on roof top of each building to supply water to toilets	In first clause service water tank capacity is mentioned with 8 hours requirements and tank MOC is mentioned as "Polyethylene" and "RCC" where as in second clause tank capacity is mentioned as 100 liter and MOC as PVC. Owner to please clarify the tank capacity and MOC requirements.	**Biddder to refer Amendment no : A-WS-05**
915	Section-VI/Part-B	SUB SECTION A-15 CW SYSTEM	21 OF 31	2.09.00	The plant potable water network shall supply potable water required for all the facilities/ buildings/ areas included in Contractor's scope except make up water pump house & ash water recirculation pump house and shall fill the potable water tanks provided on roof top of each building to supply drinking water (PVC tank of capacity as specified in Civil Works sub section) to drinking water point /water coolers inside the building	Tank for potable water shall be provided on building where toilets are envisaged. Owner to please confirm.	Bidder understanding is not correct. Plant potable water network shall be provided inline with requiremnts of technical specifications. Bidder to comply.
916	SECTION – VI/ PART-B/	SUB-SECTION-D-1-5 CIVIL WORKS	66 OF 120	5.18.01.02	Circulating Water Pump House (CWPH), Raw Water Pump House (RWPH) and Make-up water Pump House (MUWPH) :- Hand-rail with 32 NB (medium) pipes shall be provided around the operating floor on the forebay side in the stoplog and trash rack area.	a) Bidder understand that handrail member sections are mentioned for MUW pump house. Bidder understand that outdoor handrails (if required) for MUW Pipeline steel bridges to be same as MUWPH b) Also Kindly confirm the height of handrail and number of layers to be provided.	Refer clause no 9.02.01 of section VI, Part -B

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
917	SECTION – VI, PART-B	SUB-SECTION-B-17	1.01.07	2 of 60	The GIS building shall have adequate provision (at least 4.0m) for maintenance bay shall be provided one side of GIS building considering the future provision for GIS extension.	Bidder understand that future provision at one end of GIS to be provided, however space for future bay other than indicated in note-4 of SLD (Dwg. No. 4540-001-POE-J-001, Rev.A) is not required. Owner may please confirm.	Bidder under standing is correct for future provision of space at one end of GIS. However bidder understanding is not correct for space for future bay other than indicated in Note-4. Space for Future bay provision at one end shall be considered after Line #3 -tie-Line#4 bay.
918	SECTION – VI, PART-B	SUB-SECTION-B-17	2.03.08	8 of 60	The removal of individual enclosure part or entire breaker bays shall be possible without disturbing the enclosures of neighboring bays.	Bidder understand that removal of breaker component is required and not entire breaker module along with control cabinet. Owner may please confirm.	Bidder under stand is not correct . In GIS , it is not possible to remove the breker componennt with out remove the entire breaker module along with control cabinet.
919	SECTION – VI, PART-E	Dwg. No. 4540-001-POE-J-001, Rev.A	400kV GIS SLD	1	Bay arrangement shown for 400kV GIS SLD.	Bidder understand that bay arrangement shown in Tender SLD is indicative only. Same can be modified/swap based on the layout requirement or OEM requirement. Owner may please confirm.	Bidder's understanding is not correct.
920	SECTION – VI, PART-B	SUB-SECTION-B-17	1.01.07	2 of 60	Maintenance room (as a part of GIS building) shall be constructed for carrying out repair works / small part assembly, storage of material, test equipment and tools and tackles to be stored separately from GIS hall in this room.	Owner may please specify the required dimension of Maintenance room	The minimum dimension of Maintenance room shall be considered 5mt X4mt.
921	SECTION – VI, PART-B	SUB-SECTION B-0 GENERAL ELECTRICAL SPECIFCIATION	3.06.00	8 of 15	MOTOR FEEDERS BELOW 90KW SHALL BE CONTACTOR CONTROLLED. THE MOTOR FEEDERS FOR 90KW & ABOVE SHALL BE AIR CIRCUIT BREAKER CONTROLLED.	Bidder proposes that Motors below 110kW shall be contactor controlled and the Motor feeders for 110kW & above shall be air circuit breaker controlled. Owner may please accept.	Bidder's proposal is not acceptable. Bidder to comply with tech specification requirements.
922	SECTION – VI, PART-B	, SUB-SECTION-D-1-5	5.18.05	85 of 120	Regarding requirement of corridor for power supply line laying in areas of canal crossing, road crossing etc. following shall be applicable: a. Wherever culverts is being used for crossing of existing roads highways etc. necessary space provision for laying of 2 nos. 200mm dia HDPE/hume pipe shall be considered along both sides of pipe line for laying of cables.	Bidder understands that space provision for laying of 2 nos. of 200mm dia HDPE/hume pipe inside culverts shall be provided by Owner. However scope of supply and laying of 2 nos. of 200mm dia HDPE/hume pipe inside culvert shall be by bidder. Owner may please confirm.	Bidder's understanding is in correct. The space provision, supply and laying is in the scope of bidder.
923	SECTION – VI, PART-B	SUB-SECTION-B-04: TRANSFORMERS AND ASSOCIATED MAINTENANCE, MONITORING & TESTING	1.05.1	7 of 33	Permissible maximum losses for 420 kV, 265 MVA Generator Transformer, shall be as per Annexure-A of CEA standard specification and technical parameters for Transformers and Reactors (66kV and above voltage class).	Generator Transformer losses depends on transformer design and varies from supplier to supplier. Bidder understand that, Bidder is allowed to choose losses from offers quoted by various manufacturers. Being EPC project, selection of supplier and equipment shall be done by Bidder. Hence, Bidder understands that the losses specified in CEA standard specification is indicative and not binding. Owner may please confirm.	Bidder's proposal is not acceptable. Bidder to comply with tech specification requirements.

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
924	SECTION – VI, PART-B	SUB-SECTION-B-04: TRANSFORMERS AND ASSOCIATED MAINTENANCE, MONITORING & TESTING	1.05.2	8 of 33	Permissible maximum losses for for 420 kV, 125 MVAR Shunt Reactor shall be as per Annexure-A of CEA standard specification and technical parameters for Transformers and Reactors (66kV and above voltage class).	Reactor losses depends on reactor design and varies from supplier to supplier. Bidder understand that, Bidder is allowed to choose losses from offers quoted by various manufacturers. Being EPC project, selection of supplier and equipment shall be done by Bidder. Hence, Bidder understands that the losses specified in CEA standard specification is indicative and not binding. Owner may please confirm.	Bidder's proposal is not acceptable. Bidder to comply with tech specification requirements.
925	SECTION – VI, PART-E, TENDER DRAWINGS	-	Drg.no. 4540-001-POE-J-001 Rev.A	-		Bidder would like to clarify that the additional earth switch is not required for electromagnetic VTs, since primary of VT is itself earthed. These additional earth switch is required basically for AIS type CVTs where there is an obligation to earth the additional capacitive charges after disconnecting VT from main circuit. Hence, bidder will consider VT with DS (Disconnecting switch) for bus bar metering. Owner may please confirm.	Bidder clarification not acceptable. Bidder to comply the specification requirement.
926	SECTION – VI, PART-B	SUB-SECTION-B-17 SWITCHYARD	5.0.04	26 of 60	CORE DETAILS OF 400kV VT(GIS) Output Burden – Minimum 75 VA	Bidder would like to clarify that the burden of secondary cores of voltage transformer 75VA mentioned is abnormally high. Normal burdens are in the range of 25-50VA which is more than adequate for sub-station protection system requirements. Also as per latest CEA guidelines rated burden for voltage transformer shall not exceed 50VA. Also, as per best engineering practice & proven design, bidder propose to consider 50VA burden for each windings of voltage transformer. Owner may please confirm.	Refered CEA guidelines is in draft. However bidder clarification is noted. Please refer Amendment No B-16

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
927	SECTION – VI, PART-B	Sub Section -B-17	2.03.21	10 of 60	Adequate number of gas leak detectors shall be installed at various locations at the base of the GIS structure to detect presence of gas which may be harmful for human. The detector shall send alarm signal locally as well as at remote stations.	Bidder propose to provide Gas Density monitor in each of the gas compartment. In case of Gas leak, Gas Density monitor shall raise the alarm at defined pressures. Hence, gas leak detector is not required. Owner may please confirm.	Bidder understanding of gas leak detectors & Gas Density Monitor is not correct. Gas density monitor is to detect gas leakage for each of the gas compartment. Gas leak detectors are to be provided in the GIS hall. Bideder to comply the specification reuirement.
928	SECTION – VI, PART-B	Sub Section -B-17 _____ Sub Section -B-17	2.21.00 _____ 11.01.00	13 of 60 _____ 37 of 60	Commissioning Tests On completion of the erection and installation, following commissioning tests shall be performed as per IEC 62271-203, CIGRE working Group 23.03, 1975-Electra No.42, 7-29: _____ Contractor shall perform any additional test based on specialties of the items as per the field QP/ instructions of the equipment supplier or Employer without any extra cost to the Employer.	Bidder would like to clarify that the Site routine test shall be performed as per IEC and OEM standards practice.	Bidder to conduct the site routine test as per IEC and OEM standars practice & also comply the clause 2.21.00 , 11.01.00.
929	SECTION – VI, PART-B	Sub Section -B-17	4.03.00 (b)	20 of 60	The contact shielding shall also be designed to prevent restrikes and high local stresses caused by the transient recovery voltages when these currents are interrupted.	We would like to inform that, Offered disconnectors fully comply IEC 62271-102. As the GIS disconnectors are off-load type switch, the referred clause is not applicable. Owner may please confirm.	The Bidder understanding is not correct. The clause is applicable when the disconnector is in live condition. Bidder to comply the specification requirement.
930	SECTION – VI, PART-B	Sub Section -B-17	11.05.00 (f) 11.06.00 (e)	38 of 60	Capacitance and tan delta measurement at minimum 10kV.	As per OEM recommendation, the subject tests is not applicable for GIS.	These tests are site routine & commissioning test. Bidder to perform the tests as per the list.
931	SECTION – VI, PART-B	Sub Section -B-17	11.07.00 (e)	38 of 60	SURGE ARRESTER a) Grading leakage current. b) Resistance of ground connection. c) Resistive current drawn at rated voltage after energisation.	As per OEM recommendation, the subject tests shall not be performed at site.	These tests are site routine & commissioning test. Bidder to perform the tests as per list.

Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
932	Section VI/ Part-A	Sub section- IB	1 of 15	3.02.00	Water requirement for the project will be met from upstream of the Samal barrage discharge on the River Brahmani and shall be pumped to the raw water reservoir located about 28 kms from **intake well**	Intake well is not applicable for this project.	Bidder to note that it is intake system.Bidder to comply the specification requirement.
933	Section VI/ Part-A	Sub section- A-01	27 of 28	5.00.00	Note: If one unit is stopped, the methanol plant need not to be stopped	Bidder request owner to elaborate requirement. Further any item needs to be take care by bidder shall also be elaborated.	The requirement indicate the necessary interconnection & isolation provisions with other unit. Biidder to accordingly consider items as also specified. Further the sourcing of input requirements like steam etc. shall be taken from the common facilities so as to esnure un-interrupted supply.
934	Section VI/ Part-A	Sub section- A-01	27 of 28	5.00.00	Table : Facility for 200 TPH CO2 Capture Plant at Talchar 2*660 MW 9. Duct tap off location : From Common duct after FGD	Bidder understand that tapping shall be consider for Absorber outlet duct for each unit. There will be one terminal point for each unit. Please confirm bidder understanding.	Bidder to note that tapping shall be from the common duct after FGD system before the chimney inlet.
935	Section VI/ Part-A	Sub section- A-01	28 of 28	5.00.00	1. The height covered for sheeting will be from boiler roof to Penthouse and 15 m below from penthouse. 2. Provision for ventilators / glazed windows shall be made as per functional requirements. The boiler enclosure shall have flat roof with access through staircase / lift	Bidder understands that No Forced ventilation system is envisaged for boiler enclosure covered portion. Please confirm Bidder's understanding.	Bidder to ensure the specified requirements of ventillation and light. Specific details shall be discussed during detail engineering as per the specific design offered.
936	Section VI/ Part-A	Sub section- IIA-16	13 of 18	1.03.01	Provisions shall be there for locating another Pump in the Pump House, for future use	Bidder understands that provision shall include only space provision for pumps for future use. No other provision is envisaged. Please confirm Bidder's understanding.	Bidders' understanding is correct.

