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1075	SECTION-VI, PART-B	SUB SECTION-A-20	4.1.4	5 of 101	Suitable guards marked up scale attached to the frame to monitor belt stretch and access/maintenance platforms with handrails all around etc. shall be provided	Bidder would request to clarify the requirement which is not clear to us.	Technical Specifications is clear in this regard. Marked up scales are to be provided to monitor belt elongation in the take-up tower. Access and maintenance platform with handrails are also to be provided to access these scales and for maintenance of take-up pulley & counterweight etc.
1076	SECTION-VI, PART-B	SUB SECTION-A-20	4.1.5	6 of 101	The design lifetime of the bearing shall not be less than 80.000 operating hours.	As per Previous project experience with NTPC & other customer, Pulley bearing life is 60000 hours. Bidder request Owner to relook onto the same & confirm.	Bidder to follow stipulation of Technical Specification.
1077	SECTION-VI, PART-B	SUB SECTION-A-20	4.4.1 2.1.2	8 of 101 49 of 101	Coal Chutes shall be fabricated from wear resistant steel plates, Hardox 400, 400 HBN or higher quality. However, Limestone/Gypsum chute may be fabricated from Tiscral or equivalent. The material selection shall assist the free flow of coal. The thickness of the chutes shall be 20 mm for the three sides where material slides/impacts the chute and 10 mm for the chute wall that is not subject to abrasion. Chutes shall be provided with 12 mm thick abrasion resistant wear plates at impact points and bolted with countersunk screws. Material : (a) Chute work (b) Sliding zones & adjacent sides : - 20 mm thk. Hardox 400, 400 HBN or higher quality for Coal - 20 mm thk. Tiscral or equivalent for Limestone/Gypsum (c) No striking/ Non sliding zones : 10 mm thk MS	Bidder understand material impact zone 20 mm thick chute plate of Hardox (for Coal) & Tiscral / equivalent (for limestone & gypsum) shall be provided. However, specification asked for again 12 mm thick abrasion resistant wear plates at impact points separately. Bidder understand 12 mm thick plate separately is not required. As two clauses are contradictory regarding chute plate material at non striking zone , bidder is following as per Clause No. 2.1.2 (10 mm thick MS) Please confirm our understanding.	Bidder to refer Amendment of respective clause. Amendment No : A-MH-6
1078	SECTION-VI, PART-B	SUB SECTION-A-20	2.1.0	57 of 101	Crusher Drive arrangement :Electric motor, scoop type hydraulic coupling, gearbox.	Bidder proposed V belt drive for crusher as followed for all NTPC FGD projects. Bidder request Owner to accept the same.	V belt drive for Limestone Crusher may be accepted in line with NTPC FGD Projects.
1079	TECHNICAL SPECIFICATION, SECTION-VI,PART-B	SUB SECTION-A-20	2.01.02 f)	80 OF 101	Dust Suppression System (Plain water type) (2) Location of spray External transfer Points/Gypsum storage area	For Gypsum Handling area after discharge of Vacuum Belt filter material will be wet type. There is no possibility of dust generation. Please allow to delete DS system at receiving end of Gypsum conveyor GA-1A/1B and discharge end at Gypsum	Bidder to follow stipulation of Technical specification and provide Dust Supression over Gypsum Storage area.
1080	VI/PART-B	SUB-SECTION-A-01	1.05.22.01	38 of 41	The Bidder shall furnish unit rates for addition and deletion in height of the chimney with respect to the height mentioned above in relevant schedule of BPS.	To furnish the unit rates bidder shall consider chimney height as minimum 150m and maximum 275m. Please confirm.	In the base proposal, height of chimney shall be considered 275 M. However, take out price to be indicated in case chimney height reduces 150 m for single flue and 220 M for dual flue case from base proposal i.e. 275 M.

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1081	VI/PART-B	SUB-SECTION-A-01	1.05.22.01	39 of 41	Alternatively, Contractor can also provide chimney of 8 mm thick (minimum) mild steel with Borosilicate Glass Block Lining of minimum 38 mm thickness, which should have been in successful operation for similar application in at least two (2) units, located at different locations, for a period not less than two (2) years as on the date of Techno-Commercial bid opening. In such a case, Contractor/Lining supplier shall provide a ten (10) year full replacement guarantee and fulltime onsite QA supervision, during erection & commissioning, by the supplier of the lining system.	To make all bidders at par, bidder requests owner to specify the exact thickness of borosilicate glass block lining as this stack shall be used for both bypass and FGD in operation cases, therefore there will be very limited vendors with required Proneness (Similar operation).	Bidder to note that the requirement of minimum thickness is already specified. Accordingly bidder to frame the proposal.
1082	VI/PART-B	SUB-SECTION-D-1-5	5.03.03	20 of 120	The wind shield shall be designed for vertical loading, cross wind loading, seismic loading, circumferential wind loading, thermal gradients etc. The load calculation and load combinations shall be as detailed in IS 4998. The wind shield shall be analysed for cases with and without flue liner loads.	Bidder understands that latest edition of IS 4998 i.e. IS 4998 : 2015 shall be used for shell design. Please confirm.	Bidder understanding is correct.The load calculation and load combinations shall be as per latest edition of IS 4998
1083	VI/PART-B	SUB-SECTION-D-1-7	7.02.02 (h)	3 of 12	For NGL of the proposed area GLP along with enclosed topographical survey drawing and borelog data may be referred.	The drawing 4540-999-POC-F-002 does not have any topography data for FGD facilities including limestone and gypsum handling area. Kindly share the topographical survey for the FGD facility area.	Available data is already shared. Topographical survey is included in Scope of work. Bidder can carry out Topographical Survey.
1084	VI/PART-B	SUB-SECTION-D-1-7	7.03.00	4 of 12	Two stage flushing of pile bore shall be ensured by airlift technique duly approved by the Employer	Bidder requests to consider Single stage flushing by airlift technique.	Bidder to comply provisions of Technical Specification
1085	VI/PART-B	SUB-SECTION-D-1-7	7.10.00 (a)- 11	11 of 12		19) Other Structure / Facility : Minimum One (01) borehole under each area / facility	Bidder to comply provisions of Technical Specification
1086	VI/PART-B	SUB-SECTION-D-1-7	7.10.00 (b)- 2	11 of 12		Bidder understands that as the Booster fan in FGD is to be placed on Vibration Isolation System (VIS), dynamic load on foundation is not envisaged. Hence, the cyclic plate load test under booster fan in FGD is not required. Thus no Cyclic Plate Load test is required in FGD area.	Bidder to refer Cl. 5.06.03 of Part-B, Section-VI, Subsection-D-1-5. VIS is not envisaged for Booster Fan foundations.
1087	VI/PART-B	SUB-SECTION-D-1-7	7.10.00 (b)- 6	12 of 12		Bidder understands that as the Booster fan in FGD is to be placed on Vibration Isolation System (VIS), dynamic load on foundation is not envisaged. Hence, only one number of Cross Hole shall be done in FGD area including other facilities of FGD area.	Bidder to refer Cl. 5.06.03 of Part-B, Section-VI, Subsection-D-1-5. VIS is not envisaged for Booster Fan foundations.
1088	VI/PART-A	SUB-SECTION-IIA-04	9.01.00	6 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)	This is in contradiction with clause 15.01.00 of Section IV, Part B, Sub-section-IIA-05 page 26 of 28 "One (1) no. Passenger cum goods elevator per Absorber (higher than 15 m),Mill building and dewatering building". Kindly confirm the value of height of Absorber for elevator consideration	Refer amendment A-SG-41 in this regard.
1089	SECTION-VI, PART-B, Book 2 of 5-Electrical	SUBSECTION B-08	2.11.00(HT and LT power cables & control cables)	Page3 of 6	For LT cables, Same cable sizes to be used for same type & rating of motor i.e. if there are three pumps for one application, all three pumps motor should be provided with same cables sizes	Bidder confirms to provide same cable sizes for same type & rating of motor in same equipment of a system within Single Unit. However, In case equipment's of Two different Units of a System are located away from each other due to layout requirements, Bidder proposes to provide different cable sizes for the same as the difference between calculated cable sizes of Two Units may be different. Please check & confirm.	Bidder proposal is not acceptable. Bidder to comply with technical specification
1090	SECTION-VI, PART-B, Book 2 of 5-Electrical	SUBSECTION- B-10	2.01.04 (CABLING EARTHING AND LIGHTNING PROTECTION)	Page 3 of 29	No sub zero level cable vault/trenches shall be provided below control building/switchgear rooms in main plant.	Noted. Further, sub zero level cable vault/trenches may be provided below control building/switchgear rooms in Non-main plants such as CHP, FGD. Kindly confirm.	Confirmed

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1091	SECTION-VI, PART-B, Book 2 of 5-Electrical	SUBSECTION- B-06	7.0.00 (LT SWITCHGEARS & LT BUSDUCTS)	Page 14 of 50	Intelligent Motor Controller (IMC)	Bidder proposes to provide Standard Motor/Heater Feeders (**Non**-IMC) in the FGD Areas. The same is being accepted and followed in NTPC - Buxar FGD projects. Please confirm.	Bidder to provide IMC in FGD area.