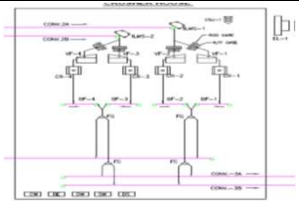
Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
937	Section VI/ Part-A	Sub section- IIA-16	15 of 18	1.04.10	Four (04) numbers (3 working + 1 stand by) refrigerant type air dryer for the above compressors along with accessories as specified and as required.	Requirement of dryer for AHP Compressors, shall be based on OEM Technology requirement. Kindly confirm acceptance.	Bidder to comply the specification requirements
938	Section VI/ Part-A	Sub section- IIA-21	1 of 1		1. Determination of optimal grid connected roof-top Solar PV power plants capacity on different buildings of this package 2. Determination of optimal grid connected solar PV systems for south facing walls (BIPV facade) of different buildings of this package	1. NTPC is requested to provide list of buildings where roof top solar PV power plant is envisaged. Further, Please clarify requirement of roof top solar for AWRS pump house and electrical room, Make Up water pump house & electrical room, buildings in	Refer Amendment No F-1 & F-2
939	Section VI/ Part-B	Sub section- A-25	2 of 26	1.7	Providing a suitable Solar PV module cleaning & water washing system. Bidder shall also provide for water connection from the nearest service water line with necessary pumping arrangement and provide adequate number of water taps with isolating valves depending on the roof/sheds area	Bidder request Owner to elaborate on requirement of cleaning arrangement, access and maintenance requirement for following. 1. south side wall of buildings 2. coal shed 3. Roof top of shed which are not accessible	Refer Amendment No F-1 for deletion of south side wall of building, Further for cleaning arrangement, access & maintenance requirement, please refer Clause no 11 of sub section A-25
940	Section VI/ Part-B	Sub section- A-25	2 of 26	1.7	Providing a suitable Solar PV module cleaning & water washing system. Bidder shall also provide for water connection from the nearest service water line with necessary pumping arrangement and provide adequate number of water taps with isolating valves depending on the roof/sheds area	Bidder proposed to provide waterless cleaning system for solar PV as an alternative. Owner is requested to please confirm.	Bidder to comply the specification requirements
941	Section VI/ Part-B	Sub section- A-25	1 of 26		In all buildings/sheds where solar PV system is installed permanent Staircase access has to be provide with Mild Steel Stairs with minimum width of 1.0m & finished with primer & weather resistant enamel paint	At all Building / shed where Owner has envisaged solar PV, it may not be possible to provide staircase. For access, cage ladder shall also be acceptable. Owner to please accept.	Bidder to comply the specification requirements
942	Section VI/ Part-B	Sub section-D-1-5	94	5.21.00	Steel shed with roof covering with provision for a structural steel monorail shall be provided for foam system including associated civil works for foam bladder tank foundations, grade slab, pipe pedestals etc.	Bidder understand steel shed shall be provided for foam bladder tanks however there will be no foam pumps so monorail shall not be envisaged for foam system. NTPC to confirm	Bidder's understanding is correct.

Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
943	Section VI/ Part-A	Sub section- IID	2 of 13		In case where superstructure dismantling is in Owner's scope, dismantling of all underground facilities including paving /flooring and projection of structures above ground level etc., if any, is in the scope of bidder	Bidder understands that UG facility will be dismantled only in case it is interfering with new proposed facility.	Bidder's understanding is correct. However, bidder to refer Clause 1.00.00 of Part-A, Section-VI, Sub Section - IID
944	Section VI/ Part-A	Sub section- IID	2 of 13	1.00.00	Dismantling planning shall be as detailed below: iii. Rail track from Plant entry gate upto Track Hopper	Bidder understand that Track hopper dismantling is not in scope of work. Further, Track hopper shed (above ground) shall be dismantled by Owner.	Track hopper dismatling is not in EPC scope. Dismantling of Track hopper shed is in EPC Scope. Bidder to refer Amendment no….
945	Section VI/ Part-A	Sub section- IID	2 of 13	1.00.00	Viii, Under-ground MUW Pipe Line inlet line from Plant Boundary upto Stage- I Raw water reservoir	1. Owner is requested to please provide tentative routine of MuW pipe line from plant boundary to stage-I reservoir 2. If UG piping is not interfer with new proposed facility Dismantling of Stage-I MuW pipe is not envisaged.	1.The overground portion of the pipeline is shown in Tender drawing 4540-999-POC-A-015 - Titled "EXISTING FACILITIES, BUILDING WITHIN STAGE-III PLANT AREA". However, the underground portion of pipeline has to be located by the bidder using pipe locater before start of work. 2.Bidder to refer Cl 1.00.00 of Sec-VI, Part-A Sub Section IID
946	Section VI/ Part-A	Sub section- IID	3 of 13	1.00.00	ETP Facility at Sl No. 4(a)-xvi shall not be dismantled. Same is to be utilized for Stage-III.	Due to space constraint for stock pile and coal storage shed as well as operation of stacker-reclaimer. Bidder request Owner to dismantle the existing ETP facility to ensure front availability from start of the project.	**Bidder to refer Amendment no. D1-4**
947	Section VI/ Part-A	Sub section- IID	3 of 13	1.00.00	Existing Stage-II reservoir area will be handed over to the Project area (Stage- III EPC contractor) after completion & handing-over of new Stage-III reservoir and providing connection from new reservoir to the existing Stage-II PT Plant by the bidder.	1. Bidder has not envisaged raw water piping from Stage-III raw water pump house to Stage-II PT plant. Owner to please confirm it the same is in scope of work. 2. Bidder request owner to please provide flow diagram for Raw water system for stage-III. 3. If piping between Stage-III pump house to Stage-II PT plant in Bidder scope, then, Owner is requested to please clarify scope of demolition / modification work in pipe line corridor etc.	1. Confirmed 2. The flow diagram is to be prepared by the bidder based on technical specification. 3.Bidder to refer Clause 1.00.00 of Part-A, Section-VI, Sub Section -IID

Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
948	Section VI/ Part-A	Sub section- IID	3 of 13	1.00.00	Existing Stage-II PT Plant area can be handed over to the project area (Stage- III EPC contractor) only after completion & handing-over of new Stage-III PT Plant.		No query
949	Section VI/ Part-A	Sub section- IID	3 of 13	1.00.00	Existing Stage-II reservoir area will be handed over to the Project area (Stage- III EPC contractor) after completion & handing-over of new Stage-III reservoir and providing connection from new reservoir to the existing Stage-II PT Plant by the bidder.	Owner is requested to please provide flow and pressure to be considered for Potable water supply to existing potable water system	To be dealt during detailed engineering
950	Section VI/ Part-A	Sub section- IID	3 of 13	1.00.00	Existing Stage-II reservoir area will be handed over to the Project area (Stage- III EPC contractor) after completion & handing-over of new Stage-III reservoir and providing connection from new reservoir to the existing Stage-II PT Plant by the bidder.	Owner is requested to please provide flow and pressure to be considered for supply of water from stage-III to stage II PT plant.	To be dealt during detailed engineering
951	Section VI/ Part-A	Sub section- IID	3 of 13	1.00.00	Packaged type Sewerage treatment plant (3 nos. as indicated in tender drawing General Layout Plan) and sewage pumping station including sewagepump, sump & house and connection up to sewage treatment plants (**either of owner or bidde**r); connection of sewage lines of all buildings under Bidder’s scope to the nearest sewerage system.	STP for Stage-III plant are is in scope of bidder. Bidder do not envisage any connection with Owner's STP. Owner to please confirm.	Connection of sewage line of misc. building like permnent store, workshop, FQA lab, Admin building, construction office, main gate complex, fire station, Canteen, saftey park etc.up to owner's STP located southside of mics building in GLP.
952	Section VI/ Part-A	Sub section- IID	7 of 13	1.00.00	Civil, Structural works for pipe /cable /duct supporting structures, trestles and foundations, Condensate Storage Tank and **CST pump house**, trenches, duct banks, pedestals, thrust blocks, trenches, Hume pipes & culverts, duct	Bidder has envisaged pumps in Condensate storage tank area shall be kept open. No Pump house is envisaged by Bidder. Owner to please confirm.	Confirmed

Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
953	Section VI/ Part-A	Sub section- IID	7 of 13	1.00.00 4540-001-POC-A-012	Intake structure in the river, RCC channel including desilting arrangement, forebay, sump, Stop-logs and Trash Racks, pump house for makeup water pumps including river bank protection. Note - 7 COFFER DAM/DYKE SHALL BE CONSTRUCTED BY BIDDER FOR EXECUTION OF PUMP HOUSE ,FORE BAY,CHANNEL AND RETAINING WALLS ON THE THREE SIDES OF THE FACILITY AREA.	River bank Protection shall be provided in the area wherever required as per Bidder's layout.	Bank protection shall be provided in the form of stones in crates over a suitable synthetic filter along the right bank from 100m upstream to 50m downstream of the proposed intake.A 150mm thick sand layer should be providedover the filter to prevent the mechanical rupture of the fabric by stone crates.The toe of right bank/end of approach channel should be protected by providing apron.
954	Section VI/ Part-A	Sub section- IID	8 of 13	1.00.00	Facilities for rainwater harvesting in Plant area and **other buildings** in Bidder's scope	Owner has considered rain water harvesting in plant area. Please elaborate on Other buildings.	Facilities for rainwater harvesting in Plant area and other buildings of plant in Bidder's scope
955	Section VI/ Part-A	Sub section- IID	8 of 13	1.00.00	Civil, structural, architectural works for SOLAR PV plant on 'A-Row' elevation for main power house and roof top of building/facilities in the bidder's scope	Owner is requested to please elaborate on cleaning requirement of Solar PV plant on A row of Power house.	It is clarified that there is no solar PV plant on A Row of power house. Bidder to refer Amendment no. D1-32
956	Section VI/ Part-A	Sub section- IID	8 of 13	1.00.00	Primary health center with rest room	Please provide details of Primary health center (size, dimension etc.) along with rest room to be considered in bidder scope.	To be provided as per local bylaws.
957	Section VI/ Part-A	Sub section- IID	9 of 13	1.00.00	Raiway Siding	Owner Is requested to please provide details of utility (i.e. Service water , potable water, power etc) to be provided in railway siding area from plant.	Service water, Potable water, power etc is to be provided in all buildings included in the Railway Siding works.

Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
958	Section-VI/Part-B	SUB-SECTION-G-03	2 of 15	1.01.03	B) Control room for placing panels as well as HMI shall be provided for following areas: External CHP CR at Mine end	No scope of External CHP Control room at mine end is envisaged in scope of work.	External CHP Control room at mine end is not envisaged.
959	Section-VI/Part-B	SUB-SECTION-G-03	3 of 15	1.01.03	However, for FGD building, cable vault shall be provided below switchgear & control room.	Bidder understands that this clause is applicable for Main ESP and/or FGD control building. Please confirm bidder understanding.	Bidder undertanding is correct.
960	Section-VI/Part-B	SUB-SECTION-G-03	9 of 15	1.01.03	The headroom for F.O. trestle in outlying area shall be 2.0m except at road crossing where the headroom shall be 8.0m and for rail crossing the headroom shall be provided as per clause no. 1.01.02(c) of this chapter.	Bidder understand that headroom of 2 M for outlying area shall be applicable for all trestle in plant area except main plant area trestle. Please confirm bidder understanding.	Bidder understanding is correct . This is true for all trestles in outlying area unless otherwise specified elsewhere in specifications.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
961	SECTION – VI, PART-E	4540-001-POM-A-040				Bidder requests Owner to allow option for reversible belt feeder below crusher in additional to unidirectional belt feeder. Kindly confirm the acceptance.	Reversible belt feeder below Crusher shall not be allowed. Bidder to comply stipulation of Technical Specification.
962	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB-SECTION A - 14 WATER TREATMENT PLANT	PAGE 30 OF 36	19.01.00	Corrosion Protection for gates: Acid/Alkali proof chlorinated paint & rubber lined.	Bidder understands that corrosion protection for gates should be Acid/alkali proof lining instead of chlorinated paint & Rubber lining. Please confirm Bidder's understanding.	Bidder's understading is not correct. Bidder to provide Rubber lined for surface in contact with acid or alkali . For non contact area, Acid/Alkali proof chlorinated paint shall be provided.
963	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB-SECTION A - 14 WATER TREATMENT PLANT	PAGE 31 OF 36	21.00.00	UF permeate transfer pumps: Type of pumps: Horizontal Centrifugal (With VFD)	Owner to note that VFD for UF transfer pump is not necessary required, hence, Bidder requests Owner to delete the VFD requirement for UF transfer Pump. Please confirm acceptance.	Bidder's proposal is not acceptable. VFD for UF transfer pump to be provided meeting technical specification requirements.
964	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB-SECTION A - 11 CONDENSATE POLISHING UNIT	PAGE 3 OF 16	4.04.00	Cation resins shall be supplied in hydrogen form and Anion resins shall be supplied in hydroxide form. Cation Resin of gel type may also be offered meeting the criteria as mentioned below in d) (iv).	As mentioned in referred clause, cation resin of gel type can be used but no details mentioned under criteria mentioned in clause d) (iv). In absence of clarity, Bidder understands that gel type cation resin can be offered. Please confirm Bidder's understanding.	Bidder's understanding is correct. Cation Resin of gel type may also be offered meeting the criteria as mentioned in clause no- 4.04.00 c) (iv) as stipulated n clause no- 4.04.00 a) of SUB-SECTION A - 11, Part-B.
965	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB-SECTION A - 11 CONDENSATE POLISHING UNIT	PAGE 5 OF 16	4.06.00	External Regeneration Facility (Regeneration Plant): 1) Resin Separation & Cation Regeneration Vessel (2 sets). 2) Anion Resin Regeneration Vessel (2 sets). 3) Mixed Resin storage vessel (2 sets). 4) Resin injection hopper, complete with a water ejector system for resin makeup. Resin injection hopper shall be sized to handle upto 150 litre of as received new resins.	Owner to note 2 sets of each vessel as per referred clause are not required for 2x660 MW, hence, Bidder proposes one (1) set of each vessel for Resin separation & cation regeneration vessel, Anion resin regeneration vessel and Mixed resin storage vessel which is sufficient for 2x660 MW as followed in past projects. Please confirm acceptance.	Bidder's proposal is not acceptable.Bidder to comply the technical specification requirement.
966	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB-SECTION A - 11 CONDENSATE POLISHING UNIT	PAGE 9 OF 16	5.06.00, b)	Pre Filter (Cartridge Filter): Type: Back washable	Bidder proposes non back washable pre filter instead of back washable. Please confirm acceptance.	Bidder's proposal is not acceptable.Bidder to comply the technical specification requirement.

967	SECTION-VI / PART-A SECTION – VI, PART-E SECTION – VI, PART-E	SUB-SECTION-I INTENT OF SPECIFICATION 4540-001-POM-A-037-Plant Water Scheme 4540-136-POM-A-001-Liquid Effluent Treatment System	3 of 8	1.02.00	Water Treatment Plant Including, - DM plant and CW chemical treatment. - Pre treatment and liquid effluent treatment plant - Chlorine di-oxide plant - Condensate polishing unit including regeneration facility **- Reverse osmosis plant for waste water** - Laboratory equipment	Discrepancy observed between referred drawings and tender specification for ETP. In absence of clarity, Bidder understands that all liquid effluents shall be collected and treated with Flash mixer/tube settler and lamella clarifier in line with tender drawing of Liquid Effluent Treatment System and no any Reverse osmosis (RO) treatment is envisaged for waste water system. Please confirm Bidder's understanding and kindly amend the specification.	Bidder's understanding is not correct. Bidder to design the complete Plant as ZLD compliant meeting the technical specification requirement as a minumum. Bidder shall further consider and provide any other system as required for waste water system for meeting ZLD compliance.
968	SECTION-VI / PART-B SECTION – VI, PART-E SECTION – VI, PART-E	SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA 4540-001-POM-A-037-Plant Water Scheme 4540-136-POM-A-001-Plant Water Scheme	59 of 101	3.05.00	h) Service Water System **Clarified water from the clarified water tank** shall be used as service water. Service water pumps shall take suction from this tank and supply water to the service water pipe network. Capacity of service water pumps shall be as follows: Capacity of each Pump – as per system requirement (minimum 200 Cu.m/hr).	Discrepancy observed between tender specification and drawings regarding source of the service water. As per referred P&ID and Layout of liquid effluent treatment system and Plant Water Scheme, treated service water and CW blowdown water also used as service water, however, as per clause 3.05.00, only clarified water from the clarified water tank is mentioned. Requests Owner to clarify that treated service water and CW blowdown from CMB shall be used as service water or not.	Bidder understanding is not correct. Clarified water from the clarified water tank shall be used as one of the source of service water. Further, bidder to provide provision of re-use of treated service water and CW blowdown from CMB as shown in 4540-001-POM-A-037 and 4540-136-POM-A-001 in service water system.
969	SECTION-VI / PART-B	SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA	58 of 101	3.05.00	d) AC & Ventilation System Makeup Pumps Capacity of each Pump – To meet complete makeup requirement of AC & Ventilation systems (all AC Plants and Air-washer units) of the complete station (minimum 100 m3/hr). e) FGD Gypsum wash System Makeup Pumps Capacity of each Pump – To meet complete makeup requirement of FGD Gypsum wash requirement.	Bidder proposes to consider common pumps for the AC & Ventilation System Makeup and FGD Gypsum wash System Makeup. Also, the minimum capacity of the pump can be decided based on the actual requirement of AC & Ventilation System Makeup and FGD Gypsum wash System Makeup. Accordingly, minimum 100 m3/hr need not to be followed. Please confirm acceptance.	Bidder's proposal is not acceptable.Bidder to comply the technical specification requirement.
970	SECTION-VI / PART-B SECTION – VI, PART-E SECTION – VI, PART-E	SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA 4540-001-POM-A-037-Plant Water Scheme 4540-136-POM-A-001--Liquid Effluent Treatment System	59 of 101	3.05.00	h) Service Water System **Clarified water from the clarified water tank** shall be used as service water. Service water pumps shall take suction from this tank and supply water to the service water pipe network. Capacity of service water pumps shall be as follows: Capacity of each Pump – as per system requirement (minimum 200 Cu.m/hr).	Discrepancy observed between tender specification and drawings regarding source of the service water. As per referred P&ID and Layout of liquid effluent treatment system and Plant Water Scheme, treated service water and CW blowdown water also used as service water, however, as per clause 3.05.00, only clarified water from the clarified water tank is mentioned. Requests Owner to clarify that treated service water and CW blowdown from CMB shall be used as service water or not.	Bidder understanding is not correct. Clarified water from the clarified water tank shall be used as one of the source of service water. Further, bidder to provide provision of re-use of treated service water and CW blowdown from CMB as shown in 4540-001-POM-A-037 and 4540-136-POM-A-001 in service water system.
971	SECTION-VI / PART-B	SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA	58 of 101	3.04.00	All water systems including CW chemical treatment system shall be designed considering the total make-up water availability of 6000 m3/hr without AWRS and 3900 m3/hr with AWRS.	Bidder understands that CW chemical dosing and complete water system shall be designed based on the capacity decided as per the tender datasheet and actual requirement, total make-up water availability is indicated for the reference only, please confirm.	Bidder to note that CW chemical dosing system shall be designed for the worst condition requirement which shall be decided during detailed engineering considering minimum of 5 COC and meeting specification requirement.
972	SECTION-VI / PART-B	SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA	59 of 101	3.05.00	Capacity of each Pump – as per system requirement (minimum 200 Cu.m/hr). i) Potable Water System Potable water system shall meet the drinking water required for all the plant facilities/ buildings included in Contractor's scope and supply water to Employer's colony up to the specified terminal point. Number and Capacity of pumps shall be as follows: Capacity of potable water requirement will be 80 m3/hr for colony and 20 m3/hr (minimum) for plant	Bidder noted the Capacity of potable water requirement for colony and for plant, However, Owner is requested to provide the actual consumption of the potable water in the colony as well as plant to decide average potable water consumption for water balance.	Bidder to calculate average potable water requirement in colony and plant for water balnce based on latest staturatory norms of manpower water consumption requirement and good engineering practice. However capacity of pumps shall be in line with specification requirement.

973	SECTION-VI / PART-B	SUB-SECTION-A-14 BID DOC.NO. CS-4540-001A-2 WATER TREATMENT PLANT	20 of 36	11.01.00	9) Chemical preparation tanks with necessary agitation requirement shall be provided as required. After neutralization, the neutralized wastewater shall be pumped to N-pit.	Bidder understands that chemical waste of ClO2 plant shall be transferred to the N-pit and in N-pit neutralization process will be carried out.	Bidder's understanding is not correct.After neutralization of chemical waste of ClO2, it shall be pumped to N-pit.
974	SECTION-VI / PART-B	SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA SUB-SECTION-A-14 BID DOC.NO. CS-4540-001A-2 WATER TREATMENT PLANT	64 of 101 31 of 36	3.06.00 20.00.00	Bidder shall consider DM water consumption during boiler hydro test, cold startup of the both units in design calculation while sizing the DM plant and DM water storage tanks. DM water storage tanks	Bidder proposes to consider DM water consumption during boiler hydro test, cold startup of the one unit and not for both units running simultaneous, other unit will be considered as running in stable load, for design calculation of sizing the DM plant and DM water storage tanks. Owner is requested to please confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply the technical specification requirement.
975	SECTION-VI / PART-B	SUB-SECTION-A-01 BID DOC.NO. CS-4540-001A-2 EQUIPMENT SIZING CRITERIA	60 of 101	3.06.00	Chemical House: A common two (2) storey Chemical house of RCC construction shall be provided to install various Chemical dosing equipment, pumps, tanks, piping etc. of PT–CW & Potable, PT–DM, PT-RO plant (As applicable)	Bidders understands that common chemical house can be provided for all plant chemical including the CW chemical dosing, Please confirm Bidder's understanding.	Bidders understanding is not correct. Separate chemical house for PT- DM and CW chemical treatment shall be provided by the bidder meeting the technical specification requirements.
976	Section-VI/Part-B Section-VI/Part-E	SUB-SECTION-D-1-5 4540-001-POC-A-007	23 of 120	5.04.02	Raw water reservoir shall have gross usable capacity as indicated in the tender drawing THE RAW WATER RESERVOIR SHALL HAVE A GROSS USEABLE CAPACITY OF 127500 CUBIC M EXCLUDING DEAD STORAGE.	Bidder understands that gross usable capacity of raw water reservoir shall be 127500 M3 excluding dead storage and free board. Please confirm bidder understanding.	**Bidder understanding is correct.**
977	General				FGD Waste water	Bidder understands that FGD waste water shall be discharge to Ash slurry sump. From ash slurry sump, it will dispose to Mind void by ash slurry disposal pumps. Please confirm bidder understanding.	**Bidder understanding is correct.**
978	Section VI/ Part-B/ Sub section-A-01 Section VI/ Part-B/ Sub section-A-01	Section VI/ Part-B/ Sub section-A-01 Section VI/ Part-B/ Sub section-A-01	69 72	3.12.02 (iv) 3.12.05 (i)	All the landings of boiler staircases, turbine building, crusher house, transfer points/junction house of internal & external CHP, bunker floors, service building, administrative building, etc. and other multi-storied structures of the entire plant shall be provided with hydrant landing valves. The PLC based panel at fire water pump house and Remote IO panel at Booster pump house shall indicate the status of each pump, system pressure, operation of hydrant and/ or spray system, failure of starting of pumps, healthiness & failure of batteries/ chargers, main supply, low level of fuel oil of diesel engines, tripping of pumps, low level / very low level of water in the water supply system, status of batteries & chargers of panels and diesel engines etc. Alarms from these panels shall also be available to operator at fire alarm addressable panels, central monitoring station and DDCMIS. Control & operation of fire water pumps and borewell pumps of external CHP (at plant end & mine end) shall be possible from OWS at respective DDCMIS of external CHP control system.	External CHP area is located remotely from main plant and it is not part of this specific project. Bidder understands that no fire protection and detection system is envisaged for external CHP area in this tender. Please confirm Bidder's understanding. .	Bidder's understanding is correct. Refer amendment in this regard. Amendment No : A-PU-1 Amendment No : A-PU-2 Amendment No : A-PU-3 Amendment No : A-PU-4
979	Section VI/ Part-A	Sub section-A-12	6	4.00.00	d) MVW Spray system 1) Various cable galleries (in Main Plant area, in ESP control Building, in FGD Buildings, Switchyard, AHP control Building, CHP control Building, Water Treatment Control Building, etc.).	Bidder understands that MVW spray system shall be provided for protection of cable galleries/vault wherever cable galleries/vault are considered for electrical and control buildings as per electrical design requirements. Please confirm Bidder's understanding.	Bidder's understanding is correct.