1092	SECTION-VI, PART B ANNEXURE	SUB-SECTION-A-21	3.00.00 (32)	8 of 12	CHP 220V DC system shall be separate and independent from other DC systems of plant.	Being small requirement at Bunker MCC Building, DC loads for Bunker MCC Building, shall be fed from Main plan DC system, in line with standard practice. Separate Dedicated DCDB at Bunker MCC Building will be provided. Incomers of this DCDB shall be taken from Main plant DCDB of Unit/station.	Bidder proposal is not acceptable.Bidder to comply with technical specification
1093	SECTION VI, PART-C	GENERAL TECHNICAL REQUIREMENTS	8.03.04 (iv)	16 of 114	Further, two Licenses of the used 3D Modelling Software (One for Engineering View and One for Site View) shall be provided along with compatible Hardware for possible review and study of the Model Files being submitted by the Bidder Time to time.	a) Supply of 3D modelling software (two licenses) is not included in PART-A of Tender specification. Bidder request Owner to clarify if same shall be included in Bidder's scope. b) Bidder understand that requirement of the software is for viewing purpose only. Please confirm c) If 3D modelling software is to be included in Bidder's scope, then Bidder request Owner to clearly specify the requirement of "Compatible hardware" indicated in the referred clause and also provide specification of the hardware (if any hardware is required).	a) The Supply of 3D modelling software is included in bidder scope . b)Bidder understanding is not correct . The requirement of software is not only for viewing but also editing .Further, as per specification bidder has to also furnish model of this project in line specification requirement, so that the same can be viewed and edited for any future use of owner. c) 3D modelling software is included in Bidder scope and bidder to provide "compatible hardware " required for operating the software to view and edit 3D models smoothly in line with specification requirement .By "compatible hardware " it is meant that the hardware meets the "minimum recommended requirement" as per the software OEM .

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1094	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER-04 COAL HANDLING PLANT	PAGE 12 & 13 OF 23	U)	SIDE ARM CHARGER Carriage Wheels (a) Bearings (b) Oil Seals . . . ix) Servo motor	Bidder understands that Side Arm charger is not envisaged in this Project. Hence, the spares mentioned in the referred clause for the same are also not applicable. Please confirm Bidder's understanding and delete the requirement from mandatory spares list.	Confirmed. Refer Amendment No-A-MH-19
1095	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER-04 COAL HANDLING PLANT	PAGE 13 & 14 OF 23	W)	Wagon Tippler and Accessories Carriage Wheels (a) Internals complete including input and output shafts and gears etc. (b) Oil Seals . . . ix) Coupling bolts of drive shaft (fitted/machined bolts) one complete set	Bidder understands that Wagon Tippler is not envisaged in this Project. Hence, the spares mentioned in the referred clause for the same are also not applicable. Please confirm Bidder's understanding and delete the requirement from mandatory spares list.	Confirmed. Refer Amendment No-A-MH-19
1096	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER-04 COAL HANDLING PLANT	PAGE 15 OF 23	X)	APRON FEEDERS 1 Head Pulley complete with shaft 2 Tail pulley complete with shaft . . 16 Coupling bolts of drive shaft (fitted/machined bolts) one complete set	Bidder understands that Appron Feeder is not envisaged in this Project. Hence, the spares mentioned in the referred clause for the same are also not applicable. Please confirm Bidder's understanding and delete the requirement from mandatory spares list.	Confirmed. Refer Amendment No: A-MH-19
1097	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER-04 COAL HANDLING PLANT	PAGE 21 OF 23	O)	PLC (STACKER / RECLAIMER & WAGON TIPPLER)	Bidder understands that Wagon Tippler is not envisaged in this Project. Hence, the spares mentioned in the referred clause for the same are also not applicable. Please confirm Bidder's understanding and delete the requirement from mandatory spares list.	Confirmed. Refer Amendment No:-A-MH-32
1098	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER-04 COAL HANDLING PLANT	PAGE 15 OF 23	Z.A	Truck Tippler	Bidder understands that Truck Tippler is not envisaged in this Project for coal handling plant. Hence, the spares mentioned in the referred clause for the same are also not applicable. Please confirm Bidder's understanding and delete the requirement from mandatory spares list.	Truck Tippler shall be applicable for Limstone Handling plant
1099	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER - 03 ASH HANDLING PLANT	PAGE 4 OF 13 PAGE 6 OF 13	4.02.00 4.05.00	FLY ASH PNEUMATIC CONVEYING SYSTEM Airlock/Blow Tank System: For first stage Pressure Conveying (if applicable) For second stage conveying SCREW COMPRESSOR [Transport Air compressors (TAC) & conveying Air Compressor (CAC)] (Quantities as specified shall be applicable for TAC & CAC separately)	Bidder understands that for single stage pressure conveying, mandatory spares for second stage (airlock, TAC..etc) are not applicable. Please confirm Bidder's understanding. Also, Owner is requested to provide the list of mandatory spares for single stage pressure conveying.	Confirmed. Mandatory Spares for second stage conveying shall not be applicable,if bidder provide single stage Pressure Conveying system. Separate list of mandatory spares for single stage conveying shall not be provided.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1100	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER - 03 ASH HANDLING PLANT	PAGE 7 OF 13 PAGE 12 OF 13	4.06.00 11.02.04	Air Drying Plant for IA System Pre filter element (ceramic candle) . . Valve actuators **Air Blower for drying plant**	Bidder understands that if dedicated instrument air compressors are not envisaged for AHP system then spares for air dryer of IA system shall not be applicable. Please confirm Bidder's understanding and amend the referred clause accordingly.	Confirmed. Refer Amendment No-A-MH-20
1101	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER - 03 ASH HANDLING PLANT	PAGE 12 OF 13	11.02.03	**Motors** **IAC compressor**	Bidder understands that if dedicated instrument air compressors are not envisaged for AHP system then spares for IAC Compressor shall not be applicable. Please confirm Bidder's understanding and amend the referred clause accordingly.	Confirmed. Refer Amendment No-A-MH-20
1101	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER - 03 ASH HANDLING PLANT	PAGE 12 OF 13	10.03.00	ASH POND FUGITIVE DUST SUPPRESSION SYSTEM	Bidder understands that Ash pond is not envisaged in this Project. Hence, **ASH POND FUGITIVE DUST SUPPRESSION SYSTEM** mentioned in spares list is also note applicable. Please confirm Bidder's understanding and delete the requirement from mandatory spares list.	Confirmed. Refer Amendment No-A-MH-18
1102	TECHNICAL SPECIFICATION SECTION-VI, PART-A	SUB-SECTION-VI CHAPTER - 03 ASH HANDLING PLANT	PAGE 9 OF 13	6.00.00	FLY ASH STORAGE SILO (quantities as specified shall be applicable for fly ash Storage silo and HCSD silo separately	Bidder understands that HCSD Silo is not envisaged in this Project. Hence, Spares for HCSD silo are also not applicable. Please confirm Bidder's understanding and delete the requirement from mandatory spares list.	Refer Amendment No: A-MH-21
1103	General	SUB-SECTION-VI Mandatory Spares			-	Owner to note that items/equipment/system which are not envisaged in this tender but the mandatory spares of the same if mentioned in the spares list given in the specification. Bidder understands that spares for such items shall not be applicable. Please confirm Bidder's understanding.	Bidder`s query is generaic and doesnot give the specific items. Bidder to comply the specification requirement

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1104	Section VI/ Part B	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.01 (a)	1 of 13	Drum / Separator/ Storage Tank Each plate shall be subjected to a 100% normal ultrasonic at the mill to meet the minimum requirements of EN 10160:1999 / equivalent ASTM standards. Elevated temperature tensile tests shall also be carried out on plate material for each heat.	Bidder would like to clarify that as per standard practice, we generally use forged material as per pressure part schedule and design instead of plate material for water separator. Hence, this test is not applicable for bidder's design.	These test is critical & shall be carried out as per Tech Spec/applicable standard.
1105	Section VI/ Part B	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.01 (b)	1 of 13	Drum / Separator/ Storage Tank (b) After cutting to size and removal of cut outs, the plates shall be subjected to magnetic particle test along the edges of the plate and on areas adjacent to the cut outs.	Bidder will carry out cut outs by machining-boring only. Bidder proposes to check visual inspection only.	Wherever gas cutting is involved, MPI is necessitated.