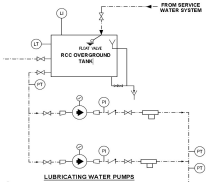
980	Section VI/ Part-A	Sub section-IIA-12	6	4.00.00	d) MVWS spray system 7) All cable trestles of main plant area (from transformer yard to chimney)	1. Bidder understands that fire protection system shall be considered for the Cable trestles only where multiple cable tray arranged in vertical section like its generally arranged in various cable vault of electrical buildings and not in the section where other type of arrangement applicable as practically its vary difficult to arrange fire protection system for each cable tray on Trestles. 2. Fire detection with LHS cable shall also be provided only on alternate tray. Please confirm Bidder's understanding.	1. Bidder's understanding is not correct. MVW spray system shall be provided for all cable trestles of main plant area (from transformer yard to chimney. 2. For LHS cable detection system, Bidder to refer clause 5.05.00, Sub-Section-A-18 (Fire Detection & Protection System), Part-B of Technical Specification.
981	TECHNICAL SPECIFICATION SECTION – VI, PART-A	SUB-SECTION-IIA-15 COAL HANDLING PLANT	4, 5 of 7	1.20.00	Adequate number of ventilation equipment for ventilating the underground portion of Track Hopper, underground tunnel of Conveyors, underground portion of Transfer Points, Coal Stackyard shed complete with all mechanical, electrical, civil and structural works and associated foundations.	Bidder understands that Coal Stackyard shed shall be provided with Natural Ventilation and hence, Mechanical ventilation is not envisaged. Please confirm Bidder's understanding.	Bidder's understanding is correct.
982	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	77 of 101	3.13.01	7. In Air conditioning system the return air shall be through ducts and use of plenum space for return air shall be avoided. Further, FGD control room and ESP Control Room, service building, etc. where various floors are air-conditioned and no intermediate or intervening floor are left non-air-conditioned, the space above false ceiling shall be used as return air plenum.	Bidder understands that Administrative building also to be provided with only supply air duct and the space above false ceiling shall be used as return air plenum in line with service building. Please confirm Bidder's understanding.	Bidder's understanding is correct.
983	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	78 of 101	3.13.01	Air Conditioning system for Service Building, Canteen Building, Administrative Building, etc. shall be designed in- line with ECBC code to make it “Green Building”.	Bidder understands that Service Building, Canteen Building and Administrative Building only shall be designed in- line with ECBC code to make it “Green Building”. No other building is considered for Green Building design, Please confirm Bidder's understanding.	Bidder's understanding is correct.
984	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	80, 81 of 101	3.13.02	(v) GIS building Centralized mechanical ventilation system comprising of centrifugal fans, pre & fine filters, ducting, grilles/diffusers, back draft dampers, acoustic insulation (if required), etc.	Bidder proposes to consider wall mounted supply air Axial fan filter unit for mechanical ventilation of GIS buildings inline with past project. Please note that ducting may obstruct and interfere with Crane movement inside GIS hall. Please confirm acceptance.	In view of huge requirement of ventilation air, centralized mechanical ventilation system has been envisaged. Bidder to comply with specification requirements.
985	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	112 of 120	5.24.00	CHP Workshop cum Office Building: This shall be RCC framed structure having two storeys in office area and single storey (double height) in workshop area. Total floor area of the building shall be 900 Sq.m (700 Sq.m. Office area and 200 Sq.m. Workshop).	Bidder understands that Air conditioning and Ventilation system for CHP Workshop cum Office Building is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details of the same.	Bidder's understanding is not correct. A/C System for control room/RIO room/office areas/etc. of all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. Ventilation System for all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. For sizing & type of A/C and Ventilation System, Bidder to refer clause 3.13.00, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification

986	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	112 of 120	5.25.00	O&M WORKSHOP BUILDING: The office complex shall be 6.50mX110m in plan area. The office complex shall be made 2 storied for adequate space for operating personnel, MCC room, stores, Laboratories, Toilets, Conference room & Tool room. The floor to floor/ roof clear height shall be 4.50m.	Bidder understands that Air conditioning and Ventilation system for office complex is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details of the same.	Bidder's understanding is not correct. A/C System for control room/RIO room/office areas/etc. of all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. Ventilation System for all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. For sizing & type of A/C and Ventilation System, Bidder to refer clause 3.13.00, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification
987	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	114 of 120	5.31.00	FQA BUILDING: Total area shall be decided based on the requirements based in QA chapter, however, minimum area shall not be less than 800 Sqm	Bidder understands that Air conditioning and Ventilation system for FQA BUILDING is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details of the same.	Bidder's understanding is not correct. A/C System for control room/RIO room/office areas/etc. of all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. Ventilation System for all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. For sizing & type of A/C and Ventilation System, Bidder to refer clause 3.13.00, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification
988	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	113 of 120	5.27.00	FIRE STATION BUILDING: It shall be of RCC Frame structure& Brick masonry. The building shall be provided with area 600 sq. m required to accommodate Fire tenders and fire personnel including Dy./Asst. Commandant's (Fire) office.	Bidder understands that Air conditioning and Ventilation system for FIRE STATION BUILDING is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details of the same.	Bidder's understanding is not correct. A/C System for control room/RIO room/office areas/etc. of all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. Ventilation System for all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. For sizing & type of A/C and Ventilation System, Bidder to refer clause 3.13.00, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification
989	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	113 of 120	5.28.00	DOZER SHED: The building shall provide for Dozer shed space, Workshop space, Office Rooms, Stores, Toilet & Pantry as per functional requirement. Minimum size of the dozer shed shall be 500 Sq.m.	Bidder understands that Air conditioning and Ventilation system for Dozer shed space, Workshop space, Office Rooms, Stores, Toilet & Pantry is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details of the same.	Bidder's understanding is not correct. A/C System for control room/RIO room/office areas/etc. of all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. Ventilation System for all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. For sizing & type of A/C and Ventilation System, Bidder to refer clause 3.13.00, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification

990	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	119 of 120	5.33.00	Safety Control Room	Bidder understands that Air conditioning and Ventilation system for Safety Control Room is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details of the same.	Bidder's understanding is not correct. A/C System for control room/RIO room/office areas/etc. of all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. Ventilation System for all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. For sizing & type of A/C and Ventilation System, Bidder to refer clause 3.13.00, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification
991	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	119 of 120	5.34.00	BIO TOILET	Bidder understands that Ventilation system for BIO TOILET is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details of the same.	Bidder's understanding is not correct. A/C System for control room/RIO room/office areas/etc. of all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. Ventilation System for all area/buildings (which are in the scope of the Bidder) is in the scope of the Bidder. For sizing & type of A/C and Ventilation System, Bidder to refer clause 3.13.00, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification
992	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	119 of 120	5.35.00	WORKER'S ACCOMODATION BUILDINGS	Bidder understands that Ventilation system for WORKER'S ACCOMODATION BUILDINGS is not envisaged as per tender specification. Hence, HVAC for the same has not considered by the Bidder. Please confirm Bidder understanding. Incase, HVAC system is to be provided by Bidder than Owner is requested to provide the details for the same.	Only provision for centralised Aircoolers is envisaged as shown in tender drawings.
993	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	79 of 101	3.13.01	DESIGN PHILOSOPHY - Air conditioning system 20. During normal operation period, all the working equipment shall run on A.C. power supply. However, in case of complete black-out condition, DG sets being provided are required to cater the load of some of the air-conditioning equipment so that Main Plant Control Rooms and CER remain air-conditioned. The equipment to run on DG set are: * 2 nos. AHUs for CR & CER	Bidder understands that only one AHU shall be operating in emergency condition for CR and CER. Please confirm Bidder's understanding.	Bidder's understanding is not correct. Two (2) Nos. AHUs for CR & CER shall be operating in emergency condition as specified at referred clause.
994	SECTION- VI, PART – B	SUB SECTION- G-03 LAYOUT PHILOSOPHY	1 of 15	1.01.02 (c)	Face of the buildings and facilities shall be located in such a way so as to have an offset of minimum 15 m with respect to center line of double lane road and 12 meter with respect to center line of single lane road…	Considering limited space availability for accommodating all the facilities of plant meeting the functional requirements, it is requested that the requirement of 15m/12m shall be relaxed to 12m/9m on case to case basis.	Bidder to comply specification requirement .
995	TECHNICAL SPECIFICATION SECTION – VI, PART-E	4540-999-POC-F-001	-	General Layout Plan	Space for CO2 capture (60 x 50)	It is understood that the location indicated in GLP for CO2 capture is indicative and the same can be adjusted by Bidder based on their layout. The same shall be permitted to be relocated just outside the Power Block area. It is also understood that space allocation (60 x 50) is tentative and can be adjusted slightly in Shape and Size. Please confirm.	The bidder has flexibility to the extent that the width of the area of carbon capture may be reduced to minimum 40 m from existing 50 m shown in tender drawing while maintaining the total area of 3000 m2 . Also , minor shifting of the area may be done to the extent that the distance from chimney may not increase by more than 20 m from the existing distance shown in GLP