1106	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.01 (j)	1 of 13	After stress relieving (SR) all welds, internal and external shall be examined by MPI methods depending on size and accessibility and all butt welds shall be subjected to 100% radiography	Bidder would like to consider ultrasonic testing/radiography/ PAUT+TOFD method for volumetric examination in line with clause no.1.01.01 (h).	Surface & Subsurface defects may not be detected by any volumetric examination.MPI to be coninued. Volumetric examination PAUT+TOFD is acceptable inplace of RT
1107	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.02 (C)	2 of 13	Headers (c)All full penetration nozzle and attachment welds shall be subjected to UT prior to Stress Relieving	We would like to clarify that maximum area shall be covered. Some location full coverage not possible due to nearby Stubs, Hole, opening or nozzle.	UT of All full penetration nozzle and attachment welds shall subject to feasible/accessible area
1108	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.03 (c)	2 of 13	All tubes/panels/coils shall be checked for clearance by steel ball test and for cleanliness by sponge passage.	We would like to clarify that Sponge & ball pass will only be carried out for flat Panel & coils as per bidder's standard practice. For steel Ball & Sponge test of Panels, there are constraint due to Y-pieces, Riffle tubes, 3-Dimensional Opening (3D) etc in WW panels.	Exceptions where there are difficulties can be identified and agreed during QP or execution stage. Hence there is no need for the proposed change.
1109	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.03 (d), ii	2 of 13	(ii) FIELD WELDS: a) Finished butt welds shall be subjected to RT or UT. Wherever the code/standard/process specifies random sampling, the same shall be minimum 20%. b) Finished butt welds not covered under random sampling for RT/UT, referred above at point(a) shall be subjected to RT or UT or PAUT.	Please clarify the quantum of RT or UT or PAUT in field butt weld joints	RT is min 20% and rest either RT,UT or PAUT.
1110	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.04 (g)	4 of 13	All load bearing attachment welds shall be subjected to MPI after SR	NTPC is requested to note that Bidder proposes to carry out PT for inaccessible areas where MPI cannot be done.	PT can be used as an alternative to MT for inaccessible areas.Hence there is no need for the change of request.
1111	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.01.04	3 of 13 & 4 of 13	Wherever MPI is mentioned	NTPC is requested to note that Bidder proposes for MPI on grade 91, 92 and MPI/PT for other grades.	PT can be used as an alternative to MT for inaccessible area.
1112	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.3 (d)	8 of 13	Full range performance test shall be carried out on one fan of each type and size as per BS 848, Part-1.	NTPC is requested to note that BS 848, Part 1 is now withdrawn and replaced by BSEN ISO 5801. Bidder proposes to perform testing as per BSEN ISO 5801 or equivalent.	This portion is also covered in Section-VI/Part B ,Sub-section- A-05.Engg to comment.
1113	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.04 (a)	Pg 8 of 13	Raw material for shaft, coupling, gears and pinions, top and bottom races and other rotating components shall be subjected to UT. MPI/LPI shall be carried out to check surface soundness.	NTPC is requested to note that forged shafts used in Roller Journal Assembly / Tensioning Parts Assembly shall be subjected to UT & MPI, as applicable, during stages of production. However, Shaft, Coupling, Gears & Pinions, Top & Bottom races and other rotating components are the part of bought-outs viz., Gear Box with Lubrication units, Hydraulic Tilting Device, Roller Loading Device etc. These are compliant to supplier internal quality norms & no reports for UT/MPI/LPI will be produced.	This is not an issue.This type of things are generally sorted out during finalisation of QP.
1114	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.04 (b)	Pg 8 of 13	Wear-resistant parts shall be UT/RT tested to check soundness after suitable heat treatment. Check for chemical composition, hardness and microstructure shall be carried out. For ceramic material check for various properties including hardness, density, wear rate and composition shall be carried out.	As per bidder's standard practice, wear resistant parts viz. Roller Liners (Roller Journal Assembly) & Table Liners are composites comprising of SG Iron & Hi chrome material. For such composite material, UT/RT/MPI is technically not feasible. However, LPI shall be conducted to ensure surface integrity. (LPI acceptance norms will be as specified by the supplier specification & approved by bidder).	Surface checking shall not replace volumetric requirements. The same shall continue. However, technical feasibiality for various types/materials of wear resistant parts shall be discussed during detailed enginering based on type/materials proposed by the bidder.

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1115	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.04 (c)	9 of 13	Butt welds in the tube/separator/body casing of the mill shall be tested by UT/RT and MPI. All other welds in main tube/separator shall be tested by MPI/LPI for acceptance. The tube shall be statically balanced.	NTPC is requested to note that these Butt weld shall be subjected to UT after PWHT, as applicable. MPI for fillet welds is not possible considering positional difficulty. Bidder proposes to perform LPI in place of MPI.	LPI in place of MPI at inaccessible areas-acceptable.
1116	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.04 (d)	9 of 13	All gear boxes shall be run tested for adequate duration to check rise in oil temperature, noise level and vibration. Check for leak tightness of gear case also shall be performed.	NTPC is requested to note that trial run duration shall be as per manufacturer specification (approved by Bidder). Oil leakage shall be checked during no load trial run test at bidder's works/shop.	Specifications are asking for certain basic requirements. The details can be worked out based on the execution plan of the particular supplier. These things can not be tied up at this stage
1117	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.04 (e)	9 of 13	Trial assembly (stacking) of at least one mill complete with all major components needs to be carried out at shop.	NTPC is requested to note that at shop, only one mill will be trial assembled with 01 no. Grinding Table, 01 no. Roller Journal Assembly, 01 no. Lower Housing Assembly and 01 no. Middle Housing Assembly.	Scope of Trial Assembly are a part of QP finalisation exercise.There is no need to address the same in address the same in specifications.
1118	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.04 (f)	9 of 13	Fabricated pipe welds should be examined by MPI.	NTPC is requested to note that in case of Pulveriser mill, pipe welds are applicable only for Lower housing (seal air arrangement). This is a low pressure piping. Hence, bidder will perform LPI in place of MPI for these pipings.	MPI is a preferred NDT check, over LPI.However in accessible area LPI is acceptable.
1119	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.06 (c)	9 of 13	All pumps including spare cartridges shall be subjected to performance test at the manufacturer's works under as near site conditions as possible and strip down examination after the test.	NTPC is requested to note that Bidder will consider strip test only in case there is an abnormal sound during performance test of pump.	Strip down test in case there is an abnormal sound during performance test of pump including spare cartidge.
1120	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.11 , c, (ii)	11 of 13	For plates of 25mm < thickness < 32mm - 10% RT/UT and 100% MPI	NTPC is requested to note that Bidder proposes to perform either MPI or PT in lieu of MPI.	PT can be used as an alternative to MT for inaccessible areas.Hence there is no need for the requested change.
1121	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.11 , c, (iv)	11 of 13	All fillet welds of built up plate girders shall be inspected 100% by MPI	NTPC is requested to note that Bidder proposes to perform either MPI or PT in lieu of MPI.	PT can be used as an alternative to MT for inaccessible areas.Hence there is no need for the requested change.
1122	Section VI/ Part B/SUB-SECTION-E-1 Steam Generator and Auxiliaries	SUB-SECTION-E-1 Steam Generator and Auxiliaries	1.02.15 (a)	12 of 13	Hydraulic pressure test shall be carried out on each pipe and expansion bellow	NTPC is requested to note that bidder will perform air leak test in place of hydrotest for metallic expansion joint/below for piping. It is not possible to perform hydraulic pressure test for metallic expansion joint.	The specified one is chosen based on stringency,same will continue.However for MEJ air leak test is acceptable.
1123	Section VI/ Part B	SUB-SECTION-E-5 L P Piping Package	Note 3	01 of 02	Followings are the testing requirements for fabrication of pipes at site RT / UT by (TOFD/PAUT) Technique	LMB proposes to include manual UT in addition to RT / UT by (TOFD/PAUT) Technique as an option for NDT	PAUT & TOFD is latest technique of NDT ,bidder to meet the specification requirements.
1124	Section VI/ Part B	SUB-SECTION-E-6 Power Cycle Piping	-	-	Wherever MPI is mentioned	NTPC is requested to note that bidder will carry out MPI on grade 91, 92 and MPI/PT on other grades pipes. NTPC is requested to note that bidder will carry out MPI to the extent possible. However, for inaccessible areas where MPI is not possible to perform, bidder will perform PT in place of MPI.	PT can be used as an alternative to MT for inaccessible area.