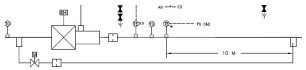
996	Section -VI, Part-B	Sub-section-G-03	1 of 15	1.01.02, b)	The area for construction/erection facilities like lay-down, pre-assembly, offices and stores is to be managed by the Bidder within the overall area available within the plant boundary as shown in General Layout Plan. In case bidder requires additional area, he shall make his own arrangement at....	Bidder understands that vacant land of the plant as indicated in GLP for laydown and pre assembly area, future green belt...etc can be utilized for Stage-III facilities, if required. Please confirm acceptance.	Only space for pre assembly and batching plant area as marked in GLP can be utilized.
997	Section -VI, Part-B	Sub-section-G-03	4 of 15	1.01.02, c)	Face of the buildings and facilities shall be located in such a way so as to have an offset of minimum 15 m with respect to center line of double lane road and 12 meter with respect to center line of single lane road….	Offset distance for building from center line of road to face of the building may compromise in some cases due to space constraint in the plant. Kindly accept it.	Bidder shall comply with specification requirement.
998	Section -VI, Part-B SECTION – VI, PART-E	Sub-section-G-03 SECTION – VI, PART-E	4 of 15	1.01.02, c) 4540-999-POM-F-001, Rev. 0	In case of rail track minimum 3 m horizontal clearance between face of adjacent structure to center line of rail and 8.5m vertical clearance between bottom of structure to top of rail shall be maintained. GLP	As per GLP, pipe rack is indicated on rail track for Fly ash handling system. Bidder understands that there will be sufficient space available on rail track to locate the pipe trestle structure/ foundation. Please confirm Bidder's understanding.	Detail engineering has to be done by the bidder in compliance with technical specifications and railway statutory requirement .
999	Section -VI, Part-B	Sub-section-G-03	10 of 15	1.03.00, 39 (VII)	…..In the tier of trestle, wherever fly ash handling pipes are routed, grating platform all along the length and for full width of the gallery and trestle of that tier shall be provided.	Bidder understands that required grating will be provided only below the containing fly ash conveying pipes. No grating is envisaged on the tier where all water and air pipes will be installed. Please confirm bidder understanding.	Bidder understanding is correct.
1000	Section -VI, Part-B	Sub-section-G-03	5 of 15	1.02.00 (g)	Bidder as a safety requirement shall provide Fire wall on A-row of TG building in front of power transformers as per the statutory and safety requirements.	Bidder understands that Fire wall on A-row of TG building is not envisaged if the distance of power transformer from A row is maintained inline with statutory requirements. Please confirm.	Bidder to comply technical specification and shall provide fire Wall at A row as per the statutory and safety requirement
1001	Section -VI, Part-B	Sub-section-G-03	1.04.00	14 of 15	5. The Bidder shall also make arrangement for storing following mandatory spares (whichever is applicable as per scope of the package) inside TG hall with access from EOT crane: a. Complete assembly of HPT module or its alternative, as applicable b. Complete assembly of IPT module or its alternative, as applicable c. LP Turbine bladed rotor assembly d. HP/IP/LP casing e. Drive Turbine bladed rotor for TDBFP f. Generator Stator/ Generator Rotor g. Boiler Feed Pump motor	Item (f): Generator stator is not applicable. Please confirm.	It is clarified thar Generator stator is not applicable.
1002	Section - VI, Part-E	Section - VI, Part-E	-	4540-999-POC-F-001, Rev. 0	Note 7 : For Boundary wall, this drg may be referred……and security of the plant.	a) Owner to note that new boundary wall is overlapping with existing boundary in southwest and east direction. Therefore, the existing boundary wall in those location needs to be completely dismantled in order to construct new boundary wall. Bidder understands that the dismantling of existing boundary wall will not be allowed by CISF officials considering the safety of the plant and the said boundary is also in good condition. Therefore, the part of existing boundary wall which is completely overlapping with new boundary wall is not required to be dismantled. Please confirm. b) In case the aforesaid proposal is not acceptable, and Owner wants Bidder to dismantle the aforesaid wall then the construction sequence may please be advised.	a) New boundary wall is to be constructed as shown in the GLP. b) Dismantling and new construction in overlapping area to be taken up in consutation with site during execution of work.

1003	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	27 OF 28	6.00.00	**Provision for ready plant for methanol firing** The methanol as produced above (refer cl. 5.00.00) shall be utilized, as a co-firing fuel/support fuel, for future firing in the boilers under the package scope. The provisioning of methanol as a future fuel shall be for 30% BMCR load. The same shall be done by providing/identifying required space including necessary provisioning for pipe routings, cables etc. and for this purpose loads to be factored-in for the trestle design, cable design. **The required space for this purpose has been shown in GLP**. The space for the pumps, tanks etc. shall be kept for the above in fuel oil pump house and boiler area also. Also refer space provisioning requirements referred elsewhere in the specifications.	Bidder understands as under regarding methanol firing provision: 1. Bidder understand that storage of methanol shall be provided inside methanol production area by Owner. 2. Further, Methanol pressurising pumps shall also be kept in Methanol production area near methanol storage. 3. Bidder will provide space for methanol supply piping to Boiler on pipe cum cable trestle. 4. No space shall be provided for methanol pressurising pumps in Fuel oil pump house area. 5. Space provision shall be provided at boiler ground level for methanol drain tank. Owner to confirm Bidder's understanding.	Bidder to note the following- 1 & 2. Bidder's understanding is not correct. Necessary sapce shall be kept in boiler and FOPH (Fuel oil pressurizing pump house) area. 3. Nececssary space and loading provisions shall be kept in the provided carrying arrangement (cable/trestle etc.) towards supply pipe from FOPH to boiler as per above. 4. Bidder's understanding is not correct. Space shall be provided in line with the specifications requirements. 5. Space provisions shall be kept for tanks as specified.
1004	SECTION-VI, PART-A	SUB SECTION-A-22 SEPARATION OF PLANT DRAINS FROM STORM WATER DRAINS	3 OF 3	1.11.00	Fuel oil handling Area The wash water from the FOPH area containing traces of oil shall be pumped to oil water separator RCC pit in the fuel oil unloading area. The decanted water shall be reused/recycled for the washing of fuel oil handling areas. Parallelly, decanted water shall be collected in FOH area RCC pit/ sump(s) and pumped to Employer's waste service water sump (WSWS) located in LET plant.	Wash water from FOPH area shall be transferred to WSWS which is in bidder scope. Please confirm.	Bidder's understanding is not correct. Bidder to provide the complete system for wash water from the FOPH area containing traces of oil shall be pumped to oil water separator RCC pit in the fuel oil unloading area. The decanted water shall be reused/recycled for the washing of fuel oil handling areas. Parallelly, decanted water shall be collected in FOH area RCC pit/ sump(s) and pumped to Employer's waste service water sump (WSWS) located in LET plant as specified in specification.
1005		SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	3 OF 4	1.05.00	Raw water system to supply water to Water Pre-Treatment (PT) Plant and Ash water makeup including 3 x 50% Raw water PT pumps and 3x 50% Raw water Ash pumps. Both the systems Raw water (PT) and Raw water (Ash) should be designed with separate Forced water lubrication	Bidder proposes common lubrication system for raw water pumps for PT and ash. Please confirm.	Bidder's proposal is not acceptable. Bidder to comply the technical specification requirement.
1006	SECTION – VI, PART-A SECTION – VI, PART-A SECTION-VI, PART-B	1) SUB SECTION IIA-11 CW SYSTEM 2) SUB SECTION IIA-11 CW SYSTEM 3) SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1) 3 OF 4 2) 1 of 4 3) 69 OF 101	1.05.00 1.01.01 (7) 3.11.00	1) One number EOT crane (10 tons minimum capacity) shall be for equipment handling and 2 tons minimum capacity electric hoist for handling stoplog gates & trash racks in Raw water pump house. 2) One (1) number 60 Tons (minimum) capacity EOT crane for CW pump house for handling of pumps, drives, discharge Valves, rubber expansion joint etc. during erection, operation and maintenance & one (1) number 5 Tons (minimum) capacity auxiliary monorail electric hoist for handling trash rack & stop log gate. 3) Cranes & Hoists should be sized to handle heaviest component to be handled with 25% margin (with minimum capacity if specifically indicated elsewhere for any system/ equipment) and should comply to IS: 3177/IS: 3938 (as applicable).	Bidder understands that crane capacity shall be fixed based the design criteria specified in Part – B, Mechanical, Section – VI, Sub section-A-01 Equipment sizing criteria ,Pg. No 69 OF 101 (PDF Pg.No 1508 of 2672) at Clause No.3.11.00 . Owner to confirm.	Bidder to note that capacity requirements specified for EOT cranes of CW/RW & MUW PH are Minimum capacity to be provided. However, higher design capacity required in line with Clause No 3.11.00, Point a), Sub-Section A-01, Part-B is in bidder's scope.
1007	SECTION-VI, PART-A	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	57 OF 101	3.03.00 1(b)	a. For TG ECW system- Design flow required for all TG coolers b. For SG ECW system- Design flow required for all SG auxiliaries + other Station Auxiliaries (Air compressors, Mill reject, Ash Handling compressors, FGD & SCR system, any other system envisaged by the bidder)	Alternatively, For Station Auxiliaries separate Primary Cooling water (ECW) and Second cooling water system (ACW) along with Separate cooling tower for station auxiliaries is also acceptable. In such case, SG ECW system shall carry Equipment cooling water requirement for Boiler& auxiliaries only. Owner is requested to please accept.	Bidder's proposal is not acceptable. Bidder to comply the technical specification requirement.
1008	SECTION-VI, PART-A	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	58 OF 101	3.03.00 sr no (5)	Overhead ECW (DM water) tank (separate for TG ECW system and SG ECW system): 1 X 10 cum (min.) (at 60% of the tank height)	We propose to consider 10 m3 as minimum tank volume and other margins like freeboard, dead volume etc. (as applicable) shall be decided by OEM as per their standard practice during detail engineering. Owner to please accept the same.	Bidder's proposal is not acceptable. Bidder to comply the technical specification requirement.

1009	Section VI Part-B	1) SUB SECTION A-15 CW SYSTEM 2) SUB-SECTION-IID CIVIL WORKS 3) SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA 4) SUB SECTION A-15 CW SYSTEM	1 of 31 6 OF 13 55 OF 101 27 OF 31	1) 1.01.00 2) 1.00.00 sr no 13 3) 3.01.00 sr.no (h) 4) 9.00.00 (7)	1) CW pumps shall be located in CW pump house with shed. 2) CW pump house with steel superstructure and metal sheeting at roof including pump foundations, maintenance area, forebay and Transition zone. 3) Location of Pumps: Indoor 4) Pumps and drives to be designed for : Outdoor duty & Continuous Operation	We understands that CW pump house shed is open from side and steel roof at top. Owner to please confirm.	Confirmed
1010	Section VI Part-B	SUB SECTION A-15 CW SYSTEM	31 OF 31	1.00.0	Control philosophy for CW System, MuW, ECW and Auxiliary Water Pumps etc The Pumps shall be controlled from the Control Room	We understands that MUW pump shall be controlled through control room located near MUW pump house. Owner to please confirm.	Bidder understanding is correct. MUW pump shall be controlled from control room located near MUW pump house. Also refer clause no 2.04.05 of IIC, part A for remote operation of Make up water system.
1011	Section VI Part-B	1) SUB SECTION A-15 CW SYSTEM 2) SUB-SECTION A - 14 WATER TREATMENT PLANT 3) Technical Data sheet of Pumps	1)21 OF 31 2) 25 OF 36 3) 24 OF 31	1) 2.07.00 (c) 2) (C) 1 3) 5.00.00	1) A DM water makeup pump house shall be provided near the main DM Water Storage tanks of Water Treatment Plant. All the pumps and associated pumps, drives, Valves etc. shall be located indoor in this pump house. 2) Service of duty ---------Continuous, outdoor --------- 3) Pumps and drives to be designed for: Outdoor duty & Continuous Operation.	Bidder understands that DM water, Service water, Clarified make up, filter water pump, Treated water, Potable water pumps are located outside in open pump house . Owner to please confirm bidder understanding.	Bidder understanding is not correct. Bidder to refer SUB SECTION A-14 WATER TREATMENT PLANT CLAUSE 1.01.00 (3).
1012	Section VI Part-B	XXXX-001-POM-A-038A SCHEME DIAGRAM OF RAW WATER SYSTEM	44 of 73			In flow diagram service water tapping is provided at lubrication tank inlet. We understand that provided tapping is only required for initial filling of tank for normal operation tapping from RWP (PT) header and RWP (Ash) header shall be considered. Owner to please confirm.	Bidder's understanding is correct
1013	Section VI Part-B	SUB SECTION A-15 CW SYSTEM	20 OF 31	2.01.0	From the water reservoir in the Plant, raw water shall be drawn to the Raw Water pump house sumps through an intake channel and forebay OR through Intake Pipes	As per past project experience (i.e 2X660 MW Khargone TPP, 2X660 MW Buxar TPP) we propose Raw water sump shall be directly connect to reservoir via intake channel without forbay or intake pipe. Owner to please accept.	Bidder's proposal is not acceptable. Bidder to comply the technical specification requirement.
1014	Section -VI, Part-B	A-08	10 of 19	1.08.0, Notes : (4)	Gland packing for gate and globe valves shall be alloy steel/SS wire reinforced graphite with stem corrosion inhibitor.	Gland packing will be selected suitably based on the operating conditions of fluid and it's service. Based on services, Teflon single/double and Garlock packing may also be used as an alternative of Graphite packing. Owner is requested to confirm.	Bidder's suggestions based on proven design may be considered during detailed engineering.
1015	Section -VI, Part-B	A-08	12 of 19	1.13.00, 3)	All gate and globe valves shall have bonnet-back seating arrangement or similar arrangement as per manufacturer's standard proven practice.	Back seating is not required for the valves under controlling / regulating services as the packing of these valves can't be replaced during operation. However, for other application, spec requirement will be followed. Owner is requested to confirm Bidder's understanding.	Bidder's suggestions based on proven design may be considered during detailed engineering.
1016	Section -VI, Part-B	A-08	12 of 19	1.13.00, 7)	All gate, and globe valves of size 50 mm and below in vacuum service shall have extra deep gland packing without requiring water gland sealing. All gate and globe valves of size 65 mm Nb and above in vacuum services shall have adequately **deep gland packing and shall be equipped with lantern rings** to admit pressurized water for gland sealing.	Bidder proposes to use Garlock packing as an alternative for valves operating in vacuum conditions. Owner is requested to confirm Bidder's proposal.	Bidder's suggestions based on proven design may be considered during detailed engineering.
1017	Section -VI, Part-B	A-09	04 of 19	2.03.05	Material of construction for pipes carrying various fluids shall be as follows:	Material requirement for some low pressure piping system (plant drains, service water) is not specified in tender spec. Bidder understands that material selection for low pressure piping shall be as per relevant codes and standards..	Material has been specified for various types of water based on Quality. Bidder to note that based on type of Water & quality, material shall be selected.
1018	Section -VI, Part-B	A-09	03 of 19	2.02.09	Inspection holes shall be provided at suitable locations for pipes 800 NB and above as required for periodic observations and inspection purposes.	Inspection holes shall be provided at suitable locations for pipes 1200NB and above as required for periodic observations and inspection purposes as per standard practice. Please confirm.	Bidder's Proposal not acceptable. Bidder to comply the specification requirements.