1125	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CS-4540-001A-2	SUB-SECTION- G-06 PRE-COMMISSIONING & COMMISSIONING ACTIVITIES	3.03.06	PAGE 8 OF 14	**Balancing of Coal/Primary air flow:** Contractor shall balance the primary air as well as coal flows in the pulverised fuel pipes such that the minimum PF and PA flow imbalance in the PF pipes from each coal pulveriser does not exceed 5% of average flows. The above balancing shall be checked by the Contractor by carrying out both clean air test and dirty air test (using dirty pitot tubes).	Bidder would like to conduct clean air flow test. Kindly confirm acceptance.	Bidder to comply the specifications requirements.
1126	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CS-4540-001A-2	SUB-SECTION- G-06 PRE-COMMISSIONING & COMMISSIONING ACTIVITIES	3.03.08	PAGE 9 OF 14	**Steam Temperature Imbalance** The Contractor shall demonstrate that at SH and RH outlets (in case of more than one outlet) the temperature imbalance between the outlets does not exceed 10 deg C under all loads including transients.	Kindly note that Temperature imbalance shall be demonstrated at steady load and not during transient condition. Kindly confirm acceptance.	Bidder to comply the specifications requirements.
1127	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CS-4540-001A-2	SUB-SECTION- G-06 PRE-COMMISSIONING & COMMISSIONING ACTIVITIES	3.03.10	PAGE 9 OF 14	Capabilities of all drives After completion of installation of drives, contractor shall demonstrate the capability of all drives as specified elsewhere in Section VI Part B of Technical Specifications.	Kindly note that demonstration of capabilities of individual drive is not possible at site. Shop test report will be provided. Kindly confirm acceptance.	Bidder to comply the specifications requirements.

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1128	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CS-4540-001A-2	SUB-SECTION- G-06 PRE-COMMISSIONING & COMMISSIONING ACTIVITIES	3.03.11	PAGE 9 OF 14	Margin on Fans After completion of installation of fan drives, Fans, inlet and outlet ducting, measuring equipments etc. contractor shall demonstrate the margin on seal air fans, primary fans, Forced draft fans and induced draft fans as specified elsewhere in Section VI Part B of Technical Specifications.	Demonstration of Margins on Fans and other drives are not possible at site. Shop test report will be provided.	Bidder to comply the specifications requirements.
1129	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CS-4540-001A-2	SUB-SECTION- G-06 PRE-COMMISSIONING & COMMISSIONING ACTIVITIES	3.03.13 a)	PAGE 10 OF 14	Performance characteristic of fans (PA/FD/ID fan capacity, head developed, etc.)	Bidder would like to provide shop test report of similar capacity, head fans. Kindly accept the same.	Bidder to comply the specifications requirements.
1130	TECHNICAL SPECIFICATIONS SECTION-VI, PART-A BID DOC NO.: CS-4540-001A-2	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.15.03 (b)	12 of 28	Oil supply line for input shaft bearing should be taken from side/top of the common line, having a collection chamber at the bottom side to trap debris if any.	Bidder would like to follow OEM practice of Gear box supplier for collection chamber. Kindly confirm acceptance.	The detailed aspects shall be reviewed based on the selected mill specific design/scheem. Bidder to comply the specifications requirements.
1131	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B BID DOC.NO. CS-4540-001A-2	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	1.05.08.03	13 of 101	The YGP index for the specified coal is indicated in Project Information, Sub-section- I-B, Part-A, Section-VI of Technical specification when measured as per BS Standard BS-1016 Part-111. The Bidder shall furnish a curve along with his offer indicating the variation in guaranteed wear life with variation in YGP index of coal fired. Separate curves for different wear elements of mill shall be furnished e.g. for grinding rolls, grinding rings, clearly indicating its relationship with YGP index of coal. The curve shall be subject to Employer's approval.	Kindly note that separate curve for wear element i.e only for Roller & Table liner indicating its relationship with YGP index of coal shall be provided. Kindly confirm acceptance.	Bidder to comply the specifications requirements.

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1132	SECTION – VI, PART-B	SUB SECTION-A-02 - SG AND AUXILLARIES	10.02.01 b)	19 of 65	Bunker Shut Off Gates shall be motor operated & RC Feeder outlet gates shall be pneumatic operated	We have observed discrepancy in the highlighted two clauses of tender specification. We understand that bidder may provide motor operated gate at RC feeder outlet as per bidder's standard design. Kindly confirm acceptance.	Bidder to refer the **amendment A-SG-10** for clarity in this regard.
	SECTION – VI, PART-A	SUB SECTION-II A-01-- SG AND AUXILLARIES	2.15.01	11 of 28	Coal chute between outlet of feeder and inlet of mill along with motor/ pneumatic operated shut off gate at RC feeder outlet		
1133	SECTION-VI, PART-B	SUB SECTION- G-04 - STANDARD PG TEST PROCEDURE.	3	PAGE 218 OF 224	NOISE LEVEL MEASUREMENT For eventual noise, from the discharge line, accessories and /or ancillary equipment which are not included, a correction factor of Maximum 4 dB (A) shall be allowed for background & ambient noise.	We would like NTPC to kindly accept following requirements: **A) In case of screw compressor:** For eventual noise, from the discharge line, accessories and/or ancillary equipment which are not included, a correction factor of (+) 8 dBA maximum shall be allowed for background & ambient noise. **B) In case of centrifugal compressor:** For eventual noise, from the discharge line, accessories and/or ancillary equipment which are not included, a correction factor of (+) 12 dBA maximum shall be allowed for background & ambient noise. Kindly confirm acceptance.	A correction factor of (+) 8 dBA is already specified in the technical specification. Bidder to refer clause 3.14.00, Page-83-84 of 101, Sub-Section-A-01 (Equipment Sizing Criteria), Part-B of Technical Specification. Bidder to comply with requirements of technical specification. Further, Bidder to refer amendment in Sub-Section-G-04 (Part-B) in this regard. Amendment No : A-PU-5
1134	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	3.02.00	PAGE 1 OF 7	SCREW AIR COMPRESSORS - DESIGN AND CONSTRUCTION	NTPC is requested to note that MOC of compressor component varies based on the sub-vendor standard design. Hence, we request NTPC to accept the MOC as per OEM standard design.	Any superior material & type (as per proven and relevant standard) of various components of screw compressor is also acceptable. Bidder to refer clause 3.02.06, Page-2 of 7, Sub-Section-A-16 (Compressed Air System), Part-B of Technical Specification.
1135	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	3.02.05	PAGE 2 OF 7	Bearings shall be high precision antifriction type IS- 25 Grade 84). The axial thrust load shall be minimized by dividing the axial load of compression on the main and auxiliary bearings through suitable balancing arrangement.	NTPC is requested to note that MOC of compressor component varies based on the sub-vendor standard design. Hence, we request NTPC to accept the MOC as per OEM standard design.	Any superior material & type (as per proven and relevant standard) of various components of screw compressor is also acceptable. Bidder to refer clause 3.02.06, Page-2 of 7, Sub-Section-A-16 (Compressed Air System), Part-B of Technical Specification.
1136	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	3.03.00	PAGE 2 OF 7	Gear Box Gears shall have a rating of AGMA-12 or equivalent.	NTPC is requested to note that Gear Box shall be as per OEM standard design. We request NTPC to kindly confirm the acceptance.	Any superior material & type (as per proven and relevant standard) of various components of screw compressor is also acceptable. Bidder to refer clause 3.02.06, Page-2 of 7, Sub-Section-A-16 (Compressed Air System), Part-B of Technical Specification.
1137	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	4.02.00	PAGE 2 OF 7	CENTRIFUGAL AIR COMPRESSORS- DESIGN AND CONSTRUCTION	NTPC is requested to note that MOC of compressor component varies based on the sub-vendor standard design. Hence, we request NTPC to accept the MOC as per OEM standard design.	Any superior material & type (as per proven and relevant standard) of various components of centrifugal compressor is also acceptable. Bidder to refer clause 4.02.05, Page-3 of 7, Sub-Section-A-16 (Compressed Air System), Part-B of Technical Specification.
1138	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	5.03.00	PAGE 3 OF 7	Coolers shall be provided with removable tube bundle design in accordance with design code TEMA Class C and shall be constructed with removable shell cover.	Bidder noted Shell and tube type Oil cooler arrangement. However, we would request NTPC to accept alternative arrangement of Plate type Oil Cooler with SS plate. In such case, Coolers shall be designed as per OEM standard. NTPC is requested to confirm acceptance.	Plate type oil coolers as per OEM standard & proven design are also acceptable.
1139	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	5.05.00	PAGE 3 OF 7	The coolers shall be designed for maximum heat load and atleast 10 percent design margin shall be provided in the number of tubes.	NTPC is requested to note that the margin on the tubes shall be as per OEM design requirement. NTPC is requested to confirm acceptance.	Bidder to comply the requirements of clause 5.05.00, Page-3 of 7, Sub-Section-A-16 (Compressed Air system) of Part-B of Technical Specification.
1140	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	5.06.00	PAGE 3 OF 7	Adequately sized safety valves shall be provided for both intercoolers and after coolers.	NTPC is requested to note that Centrifugal compressor OEM shall not provide the safety valves/relief valves for Intercoolers, Aftercoolers, oil coolers because the blow off valve is designed for the safety of the compressor & coolers. NTPC is requested to confirm acceptance.	Safety provisions as per manufacturer's standard & proven design are also acceptable.
1141	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	5.07.00	PAGE 3 OF 7	Moisture separator units shall be equipped with a level gauge glass with isolating cock.	NTPC is requested to note that it is not possible to provide level gauge glass with isolation cock due to space constrain. The same shall be provided as per OEM standard design. NTPC is requested to confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply with requirements of technical specification.

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1142	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	5.08.00	PAGE 3 OF 7	The drain trap shall be timer based.	NTPC is requested to note that automatic drain trap will be of level based type for Intercoolers & Aftercoolers of Compressor & Air Dryer as per OEM standard design. NTPC is requested to confirm acceptance.	Based on feedback from several NTPC stations, timer based drain trap has been envisaged. Bidder to comply with specification requirements.
1143	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	5.09.00	PAGE 3 OF 7	INTERCOOLER, AFTERCOOLER & OIL COOLERS (FOR SCREW/CENTRIFUGAL) Cooler shells, channels and covers shall be of carbon steel (SA 285 Gr C / SA 516 Gr 70). Tube sheet shall be of Brass or SS and the tubes shall be of Admiralty brass or Aluminium brass or Copper or SS 304.	NTPC is requested to note that MOC and all components within compressor skid shall be as per OEM standard practice. NTPC is requested to confirm acceptance.	Bidder to comply the requirements of technical specification. However, as per manufacturer's standard & proven design, any superior material to the material specified in technical specification shall also be acceptable.
1144	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	8.07.00	PAGE 5 OF 7	Each ADP shall be provided with two (2) numbers of 100 percent capacity pre-filters and two (2) numbers of 100 percent capacity after-filters at the upstream & downstream of towers.	NTPC is requested to note that Pre-filters & After Filters are not applicable for the Single drum HOC type dryer. Hence, the same will not be provided by Bidder in case single drum HOC type dryer provided. NTPC is requested to confirm acceptance.	Bidder`s understanding is correct. Bidder to refer clause 8.20.00, Page-5 of 7, Sub-Section-A-16 (Compressed Air System), Part-B of Technical Specification.
1145	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	8.07.00	PAGE 5 OF 7	The filtering media shall be of ceramic candle type elements designed to withstand atleast 50% of static pressure as differential pressure.	NTPC is requested to note that MOC and all components within Air dryer skid shall be as per OEM standards. NTPC is requested to confirm acceptance.	Bidder to comply the requirements of technical specification. However, as per manufacturer's standard & proven design, any superior material to the material specified in technical specification shall also be acceptable.
1146	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	8.09.00	PAGE 5 OF 7	Each electric motor driven blower (2x100% capacity for each ADP) shall be provided with individual dry type filters at inlet.	NTPC is requested to note that electric motor driven blower (2x100% capacity for each ADP) is not applicable or HOC type dryer. Hence, the same will not be supplied by Bidder in case HOC type dryer provided. NTPC is requested to confirm acceptance.	Bidder`s understanding is correct.
1147	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	8.14.00	PAGE 5 OF 7	Desiccant shall be activated alumina only and adsorption capacity and density of the same shall not be more than 8% and 900 kg/m3 respectively	NTPC is requested to note that dessicant activated alumina is not applicable for the offered Single Rotary Drum Type Dryer. OEM will offer Silica Gel as the Desiccant. NTPC is requested to confirm acceptance.	Based on past feedback, only activated alumina as desiccant has been envisaged. Bidder to comply the requirements of technical specification
1148	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	8.15.00	PAGE 5 OF 7	In case of Heat of compression type, adsorbers shall be sized so that even when the compressor is operating at part load, complete regeneration shall be achieved within the cycle time	NTPC is requested to note that Oil free screw compressors operates either at no load or full load. Hence, Part load operation of screw compressor is not applicable. NTPC is requested to confirm acceptance.	Bidder`s understanding is correct.
1149	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	9.00.00	PAGE 5 OF 7	INTERCONNECTING PIPING, FITTING AND VALVES	NTPC is requested to note that piping MOC within Compressor & dryer Skid shall be as per OEM standard design. Piping outside skid shall be as specification requirement. NTPC is requested to confirm acceptance.	Bidder to comply with requirements of technical specification. However, as per manufacturer's standard & proven design, any superior material to the material specified in technical specification shall also be acceptable.
1150	SECTION-VI, PART-B	SUB SECTION-A-16 - COMPRESSED AIR SYSTEM	12.00.00	PAGE 7 OF 7	PAINTING	NTPC is requested to note that painting for Compressor, Dryer & Receiver shall be as per OEM standard practise. NTPC is requested to confirm acceptance.	Bidder`s proposal is acceptable.
1151	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES	2.20.02	19 of 28	Platforms below APH outlet duct interconnections with common flue gas duct header and below expansion joints at the inlet of ESP. Platforms below expansion joints at the outlet of ESP.	NTPC is requested to note that tender specification requirement is not clear. Bidder will provide platforms for approach of dampers, access doors & Instrument tapings at ESP inlet and outlet ducting inline with executed NTPC project reference. NTPC is requested to confirm acceptance.	- The requirement of platforms at various locations have been clearly spelt out in the specified clause along with details in corresponding part-B chapter (SS-A-02). - Bidder to comply the specifications requirements.
1152	SECTION-VI, PART-A	SUB SECTION-IIA-02A SELECTIVE CATALYTIC REDUCTION SYSTEM	Annexure-SG-04	3 of 3	Scope of work for SCR/Hybrid ready plant shall include but not limited to the following: a) Duct up to Economiser Bypass Gate including Economiser Bypass Gate b) Duct up to SCR Inlet Gate including SCR Inlet Gate c) SCR Outlet Gate along with the duct from SCR Outlet Gate to APH inlet. ..... g) Ash Handling System for SCR hoppers	a), b) & c) Bidder proposes to provide blanking plates nearest to the tapping point of Economiser bypass duct, SCR inlet duct, SCR outlet duct connections without gates / dampers to avoid ash accumulation on the ducting inline with executed NTPC project reference. Bidder proposes "g) Ash Handling System for SCR hoppers (if required)." NTPC is requested to confirm acceptance.	Bidder to refer the "amendment" in this regard along with the sketch (provided for clarity purpose). **(Amendment No: A-SG-06)**
1153	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	4.01.01	85 of 101	a) Bottom Ash, Economizer, Eco outlet duct hopper (if applicable), APH, Duct hopper, SCR Hopper ash Handling System, system shall be kept ready for SCR hopper Ash Handling system.	a) Bottom Ash, Economizer, Eco outlet duct hopper (if applicable), APH, Duct hopper, SCR Hopper ash Handling System (if applicable), system shall be kept ready for SCR hopper Ash Handling system (if applicable). NTPC is requested to confirm acceptance.	Bidder to follow stipulations of Technical specification w.r.t SCR Hopper ash handling system.

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1154	SUB-SECTION-IIA-13 FO UNLOADING SYSTEM	SUB-SECTION-IIA-13 FO UNLOADING SYSTEM	2.01.03	2 of 2	(c) One (1) no. hand operated monorail Hoist of 2 tonnes capacity along with monorail in the fuel oil unloading pump shed.	As indicated in referred clauses, Bidder proposes to consider combined house for fuel oil unloading and pressurizing pumps with One (1) no. hand operated Hoist of 2 tonnes capacity along with monorail. NTPC is requested to confirm acceptance.	Confirmed.
	SECTION-VI, PART-B	SUB SECTION A-19 FO UNLOADING SYSTEM	10.02.00	9 of 9	the layout of building namely Pump House shall consider the following parameters. ..... (f) For handling of equipments in the pump house One (1) no. hand operated monorail Hoist of minimum 2 tonnes capacity alongwith monorail in the fuel oil unloading pump house shall be provided.		
	SECTION-VI, PART-A	SUB-SECTION-IID CIVIL WORKS	1.00.00	6 of 13	12. Civil, structural, architectural works for fuel oil unloading & storage system namely fuel oil unloading cum pressurizing pump house with switchgear room, MCC cum control room and Fuel oil unloading system civil works including Fuel Oil tanker unloading platform, foundation and dyke wall and all associated works for LDO storage tank.		