1019	Section -VI, Part-B	A-09	10 of 19	2.12.02	Valve body material for water application like Secondary circuit auxiliary cooling water of ECW system, Raw water, Ash water make-up, service water, clarified water, DM cooling water (pH corrected) , drinking water etc. shall be cast iron for sizes 65NB and above; **gunmetal for sizes 50 Nb and below.** For compressed air application, valve body material shall be cast carbon steel or forged carbon steel for sizes 65 mm NB & above and **Gun metal for sizes 50 NB and below**.	Valve body material for water application like Secondary circuit auxiliary cooling water of ECW system, Raw water, Ash water make-up, service water, clarified water, DM cooling water (pH corrected) , etc. 50 Nb and below shall be forged steel body ASTM A 105 For compressed air and potable water applications, stainless steel forged valves shall be provided for sizes 50 NB and below.	Bidder may please refer Clause No. 2.13.01 (d), Sub-section: A-09, Part-B of Technical specification, which mentions "Forged carbon steel & Forged stainless steel valves are also acceptable in place of Gun metal valves."
1020	SECTION – VI, PART-B	SUB SECTION –VI CHAPTER-08 WATER SYSTEM	PAGE 3 OF 27	1.00.00 SL.No 7	Complete assembly of rubber expansion joints (including bolts & nuts)	Bidder understand that spares shall be provided for each type of rubber expansion joint as below. i) Control rod ii) Stretcher Plate iii)Rubber bellow iv) Fasteners Complete assembly is not required. Owner requested to confirm.	Bidder understanding is not correct. One (1) set of complete assembly of rubber expansion joint (including bolts & nuts) of each type /size / rating to be provided as per specification.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1021	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	SEC A-01	PAGE 50 OF 101	Cl 2.06.01 Boiler feed pump	The conditions corresponding to (i) (5) shall be met by MDBFP at 47.5Hz.	Bidder understands that MDBFP shall be capable to develop head corresponding to 100%TMCR at 47.5 Hz frequency. Please confirm Bidder understanding.	Bidder understanding is not correct.It shall be as per BMCR/VWO as per the conditions mentioned for head & Flow.Please refer clause 2.06.01 (i) 5 (a) & (b) for more clarity.Bidder to comply specification requirement.
1022	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	SUB SECTION-A-01	PAGE 54 OF 101	Cl 2.09.00	Low Load Feed Control valve (0 to 30% BMCR capacity range) in Feed regulating station (FRS) for feed water flow control , downstream of BFPs, shall be sized with maintaining a differential pressure (DP) of 5kg/cm2(abs) during unit startup upto 30% BMCR Load.	Feedwater flow control below 30% BMCR shall be done using the FRS and the control philosophy shall be as per OEM standard practice. Please confirm Bidder understanding.	This is as per NTPC operating experience and specified differential pressure shall be also used for sizing of control valve.Bidder to comply specification requirement.
1023	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	SUB SECTION-A-01	PAGE 48 OF 101	2.03.06	Provide sentinel relief valve on tube side. Relief valve on shell side sized to pass flow from two ruptured tubes (four open ends) or 10% of water flow corresponding to VWO condition with 3% make up and 77 mmHg (abs) condenser pressure at 10% accumulation whichever is higher and set to open at heater shell design pressure.	As per HEI requirement, Shell side relief valve shall be sized for 10% of the feed water flow or Flow based on the clean rupture of one heater tube resulting in two (2) open ends discharging , whichever is greater, at 10% accumulation. Please confirm acceptance.	This is based on NTPC operating experience and for ensuring safety of the system.This is over and above HEI requirement specified.
1024	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	SUB SECTION-A-07	PAGE 4 OF 25	Cl 1.16.00	Seat tightness of the HP and LP bypass valves shall be equivalent to block valve tightness conforming to MSS SP61.	Bidder clarify that leakage class MSS-SP-61 is applicable only for On-Off valves. The same is not envisaged for Control Valves. Please confirm acceptance.	HP and LP Bypass valve operates in control mode only during start-up and transient phases. In normal operation these will work in off mode so this requirement of tightness shall be MSS-SP61 to avoid any leakage. Bidder to comply specification requirement.
1025	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	SUB SECTION-A-07	PAGE 5 OF 25	Cl 01.16.00	HP-LP Bypass should have the provision of removable valve seat arrangement for ease of maintenance	HP-LP bypass valve seat arrangement shall be as per standard proven practice of supplier. Please confirm acceptance.	In past for sub-critical units valves with removable type seat have been offered and supplied. Further, welded or removable seat is not related to provenness. **Bidder to further refer amendment. (Amendment No : A-TG-10)**