1155	SECTION-VI, PART-A	SUB-SECTION-IIA-17 MILL REJECT HANDLING SYSTEM	1.01.01	1 of 1	(c) Mechanical feeder including **Vibrating Feeder (if applicable)** for mill rejects below each pyrite hopper for feeding at consistent rate to the mill reject conveyor. (d) Metallic Belt conveyor/Chain Flight Conveyor along with drives, accessories, supports etc for conveying the mill rejects from the mills for each row of mills in each unit. The conveyor shall be fully enclosed.	As mentioned in Technical specification Section -VI / Part-A / SUB-SECTION-IIA-17 MILL REJECT HANDLING SYSTEM, clause 1.01.01, Bidder proposes to consider the requirement of Vibrating feeder if applicable as per the MRHS layout. NTPC is requested to confirm acceptance.	Noted. Applicability of the Vibrating feders, shall be finalised during detail engineering based on the type of system & MRS Layout.
	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	4.03.03	97 of 101	In case of mechanical conveying system, a **vibrating feeder** and metallic belt/chain flight conveyor carry mill reject from hopper to subsequent metallic /chain flight conveyor for further conveying to Bucket elevator for final storage at Silo.		
1156	SECTION-VI, PART-B	SUB-SECTION-A-22 MILL REJECT HANDLING SYSTEM	2.00.00	1 of 3	The discharged rejects from coal mill shall be collected in a dedicated pyrite hopper. Each pyrite hopper shall be provided with cylinder operated knife gate valves at inlet and outlet. Material from pyrite hoppers shall be removed by Mechanical conveyor and fed to main conveyor for further conveying. The main conveyor shall feed to a bucket elevator which in turn will feed to main storage silo.	NTPC is requested to note that the discharged rejects from coal mill shall be collected in a dedicated pyrite hopper. Each pyrite hopper shall be provided with cylinder operated knife gate valves at inlet and outlet. Material from pyrite hoppers shall be removed by Mechanical conveyor (if applicable) and fed to main conveyor for further conveying. The main conveyor shall feed to a bucket elevator which in turn will feed to main storage silo. NTPC is requested to confirm acceptance.	Bidder to comply stipulation of Technical specification

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1157	SECTION-VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	10.05.22	24 of 65	(a) Mill reject system shall automatically discharge the tramp iron and other non grindable material through an outlet connection at a suitable height (to be approved by Employer) to a **dense phase pneumatic conveying system.**	No specifications are provided regarding Pneumatic Mill reject system in Mill reject handling clause of SECTION-VI, PART-B / SUB-SECTION-A-22 MILL REJECT HANDLING SYSTEM and SECTION-VI, PART-A, SUB-SECTION–IIA-17 MILL REJECT HANDLING SYSTEM. Where as Dense phase pneumatic handling system indicated in 10.00.00 COAL PREPARATION AND FIRING SYSTEM clause. NTPC is requested to clarify the applicability of pneumatic mill reject handling system and provide necessary Technical specification requirements for the same if applicable.	Dense phase Pneumatic Mill reject system is not envisaged, bidder to provide Mechanical conveying system only. Further please refer amendment A-SG-33 against the clause 10.05.22 , A-02, part-B.
	SECTION-VI, PART-B	SUB-SECTION-A-22 MILL REJECT HANDLING SYSTEM	1.00.00	1 of 3	**Mechanical conveying system shall be employed for handling of the mill rejects.** Each mill reject discharge hopper shall be fitted with Feeder which shall discharge the mill rejects through Mechanical Conveyors to a storage Silo. The transmitting vessel shall operate on level probe mode with timer back-up.		
	SECTION-VI, PART-A	SUB-SECTION-IIA-17 MILL REJECT HANDLING SYSTEM	1.00.00	1 of 1	To handle the Mill Rejects on a continuous basis, the Bidder shall provide a Mill Reject Handling System. The Mill Reject Handling System shall comprise Mechanical Conveying system. The Rejects shall be stored in storage silo. From the storage silo, the Mill Rejects shall be disposed off in trucks.		
1158	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.15.03 (d)	13 of 28	(d) The coal mill shall be suitable for installation on RCC block type foundations and also at a suitable height in order that complete mill reject system as (described at sub section II A -17 of Part A) should be above the finished floor level of mill area or zero meter whichever is higher. Adequate maintenance space all around the mill zero meter have to be provided. **However, the non drive end part of bucket elevator may be allowed to placed at minus meter with adequate maintenance space.**	As mentioned in SECTION-VI, PART-A, SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP, clause 2.15.03 (d), Bidder will consider the Bucket elevator inside pit arrangement which is below the ground / finished floor level. NTPC is requested to confirm acceptance.	Non-drive end part of Bucket Elevator (for handling of Mill reject) may be kept below ground, but Sump pumps arrangement along with associated system shall be provided to discharge accumulated water from the Pit… Based on site feedback the clause 1.03.00 (58) had been kept in layout .Bidder to follow clause 1.03.00 of G-03 .
	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.03.00	13 of 15	58. All facilities of mill reject handling system specified elsewhere in the specification such as pump, tank, conveyor, piping etc shall be above ground level in boiler area.		
1159	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.03.00	06 of 15	Clear passage between two ESP 10m wide (Minimum)	NTPC is requested to note that considering restricted power block width and additional provisions given in the contract like CO2 capturing plant etc.. Bidder proposes min. 6m passage way in between two ESP. NTPC is requested to confirm acceptance.	Bidder to comply specification requirement as reduction in width may lead to erection and O&M considerations
1160	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.03.00	05 of 15	2. Distance between TG hall (C-row) column and first row of boiler columns - 12 M (Clear passage width will be minimum 10 m)	NTPC is requested to clarify that Bidder may consider Bunker emptying chute arrangement at the front side of boiler outside the D Grid up to ground level in case Front mill arrangement is selected. Kindly confirm acceptance. We would also like to be clarify that 10 m clear passage way and 7 m minimum head room may not be maintained at particular locations. NTPC is requested to confirm acceptance.	Bidder to comply specification requirements .
	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.03.00	07 of 15	18. Clear head room in Passage bay between TG hall and first row of boiler column i.e. CD bay - 7m (Except in control tower area, where the minimum head room shall be 5.0m)		
1161	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.03.00	06 of 15	14. Clear head room for material movement at ground level in Boiler Envelop - 5.0m (Minimum) (Unless specified Otherwise)	NTPC is requested to note that clear passage way with 5 m headroom has been considered for the areas identified for vehicle movement inside the boiler envelope for equipment maintenance. Remaining areas will be considered with piping, ducting and other boiler facilities based on system requirement. NTPC is requested to confirm acceptance.	Bidder understanding is correct . However , specification requirement shall be complied .
1162	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.03.00	09 of 15	37. Mill handling arrangement complete with crane and handling facilities along with removal space shall be provided. For side mill arrangement, one bay shall be provided as maintenance space on each side. For front mill and rear mill arrangement, one maintenance bay shall be provided on both side of mill bunker building. The mill maintenance bay shall be of minimum 7.0 m width.	NTPC is requested to note that considering the restricted power block area available in the GLP, Bidder proposes to maintain the mill maintenance space of 5.0 m width on both sides of Mill bay which is sufficient for handling of mill components. NTPC is requested to confirm acceptance.	Bidder to comply specifiication requirement .
1163	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.03.00	13 of 15	56. De-NOx System shall be located in boiler area. Bidder to bring out the details regarding De-NOx system and its location basis clearly in bidding documents.	NTPC is requested to note that the space indicated for ammonia storage is not sufficient. As per CCOE guide lines (30 m clear space to be maintained from ammonia storage tank edge to fencing), min. 75mx90m space is required considering ammonia tank size of similar capacity project. Considering SCR ready design, employer shall check the space provision in plant area based on the above minimum requirement.	Bidder to refer the revised GLP. at amendment D1-34.
	PART – E (TENDER DRAWINS) SECTION - VI	General Layout plan	4540-999-POC-F-001/Rev.0	10 of 35	Ammonia storage		

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1164	SECTION-VI, PART-B	SUB-SECTION – G-03 LAYOUT PHILOSOPHY	1.08.00	14 of 15	Bottom flange level of Air-Preheaters (Both Primary and Secondary) hoppers and additional hoppers (if any) shall be fixed based on dry ash evacuation system as offered by the bidder taking care of clear height requirement between Boiler & ESP and considering unobstructed route for Fly Ash conveying pipes avoiding vertical bends.	Bidder understands that mentioned requirement is for dry ash handling system for RAPH hopper. In case of coarse ash slurry system, Bidder will consider the hopper elevation based on the OEM recommendation of ash handling system vendor.	Bidder understanding is correct.However, in case of coarse ash slurry system also layout requirements to be fulfilled for accessibility and ease of O&M .