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1026	TECH SPEC-PART 6	Flow diagram HP & LP bypass system	Drg. No. 4540-999-POM-A-005	-		The required pressure drop shall take place in HP bypass valve itself. Hence, the orifice at downstream of the HP bypass valve shall not be required. Please confirm acceptance.	This shall be discussed during detail engineering.
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Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1027	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1.05.20	34 of 101	**ESP SIZING CRITERIA** **(A) Electrostatic Precipitator Design Data** **Design Point** 2. Type of Coal - **Worst coal (max. ash coal from range)**	Bidder understands that Type of Coal - Worst Coal (max. ash coal from range) indicated in reffered clause of ESP sizing criteria are to be considered from "Range of 95% coal supplies" mentioned under DOMESTIC COAL CHARACTERISTICS ANNEXURE-IV-2 . Please confirm Bidder's understanding.	Bidder to note that the type of coal should be considered from the entire range of coal.
	SECTION – VI, PART-A	SUB-SECTION-IB PROJECT INFORMATION	DOMESTIC COAL CHARACTERISTICS ANNEXURE-IV-2	8 of 15	Range of 95% coal supplies - Design, Worst, Best coal Range of 5% coal supplies (Range of Adequacy coal) - Worst, Best		
1028	SECTION-VI, PART-B	SUB-SECTION-E-2 ELECTROSTATIC PRECIPITATOR	1.01.01	1 of 1	2) Work tests for collecting electrodes and rigid discharges electrode include the Following: (d) Cupping test for deep drawn sheets as per **IS 513.**	Bidder request owner to kindly remove the Cupping Test requirement for collecting electrodes and rigid discharge electrodes based on latest version of IS 513:2016..	As per latest IS:2016 this test is there as per mutual agreement. Bidder is requested to follow the specification requirement.
1029	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1.05.21.01	37 of 101	**FGD SYSTEM SIZING CRITERIA** **Design Point** 2. Type of Coal - **Design/Best/Worst Coal** whichever give maximum sizing determining values.	Bidder understands that Type of Coal - Design/Best/Worst Coal indicated in reffered clause of FGD system sizing criteria to be considered from "Range of 95% coal supplies" mentioned under DOMESTIC COAL CHARACTERISTICS ANNEXURE-IV-2 . Please confirm Bidder's understanding.	Bidder to note that the type of coal should be considered from the entire range of coal.
	SECTION – VI, PART-A	SUB-SECTION-IB PROJECT INFORMATION	DOMESTIC COAL CHARACTERISTICS ANNEXURE-IV-2	8 of 15	Range of 95% coal supplies - Design, Worst, Best coal Range of 5% coal supplies (Range of Adequacy coal) - Worst, Best		
1030	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1.05.21.01	37 of 101	**FGD SYSTEM SIZING CRITERIA** **Design Point** 2. Type of Coal - **Design/Best/Worst Coal** whichever give maximum sizing determining values. 4. Gas flow (M3/sec) :To be worked out by Bidder when firing the specified **worst coal** at VWO load, considering 20% excess air at economizer outlet, 15% Air heater in leakage & 2% duct and 1% ESP leakage as a minimum. 6. Inlet SO2 concentration (mg/Nm3)- To be worked out by the Bidder (based on the above conditions).	Bidder understands that FGD should be designed based on flue gas flow rate when firing the specified Design/Best/Worst Coal as per SN (2) above at VWO load whichever gives maximum SO2 load in **kg/hr**. Hence, the corresponding Flue gas flow (m3/sec) will be selected based on maximum SO2 load in kg/hr, when firing specified Design/Best/Worst coal at VWO load, considering 20% excess air at economizer outlet, 15% Air heater in leakage & 2% duct and 1% ESP leakage as a minimum. Please confirm Bidder's understanding.	Bidder's understanding is correct.
1031	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1.05.21.02	38 of 101	**FGD SYSTEM SIZING CRITERIA** The Flue Gas Desulphurisation (FGD) System shall also be designed to achieve SO2 emission of less than 100 mg/Nm3 (6% O2 dry) **for the range of loads at different operating conditions and for range of coals** as specified in this Sub-Section below.	Bidder understands that the range of coal as specified in refffered clause are to be considered from "Range of 95% coal supplies" mentioned under DOMESTIC COAL CHARACTERISTICS ANNEXURE-IV-2 . FGD system design for Range of 5% coal supplies (Range of Adequacy coal) - Worst, Best is not required. Please confirm Bidder's understanding.	Bidder to note that the type of coal should be considered from the entire range of coal.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1032	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1.05.21.02 1.05.21.03	38 of 101	**FGD SYSTEM SIZING CRITERIA** 1.05.21.02 - The Flue Gas Desulphurisation (FGD) System shall also be designed to achieve SO2 emission of less than 100 mg/Nm3 (6% O2 dry) for the range of loads at different operating conditions and **for range of coals as specified in this Sub-Section below.** 1.05.21.03 - The Flue Gas Desulphurisation System shall also be capable to limit SO2 to less than 100 mg/Nm3 (6% O2 dry) on sustained basis when Steam Generator is fired with upto 30% imported coal (by weight) blended with Indian coal as specified.	Bidder understands that Clause no. 1.05.21.03 mentioned under SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA to be reffered for the **"the range of coals as specified in this Sub-Section below".** Please confirm Bidder's understanding.	Bidder's query is not clear. However, bidder to note that the type of coal should be considered from the entire range of coal.
1033	SECTION – VI, PART-A	SUB-SECTION-IIA-04 FLUE GAS DESULPHURISATION SYSTEM	5.03.00	4 of 7	This system shall be comprising of 2x100% gypsum dewatering system with each stream sized to dewater 110% of the maximum gypsum produced by all the two units operating simultaneously at 100% BMCR, with any coal from the specified range of coals (whichever gives the maximum gypsum flow).	As per clause 1.05.21.01, FGD sizing criteria, of SECTION-VI, PART-B,SUB SECTION-A-01, Equipment sizing criteria, FGD DESIGN POINT is **VWO**. NTPC is requested to modify the clause as "This system shall be comprising of 2x100% gypsum dewatering system with each stream sized to dewater 110% of the maximum gypsum produced by all the two units operating simultaneously at FGD DESIGN POINT, with any coal from the specified range of coals (whichever gives the maximum gypsum flow)". The same is already modified in recent NTPC tenders.	**Refer amendmen A-SG-19 in this regard.**
1034	SECTION – VI, PART-A, SUB-SECTION-IIA-04 FLUE GAS DESULPHURISATION SYSTEM	SUB-SECTION-IIA-04 FLUE GAS DESULPHURISATION SYSTEM	5.05.01	5 of 7	The under flow from the secondary hydro-cyclone shall be taken to the filtrate water tank. The over flow from the secondary hydro-cyclone shall be taken to ZLD System.	Please note that overflow from the secondary hydrocyclone is taken to waste water tank and the same is pH corrected by lime neutralisation. The Ph Corrected water shall be sent to the ash slurry system. ZLD system need not to be designed for FGD system.	**Agreed**
1035	SCHEME OF FGD ABSORBER SYSTEM	-	4540-001-POM-A-022			Please note that as per scheme of FGD absorber system, there is emergency spray shown in bypass duct after bypass damper. Please clarify the purpose of this emergency spray in bypass duct after bypass damper.	**Pl. refer 'errata' in this regard.**
1036	SCHEME OF FGD MILLING SYSTEM	-	4540-001-POM-A-023			As per tender, clause no. 3.01.04, 2x100% limestone slurry pumps shall be provided for each absorber connected to each of the limestone slurry tank (total 4 nos. of pumps for 2x660 MW). As per tender flow scheme also, 2x100% limestone slurry pumps is mentioned but **shown are three (3) limestone slurry pumps** for each limestone slurry storage tank. Bidder understands that 2x100% limestone slurry pumps for each absorber (total 4 nos. of pumps for 2x660 MW) to be provided. Please confirm.	Bidder's understanding is correct.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1037	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B, SUB-SECTION-A-05 (FGD)	SUB-SECTION-A-05 (FGD)	3.01.00	4 of 28	The entire flue gas system, flue gas ducts inlet to absorber and bypass duct etc. shall be designed to meet the following conditions: **2. Design Inlet Gas Temperature (deg.C)** 150 or as per Design Point conditions, whichever is higher	Discrepancy is found in the inlet gas temperature between the mentioned clauses. As per clause 1.05.21.01, FGD system sizing criteria, inlet temperature mentioned is 145 degree Celsius or as predicted by the bidder under conditions stipulated above, whichever is higher. However, in clause 3.01.00, it is mentioned as 150 or as per Design Point conditions, whichever is higher. NTPC is requested to kindly clarify.	Please refer amendment A-SG-37 in this regard.
1038	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1.05.21.01	37 OF 101	FGD SYSTEM SIZING CRITERIA The FGD system and all the associated auxiliaries shall be designed to comply with the requirements stipulated under 'Guarantee Point' and 'Design Point' conditions indicated below: **Design Point** Gas temperature at FGD inlet (deg. C) 145 degree Celsius or as predicted by the bidder under conditions stipulated above, whichever is higher		
1039	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	3.03.01 3.03.02	5 of 28	Gates at outlet to Absorber shall also be provided with 2x100 electrical heaters. Quick opening Bi-plane motorized/pneumatic damper along with 2x100% seal air fans & 2x100% electrical heaters shall also be provided in the by-pass duct.	Please note that as per specification the blade and other components in the gas path, of the bypass damper and gate at Absorber outlet shall be made of Carbon steel with C276 cladding of sheet of minimum thickness 1.6 mm or better material. The seals shall be made of Alloy C- 276 or better material. Please note that MOC of bypass damper and gate at absorber outlet is corrosion resistant. Hence, 2x100% heaters is not required. Please confirm the acceptance.	Bidder to comply with the specifications requirement.
1040	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	5.05.00	09 of 28	An emergency cooling system for automatic spray of quenching water for a sufficient time **(minimum 15 min)** at the inlet to the absorber, in case the gas temperature exceeds the design temperature due to failure of upstream equipment's shall be provided to protect the FGD and all other sensitive downstream equipment against high flue gas temperatures.	Discrepancy is found in the short term excursion temperature time. Bidder understands short term excursion temperature time to be considered is minimum 15 minutes. This is also as per all ongoing NTPC projects. Please confirm.	Bidder to note that the specified time is for quenching water time. Bidder to comply with the specifications requirements.
1041	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	3.01.00	04 of 28	Short temp excursion temperature of inlet gas **(for approx. thirty(30) minutes at a time**) (deg. C)		Bidder to note that the specified time is the flue gas temperature excursion time. Bidder to comply with the specifications requirements.
1042	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	5.06.06	10 of 28	The ME system shall be equipped with washing and drain provisions, where drains are directed into the absorber. Washing provisions shall include external and internal piping systems with replaceable nozzles, water pressure booster pumps complete with all piping, valves, instrumentation and controls. **The mist eliminator wash piping shall be constructed of Chlorolobutyl/Bromobutyl rubber lined carbon steel or glass fiber reinforced plastics. The mist eliminator spray headers shall be made of FRP or rubber lined Carbon Steel, corrosions and erosion resistant in the inner and outer side (Silicon Carbide coating on metal/FRP surface exposed to slurry).**	As per latest NTPC tender specification of Lot-6, the clause is modified as "The ME system shall be equipped with washing and drain provisions, where drains are directed into the absorber. Washing provisions shall include external and internal piping systems with replaceable nozzles, water pressure booster pumps **(if required)** complete with all piping, valves, instrumentation and controls. **The mist eliminator wash piping/header shall be constructed of Chlorobutyl / Bromobutyl rubber lined carbon steel or glass fiber reinforced plastics. Polypropylene or PVC is also acceptable for mist eliminator wash headers provided Contractor or its Collaborator has proven experience for the same."** Kindly accept the same.	PI refer amendment A-SG-38 in this regard.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1043	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	6.07.03	15 of 28	The limestone slurry pipes shall be sized to minimize erosion and avoid settling of the limestone at part load operation. The slurry pipes shall be lined with replaceable wear resistant natural rubber lining of minimum 10mm thickness. Additional thickness of 2 mm in rubber lining shall be provided at bends.	Please note that as per latest NTPC specification of Lot-6 the clause is already modified as "The limestone slurry pipes shall be sized to minimize erosion and avoid settling of the limestone at part load operation. The slurry pipes shall be lined with replaceable wear resistant natural rubber lining of minimum 6 mm thickness. Additional thickness of 2 mm in rubber lining shall be provided at bends." Bidder requests NTPC to accept the same.	PI refer amendment A-SG-20 in this regard.
1044	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	7.04.09	17 of 28	Gypsum cake from each belt filter shall be discharged through a hopper onto belt conveyor. The elevation of discharge point of vacuum belt filter shall be atleast **10.0 m above GL.**	Please note that the elevation of discharge point of VBF will depend on general arrangement of gypsum dewatering system equipment. Also, as per latest NTPC specification, the clause "The elevation of discharge point of vacuum belt filter shall be atleast 10.0 m above GL." is already removed. Bidder requests NTPC to remove minimum requirement of 10.0 m above GL for discharge point.	PI refer amendment A-SG-21 in this regard.
1045	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	5.06.17	11 of 28	The spray headers (if provided) and air supply headers shall be made of FRP or Carbon Steel with Chlorolobutyl/Bromobutyl rubber lining (minimum 10 mm natural rubber lining), corrosions and erosion resistant in the inner and outer side (Silicon Carbide coating on metal/FRP surface exposed to slurry). Optionally ceramic coating is also acceptable provided bidder has proven experience for the same. The slurry spraying system shall be made of material resistant to erosion and corrosion. During the lifetime of the plant, only the nozzles shall be replaced. The distribution system of the slurry shall be hydraulically optimized. The spray nozzles shall be of silicon carbide or ceramic or equivalent having a minimum guaranteed life of 20,000 hrs. The design of the spray nozzles shall be such that rapid wear, encrustation and plugging are avoided. Nozzle pipes and slurry spray nozzles shall be with bolted flanged connections. Nozzle pipes shall be installed easily to be removed partially through absorber modules.	Please note that for JBR technology, this clause is not applicable and in recent NTPC tenders, the following clause is already added in addition to mentioned clause. " In case of JBR technology, following shall apply: 1. Slurry spray headers shall be made of Nickel based alloy in gas cooling section. 2. Air supply header inside JBR shall be made of FRP. 3. Slurry spray nozzles in gas cooling section shall be made of SiC. Other slurry spray nozzles are made of SiC or High Alumina or equivalent having a minimum guaranteed life of 20,000 hrs. All wash and water nozzles and pipes shall be made of FRP. SiC coating shall be provided inside FRP slurry pipes." Bidder requests NTPC to include the same.	PI refer amendment A-SG-39 in this regard.
1046	SECTION-VI, PART-B / SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA		1.05.13.03	18 of 101	Margin over 100% BMCR pressure requirement : 44%	Please note that for booster fan sizing, Bidder shall consider following as per all ongoing NTPC projects. Bidder shall consider the margin over pressure requirement as 44% over the calculated head value excluding the static head. Margin on Static head shall be taken as 10%. For bubbling type Absorber, Bidder shall consider choking/blockage of 10% sparger tubes while calculating the head requirements of fan. Please confirm acceptance.	PI refer amendment A-SG-40 in this regard.
1047	TECHNICAL SPECIFICATION SECTION – VI, PART-A	SUB-SECTION-IB PROJECT INFORMATION	Annexure – IV-5	11 of 15	*Guaranteed parameters (guarantee on limestone consumption, auxiliary power consumption & gypsum purity) shall be based on available (reactive) CaCO3 content of 89%.	Discrepancy is found in the CaCO3 content for guarantee case. As per annexure IV-5, limestone analysis, CaCO3 content of 89% to be considered whereas as per clause 1.03.03 of functional guarantee CaO content of 51% to be considered which corresponds to around 91% CaCO3. Please clarify.	This is not descrepancy. Please. refer note indicated in annexure IV-5 of SS-IB, section-A also for more clarity.
1048	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A	SUB-SECTION-IV FUNCTIONAL GUARANTEES	1.03.03	30 of 73	(vi) Gypsum Purity The contractor shall demonstrate that the purity of the gypsum produced shall not be less than 90%, chloride content shall not be more than 100ppm and the moisture content shall not be more than 10% for the range of specified coal(s) and based on CaO content of 51% in limestone		