1165	SECTION-VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	10.05.30	25 of 65	The mill and its motor, gear box foundation bolts shall have adequate maintenance space and accessibility for tightening both from top and bottom side of foundation bolts. Alternatively, additional minimum four (04) numbers of extra foundation bolt shall be provided at extreme corners of base plate which can be used in case of failure of existing foundation bolts	As per Bidder's design, entire foundation bolts will be embedded inside the RCC with anchor frame arrangement. Further, foundation bolt sleeves will be filled with grouting and nuts at bottom side of the bolts will be tack welded. Hence, tightening of bolts from bottom side is not required. Bidder has followed the same design in all previous executed projects. Hence, additional bolts are not required. NTPC is requested to confirm acceptance.	The detailed aspects shall be discussed during detail engineering based on the specific type of sub-system/mill specific design.
1166	SECTION-VI, PART-B	SUB SECTION-A-16 COMPRESSED AIR SYSTEM	1.03.00	1 of 7	Unit Air receivers for instrument air system provided to cater the requirements of Instrument air requirement of respective SG (Steam generator) & auxiliaries and TG (Turbine Generator and its auxiliaries. The Unit Air receivers shall be located in TG building area.	As per mentioned PID, IA requirement for ash handling also taken from plant compressor header. Also no separate tapping is shown for TG area. NTPC is requested to please clarify.	IA requirement for ash handling system shall also be met by main plant instrument air compressors. Accordingly, dedicated air receivers have been shown for ash handling system in referred P&ID after taking tapping from main IA header. Further, there are already separate tapings shown in the referred P&ID from main IA header for TG area.
	SECTION-VI, PART-B	SUB SECTION-A-16 COMPRESSED AIR SYSTEM	1.04.00	1 of 7	Further, a dedicated air receiver shall be provided near Demineralising Plant to meet the instrument air requirement of Water Treatment plant. Dedicated air receivers shall be provided to meet the instrument air requirement of ash handling System.		
	TECH_SPECS_PART6	TECH_SPECS_PART6	4540-001-POM-A-047-Rev A	50 of 73	SCHEMATIC DRAWING OF COMPRESSED AIR SYSTEM		

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1167	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.24.03	21 of 28	Complete lifting tools and tackles. **Contractor shall provide motorized hoists and trolleys for all items requiring maintenance and weighing 500 kg or more.** All auxiliary structures, monorails, runway beams for all lifting tackles, hoists etc., are included in Contractor's scope of supply. Access ladders with suitable platform shall also be provided for approach to all motorized hoists/trolleys mounted on their runway beams for the maintenance of hoists/trolleys. Items weighing more than 50 kg and required to be replaced for maintenance shall be provided with manual hoists/trolleys with runway beams/supporting structure etc.	Bidder proposes to consider the type of hoists based on the hoist capacity as per the details mentioned in clause 2.00.00 of SECTION-VI, PART-B, SUB-SECTION-A-24, SERVICE ELEVATORS CRANE, HOIST & MONORAIL. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements as at Cl. 2.24.03, SS-IIA-01 for the scope of Steam Generator & Auxiliaries.
	SECTION-VI, PART-B	SUB-SECTION-A-24 SERVICE ELEVATORS CRANE, HOIST & MONORAIL	2.05.00	6 of 6	Suitable EOT Crane/HOT Crane/Monorail beams with hoists/Chain Pulley Blocks of adequate capacity, to meet the erection and maintenance requirements are to be provided by the vendor for the various areas/equipment. Some of the areas/equipment not covered by TG hall EOT cranes are indicated below. For balance areas/equipment, not listed hereinafter, the requirements of Specification shall be followed. **For the hoists with more than 2.0 ton lifting capacity or more than 10.0 M lift, motor operated hoist block for both long travel and lift shall be provided.** Other hoist blocks shall be of hand operated type for both travel and lift. However, all monorails coming out of the building shall be provided with electric hoist block, irrespective of load and lift.		
1168	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.30.00	24 of 28	Specific features catering to boiler reliability In order to ensure the trouble-free operation and maintenance of the Steam Generator & associated systems, following specific features, as a minimum, shall be provided. Any related provisioning w.r.t. monitoring and control of the healthiness of these sub-systems (especially S.N.- 5 to 8) shall be ensured by hooking the feedback to the control system. **1. Each area maintenance feasibility to be ensured in Steam Generator design including coil tube replacement and APH basket removal.** 2.	As per Tender Specification requirement, SCR ready design system has to be considered. Hence, considering future SCR installation and in order to provide aero dynamic layout of SCR connecting ducts like Eco-Bypass ducting, Vertical SCR inlet ducting, economiser coil tube replacement is not envisaged as per bidder experience in recent NTPC projects. NTPC is requested to confirm acceptance.	Bidder to comply with the specifications requirements.
1169	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.30.00	24 of 28	7. Boiler to be provided with vacuum cleaning system network to ensure proper hygiene. In this context portable system to capture the ash around the boiler peripheral surface shall be provided alongwith net worked transmission of captured ash to a common location. Following specific elevations of Boiler requiring installation of vacuum cleaning arrangement in Boiler Front, Rear, LHS and RHS are also to be covered other than required areas: 1) Penthouse Floor 2) Gooseneck area floor covering both first pass and backpass. 3) Boiler Scaffolding door floor covering both first pass and backpass 4) Top wall blower tier floor covering both first pass and backpass 5) Top burner top floor covering both first pass and backpass 6) Burner bottom floor covering both first pass and backpass 7) S Panel (approx.8.5 to 9M)	Bidder will consider open grating for Boiler platforms at various elevations except oil prone areas in which chequered plates have been considered as per Tender specification. Hence, possibility of ash accumulation on the platforms around boiler peripheral is very less. Bidder presumes that vacuum cleaning system for ash removal on platforms is not required. NTPC is requested to confirm acceptance.	Bidder to comply with the installation of vacuum cleaning arrangements as per the specifications requirement.
1170	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	7.00.00	28 of 28	1. Boiler enclosure shall be covered with colour coated metal sheeting. The metal sheet shall display a visually appealing painting (which will be informed later) on outside. The height covered for sheeting will be from boiler roof to Penthouse and **15 m below from penthouse**. During Overhauling or repair, the covering should not restrict material movement from Top and Sides of the boiler. Accordingly, removable type sheet shall be provided for such location. Necessary approach and lugs shall be provided for this purpose. 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.	1) We would like to clarify that Boiler enclosure shall be covered with colour coated metal sheeting. The metal sheet shall display a visually appealing painting (which will be informed later) on outside. The height covered for sheeting will be from boiler roof to Penthouse and **15 m below from penthouse top**." ..... NTPC is requested to confirm acceptance. 2. Provision for ventilators / glazed windows shall be made as per functional requirements. The boiler enclosure shall have **sloped roof** with access through staircase / lift. Bidder proposes Sloped roof for ease of rain water draining purpose.	Refer amendment A-SG-11 in this regard.

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1171	SECTION-VI, PART-A	SUB SECTION A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	7.00.00	Pg 27 of 28	Architectural Features for Steam Generator Enclosure: The boiler enclosure shall have **flat roof** with access through staircase / lift.	Architectural Features for Steam Generator Enclosure: NTPC may note that, required slope for rain water drain cannot be avoided. Hence as per bidder understanding, The boiler enclosure shall have flat roof with necessary slope for rain water drain. Please confirm the bidder understanding.	Confirmed.
1172	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.18.00 / (8)	PAGE 17 OF 28	One (1) drain oil tank of 6m³ capacity with one oil transfer pump with motor, duplex filter at suction and other accessories for each Steam Generator to transfer drain oil from steam generator area to LDO storage tank(s). Control of the same shall be implemented in SG C&I system.	As different tender clauses and tender P&IDs differs on Drain oil tank capacity, no of drain pumps, Drain pump capacity and type of pump (Vertical / horizontal pumps) , and filters, Bidder proposes the following : a) Pump house is common for both unloading and pressurising pumps . b) One no. of common drain oil tank(Rectangular type) at FOUPH having effective capacity of 10Cu.m of dimension 2.5m-wide x 2m-depth x 2 m height . and 2 no's 10 m3/hr (1 working + 1 stand by) pumps of Vertical single screw type. c) One no 6 Cu.m capacity drain tank each for SG at boiler area with 1 no each / SG with one no Horizontal single screw pump with suction filters . pump capacity will be 4Cu.m/hr . NTPC is requested to confirm acceptance.	a) Pump house may be common for unloading and pressurising pumps b) Common Drain oil tank with effective capacity of 10Cu.m of dimension 2.5m-wide x 2m-depth x 2 m height . and 2 no's 10 m3/hr (1 working + 1 stand by) pumps for common Pump House may be accepted."