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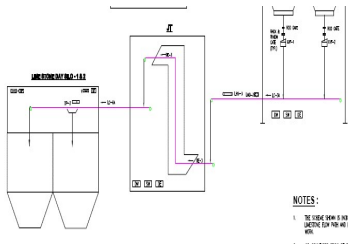
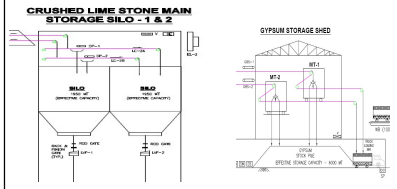
1049	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	3.01.00	4 of 28	6. Recirculation Slurry pH: Not less than 5.5 under all operating conditions	Please note that this clause is applicable only for conventional spray type absorber. In case of JBR technology, Slurry pH will be maintained between 4 and 6. The same is as per all ongoing NTPC projects.	PI refer amendment A-SG-22 in this regard.
1050	SECTION – VI, PART-A	SUB-SECTION-IIA-04 FLUE GAS DESULPHURISATION SYSTEM	5.03.00	4 of 7	One (1) number passenger cum goods elevator of minimum capacity of 1000kgs for each Absorber (to be provided in case height of absorber is higher than 20m) and One (1) number passenger cum goods elevator of minimum capacity of 1000kgs in Limestone Grinding System Building shall be provided for easy access & movement of man/materials.	Discrepancy is found in the requirement of elevator between the mentioned clauses. As per ongoing projects, One (1) number passenger cum goods elevator of minimum capacity of 1000kgs for each Absorber (to be provided in case height of absorber is higher than 20m) One (1) number passenger cum goods elevator of minimum capacity of 1000kgs in Limestone Grinding System Building shall be provided for easy access & movement of man/materials. No Elevator is provided in Gypsum dewatering building. Please check & confirm the acceptance.	PI refer amendment A-SG-41 in this regard.
1051	SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	15.01.00	26 of 28	ELEVATORS One (1) no. Passenger cum goods elevator per Absorber (higher than 15 m),Mill building and dewatering building		
1052	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –A-05 (FGD)	PAGE 10 OF 28	5.06.06	…..The mist eliminator wash piping shall be constructed of Chlorolobutyl/Bromobutyl rubber lined carbon steel or glass fiber reinforced plastics…..	Carbon steel pipe shall be selected for outside pipe up to the nozzles at Mist Eliminator casing. Inside the mist eliminator casing piping header shall be of FRP/CSRL/PP/PVC as per tender specification. This is in line with ongoing NTPC FGD projects. Please confirm	PI refer amendment A-SG-38 in this regard.
1053	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –A-05 (FGD)	PAGE 7 OF 28	5.01.00 (iv)	The slurry recirculation pumps shall have motor /pneumatic driven knife gate valve at pump suction and motor/pneumatic operated Butterfly Valves at discharge side as per the standard practice of bidder.	The Slurry recirculation pumps are not applicable to our offered system. The Gas Cooling pumps provided in our system shall have motor driven butterfly valve in both suction and discharge line which is more durable and compact than gate valve. This is in line with ongoing NTPC FGD projects. Please confirm	Bidder to comply with the specifications requirement.
1054	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –A-05	PAGE 14 OF 28	6.05.04	All parts of the mill including mill body, trunnion, hydro-cyclones, integral pipes, mill circuit pumps and other parts in contract with limestone slurry shall be provided with replaceable rubber wear liners.	For limestone slurry preparation system - Mill auxilaries, integral piping & connecting piping, we will be following as per clause no.12.02.00 FRP pipes (with SiC erosion resistant layer for slurry exposed surface) instead of carbon steel rubber lined pipes as per clause no. 6.05.04, 6.05.09 & 6.07.03. The same is being followed in the ongoing NTPC projects. Bidder request NTPC to check and confirm.	Bidder to comply with the specifications requirement.
1055	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –A-05 (FGD)	PAGE 14 OF 28	6.05.09	The mill auxiliaries like separator tanks, mill circuit pump, hydro-cyclones and all connecting pipes handling limestone slurry shall have replaceable rubber linings.		
1056	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –A-05 (FGD)	PAGE 15 OF 28	6.07.03	The slurry pipes shall be lined with replaceable wear resistant natural rubber lining of minimum 10 mm thickness . Additional thickness of 2 mm rubber lining shall be provided at bends.		
1057	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –A-05	PAGE 23 OF 28	12.02.00	The Contractor can provide slurry pipes size up to 400 NB made up of FRP material as per ASTM 2310 and testing as per ASTM B2583(silicon carbide coating on slurry exposed surface)if it has previous experience of providing the same		

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1058	Section-VI/Part-A	SUB SECTION-IIA-14	Clause no. 1.01.01	586 of 2672	Truck Tipplers each of minimum 40T capacity (Gross weight 60 T minimum) to discharge Limestone on to Box Feeders/Surface Feeders/Truck Unloading Hopper	Bidder understand truck tipler capacity require to consider max. 40 ton (gross wt. 60 ton). Bidder understand maximum 14 wheeler truck with wheel base max 9 meter & rear over hang of the truck max 2 meters require to tipple by truck tipler or else specify the model and make of the truck to be considered. Bidder request to owner to confirm.	Bidder to follow Truck Tipplers in line with Latest Lot FGD projects
1059	Part-6 Section-VI/Part-B Subsection -A-20	-	Drg. No. 4540-001-POM-A-039 (SH-01) Clause no. 3.01.0.(b)	45 of 73 1897 of 2672	Crushed limestone feed the same onto double stream conveying system up to the limestone day silos. 	As per flow diagram (Drg. no. 4540-001-POM-A-039 (SH-01 Rev.A), there is one conveyor stream shown from main storage silo to Limestone day silo-1& 2, where as in clause no. 3.1.0(b) it is mentioned, Crushed limestone feed the same onto double stream conveying system up to the limestone day silos. Bidder request owner to check and clarify what is to be followed.	Bidder to refer revised Limestone flow diagram and refer Amendment of respective clause. Amendment No : A-MH-1
1060	Part-6	-	Drg. No. 4540-001-POM-A-039 (SH-01)	45 of 73		Bidder understand 3 nos. Metal Detector to be considered in the equipment list, in case single stream of conveyor(from Crushed silo to JT) In case of double stream of conveyor, the requirment of Metal detectors shall be 4 no. Bidder request NTPC to clarify nos. of metal detectors and location of the same with flow diagram. Bidder request owner to confirm	Bidder to refer revised flow diagram. Amendment No : A-MH-1
1061	Section-VI/Part-A	SUB SECTION-IIA-14	Drg. No. 4540-001-POM-A-039 (SH-01 &02) & Clause no. 1.01.09	45 of 73 & 46 of 73 587 of 2672 589 of 2672	 Limestone Storage Silos to store limestone equivalent to consumption of minimum 7 days at Design point (Generation of all units to be considered). The maximum capacity of each limestone storage silo shall not exceed 2000 MT The storage shed shall be sufficient to store gypsum equivalent to gypsum generation of minimum 7 days at Design point (Generation of all units to be considered).exceed 2000 MT	Crushed Limestone Main Storage silo-1 &2- a) As per flow diagram (4540-001-POM-A-039 (SH-01 Rev.A) total limestone storage capacity in silo is (1950X2=)3900 MT b) in clause no. 1.01.09 - it is mentioned 7 days storage required and shall not exceed 2000 MT Bidder request owner to clarifiy, what is to be followed. Gypsum storage capacity:- a) it is mentioned as 6000MT in flow diagram (4540-001-POM-A-039 SH-02 Rev.A). b) in clause no. 2.02.00 - it is mentioned 7 days storage required. Bidder request owner to clarifiy, what is to be followed.	Bidder to provide 2 Nos. Silos with minimum storage capacity of 1950 MT each. However, if total 7 days storage requirement exceeds 2x1950 MT, then bidder need to provide additional capacity. In that case, bidder has to provide additional silos (if required), as capacity of single silo shouild not be exceed 2000 MT.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1062	Section-VI/Part-B	Subsection -A-20	Clause no. 3.1.0.(b)	1897 of 2672	From the limestone storage shed/Silo paddle feeders will extract/ reclaim crushed limestone and feed the same onto double stream conveying system up to the limestone day silos.	As per flow diagram bidder understand that, from bulk storage silo material will feed to day silo through rod gate, rack & pinion gate, vibrating feeder & single down stream conveyor. Bidder request to owner to confirm.	Bidder to refer Amendment of respective clause. Amendment No : A-MH-14
1063	Section-VI/Part-B	Subsection -A-20	Clause no. 3.2.0	1897 of 2672	Each stream shall have a set of Rod gates and Rack & Pinion Gates before Vibrating screen Feeders to permit maintenance of equipment.	As per flow diagram bidder understand that there is no Rod gates and Rack & Pinion Gates before vibrating screen feeder. Bidder request to owner to confirm.	Bidder to refer revised Limestone Flow diagram. Amendment No : A-MH-1
1064	Section-VI/Part-B	Subsection -A-20	Clause no. 3.2.0	1898 of 2672	Crush limestone to (-) 20 mm size or to suit limestone pulverizer and system.	Bidder understand that crushed limestone 90% size (-)20 mm & 100% (-)25 mm to suit limestone pulverizer & system. Bidder request to owner to confirm.	Bidder to follow stipulation of Technical Specification.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1065	Section-VI/Part-B	Subsection -A-20	Clause no. 4.1.3	1900 of 2672	The cleaning efficiency should be measured in periodic intervals with suitable instrument.	As per OEM, there is no specific instrument which can be fitted external scrapper for measuring cleaning efficiency. It shall be done manually by collecting material at load / no load condition. Hence same is not considered. Bidder request Owner to check the requirement.	Cleanng efficiency should be measured with suitable arrangement. Bidder to comply.
1066	Section-VI/Part-B	Subsection -A-20	Clause no. 4.4.3	1904 of 2672	'Skirt Material' shall be of low friction, high tear resistance & abrasion resistant polyester based polyurethane/Rubber with Durometer Shore A Hardness of '65 (+/-) 5 and min thickness should be 15 mm. Chamfering to be done at one edge of the skirt. Skirt Plate of each side shall be in single piece.	Bidder understands that said cluse is related to Skirt sealing rubber. Skirt top cover & side plate shall be as per SECTION-VI, PART B,SUB-SECTION-A-20, Clause No. 2.2.3 . Bidder request Owner to confirm our understanding.	Confirmed. Bidder to refer amendment of respective clause. Amendment No : A-MH-8
1067	Additional Query	-				Please furnish limestone flow analysis report for silo design. Else Owner is requested to provide following material characteristics & source of limestone for flow analysis: 1) Cohesive strength 2) Wall Friction 3) Compressibility 4) Permeability 5) Segregation Tendency	Bidder to envisage inputs in line with latest executed Lot FGD projects
1068	Additional Query	-				Owner to furnish make & model no. of trucks , loader shovel used for Limestone & gypsum loading system	Bidder to folllow details in line with latest executed Lot FGD projects.
1069	Additional Query	-				Bidder has not considered to provide snub pulley in small conveyors as frequent compression and expansion of cover grade in the zone of snub pulley will be detrimental to the life of belt and not recommended. Bidder requests owner to confirm.	Bidder to follow stipulation of Technical Specification.
1070	Additional Query	-				Bidder requests owner to furnish repose angle for limestone & gypsum for designing of limestone & gypsum handling system	Bidder to envisage repose angle in line with latest executed Lot FGD projects
1071	Additional Query	-				As Specification is silent regarding height of Gypsum stockpile, Bidder would recommend maximum 10 meter stockpile height with three side retaining wall and one side truck bay for loading of gypsum through trucks as per the earlier executed projects of NTPC. Please check and confirm.	Confirmed.
1072	Part-4	-	4540-999-POC-F-001 General Plot Plan	PDF page 10 of 37		Bidder understand that ramp & parking area both shown in layout are not feasible as maked. This area shown shall be utilised for ramp coming towards the truck tippler. There should be separate space for parking. Bidder request owner to specify separate parking area to be considered, nos. of trucks to be parked and type of parking is open without any shed.	Separate open type parking area (paved) in the vicinity of Truck Tippler for parking of eight numbers of Truck may be considered.
1073	Part-4	-	4540-999-POC-F-001 General Plot Plan	PDF 10 of 35	Note 4: The layout shown is suggestive & same may be further developed by the bidder at detail engineering stage	Bidder understand that there is a flexibility with bidder to optimize Layout compliance with functional & operational requirement.	Layout may be optimized during detail engineering complying the functional & operation requirement in line with the technical specification.
1074	SECTION-VI, PART-B	SUB SECTION-A-20	4.1.2	5 of 101	The calculated life time of the Idler bearings shall be minimum 80.000 operating hours.	As per Previous project experience with NTPC & other customer, idler bearing life is 40000 hours. Bidder request Owner to relook onto the same & confirm.	Bidder to follow stipulation of Technical Specification.