	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.18.00 / (9)	PAGE 18 OF 28	One (1) drain oil tank common for two (02) steam generator units in pressurizing pump house area having 10m3 capacity and one oil transfer pump with motor, duplex filter at suction and other accessories to transfer drain oil from pump house to LDO storage tanks. Control of the same shall be implemented in FOPH control system.		
	SECTION-VI, PART-A	SUB-SECTION-IIA-13 FO Unloading system	2.01.01 / (c)	PAGE 1 OF 2	One (1) number drain oil tank of capacity six (6) cu.m complete with accessories and instrumentation.		
	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	11.04.01	PAGE 33 OF 65	Drain oil tank(s) design/construction shall comply with following requirements-: (iii) Tank capacity -: 6m3 (each) (min. effective volume)in SG area and 10m3 (min. effective volume) in FO pressurizing pump house area		
	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	11.04.01	PAGE 33 OF 65	Drain oil tank(s) design/construction shall comply with following requirements-: (iv) Dimensions 3M x 2M x 1M, 2.5MX2MX2M		
	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	1.02.00	PAGE 1 OF 9	One drain oil tank shall be furnished to collect the oil drained from various pipes and from the equipments in the unloading pump house. The tank shall conform to IS: 800. The tank shall have accessories as indicated in tender drawing and shall have minimum liquid holding capacity of 6 m3. The technical details and design specification for tank shall be as per Table -M1 appended to this Section.		
	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	4.01.01	PAGE 4 OF 9	(B) DRAIN OIL TANK-: Nominal capacity of tank - 6 m3 Size - 3 m x 1.5 m x 1.5 m (Minimum Dimensions to be adhered to)		
	SECTION - VI PART – E (TENDER DRAWINS)	P&I Diagram for LDO System	DRG.NO. 4540-001-POM-A-032	-	DRAIN OIL TANK-: CAP. 6 m3 1.5 m x 1.5 m x 3 m		
	SECTION-VI, PART-A	SUB-SECTION-IIA-13 FO Unloading system	2.01.02	PAGE 2 OF 2	b) Two (2) nos. LDO drain pumps-set each of capacity 10 cu.m/hr. complete with all the accessories of drive and mounting as specified.		
	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	11.03.04	PAGE 30 OF 65	Drain Oil Pumps -: (v) No. of pumps - 3 (vi) Capacity of each pump - 4M3/hr		
	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	8.00.00	PAGE 7 OF 9	Drain Oil Pumps -: 6. No. of pumps - 2 7. Rated capacity in design viscosity range-10 m3/hr		
	SECTION - VI PART – E (TENDER DRAWINS)	Fuel Oil Scheme	DRG.NO. 4540-001-POM-A-017	-	1 Nos of Horizontal Drain Oil Pump shown for Pressurizing Pump House Area		
	SECTION - VI PART – E (TENDER DRAWINS)	P&I Diagram for LDO System	DRG.NO. 4540-001-POM-A-032	-	DRAIN OIL PUMP VERTICAL, SINGLE SCREW 2 Nos (1 W + 1 S) CAP. 10 m3/HR.		
1173	SECTION-VI, PART-A	SUB-SECTION-IIA-13 FO Unloading system	1.06.00	PAGE 1 OF 2	A LDO unloading header with five (05) Numbers hose connections for connecting neoprene rubber flexible hoses (05 nos.) to Road tankers shall be provided. One spare connection has been kept in the unloading header.	NTPC is requested to confirm whether existing Unloading header to be used or the same to be considered in bidder scope. NTPC is requested to confirm acceptance.	Bidder to comply specification requirement w.r.t scope of unloading hearder.Existing header shall not be used.
1174	SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.08.00 A)	PAGE 12 OF 38	1. Coal compartment assembly - 2 sets** 5. Coal nozzle castings - 1 set** 6. Adjustable coal nozzle tips - 1 set**	S.No. 1 - Coal Compartment assembly contains Coal Nozzle castings & Adjustable coal nozzle tips & the same is being repeated in S.No. 5 & 6. Bidder proposes to remove S.no. 5 & 6 to avoid repetition.	Such detailed aspects shall be discussed during detail engineering based on the specific type of sub-system/ burner specific design offered in line with the specifications.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1175	SECTION-VI, PART-B	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA	4.05.03	PAGE 101 OF 101	Unloading LDO from minimum five (05) nos. road tankers shall be kept. The Oil from tankers shall be unloaded to unloading header by gravity which shall then be pumped to LDO storage tanks through existing unloading pumps.	NTPC is requested to confirm whether existing pump to be used or new pumps to be supplied for Unloading LDO.	Existing pumps shall not be used.
	SECTION - VI PART – E (TENDER DRAWINS)	P&I Diagram for LDO System	DRG.NO. 4540-001-POM-A-032	-	LDO UNLOADING PUMPS CAP. 50 m3/hr. 2 NOS. (1 W + 1 S)		
1176	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	5.01.04	PAGE 4 OF 9	For sizes 400 NB and below the pipe material shall be conforming to API-5L Gr.B ERW	NTPC is requested to confirm whether the pipe material - SA 106 Gr B/C is acceptable.	Bidder to comply specification requirement w.r.t. pipe material.
1177	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	6.04.02	PAGE 5 OF 9	Gate valves for sizes up to and including 40 NB shall be of class 800, forged carbon steel valves with solid wedge, OS & Y rising stem, bolted bonnet with deep stuffing box and lantern ring. Trim shall be of 13% chrome steel. Body material shall conform to ASTM A 105 and ends shall be socket welded.	NTPC is requested to note that Deep Stuffing box and lantern ring are provided for critical applications only as per the feedback received from vendors. Hence, Bidder proposes to remove the requirement for fuel oil valves. Kindly confirm acceptance.	Noted. Shall be finalised during detail engineering.
	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	6.05.02	PAGE 6 OF 9	Globe valves for sizes up to and including 40 NB shall be of class 800 forged carbon steel valves with plug type disc. Other particulars shall be same as 6.04.02 above.		
1178	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	6.00.00	PAGE 27 OF 28	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..	NTPC is requested to clarify the extent of future provision for methanol firing as per mentioned below: 1. Whether LDO fuel provision will be kept along with Methanol or LDO firing system will be completely removed while implementing methanol firing system. 2.Whether all the LDO burners will be converted for methanol firing or some of LDO burner elevation will remain for LDO firing. 3. Kindly confirm whether methanol is envisaged as start-up fuel or not. Also bidder understands that LDO firing system shall be designed without considering any requirements related to Methanol firing. Igniters, flame-scanners, all valves and instruments at FOPH pumping location and boiler firing area shall be designed only for LDO system. NTPC is requested to confirm that both LDO tanks to be converted to methanol tank or any one of the tanks will be converted for methanol storage. LDO pumps are not envisaged to handle Methanol and space at FOPH can be considered for Pumps, piping and other system. NTPC is requested to furnish technical requirement for estimating space provision.	Bidder to note that the requirement of methanol is for future firing in the boilers and accordingly the provisions are to be for ready plant for methanol firing. The existing specified provisions for entire LDO system are standalone (which are to be complied) and independent of the methanol firing (which is envisaged for future).
	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	8.00.00	PAGE 7 OF 9	LDO Unloading Pumps & LDO Transfer pumps -: 2. Type of fuel to be handled - LDO/Methanol		
1179	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	8.00.00	PAGE 7 OF 9	Sump Pumps -: 1.type of pump : vertical centrifugal submersible type . 7. Rated capacity in design viscosity range-10 m3/hr	NTPC is requested to note that as per centrifugal pumps vendor's feedback, Pump discharge flow rate is too less to meet the discharge head requirement mentioned in tech spec (50 MLC) . Increasing discharge flow capacity also is not recommended , considering pit size and operating time period of pumps. Hence, bidder proposes vertical single screw pumps for the application. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements as at Cl. 11.03.04, SS-A-02, part-B for the scope of Steam Generator & Auxiliaries.
	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	11.03.04	PAGE 31 OF 65	Sump pump -: (vi) Capacity of each pump - 10M3/hr (viii) Pump discharge head-: 50 MLC (minimum) or suiting site requirements whichever is higher.		
1180	SECTION-VI, PART-A	SUB-SECTION-IIA-13 FO Unloading system	1.04.00	PAGE 1 OF 2	One (1) number day oil tank of capacity 100 cu. meter for auxiliary boiler shall be provided. The day oil tank shall be fed from a separate set of transfer pumps and pipe line.	NTPC is requested to note that FOPH installation and auxiliary boiler are near to each other as shown in the GLP (9-F). Bidder proposes to remove day oil tank. Pump will be provided in pumphouse area suitable for oil firing system Aux. boiler. NTPC is requested to confirm acceptance.	Confirmed.
	PART – E (TENDER DRAWINS) SECTION - VI GENERAL LAYOUT PLAN	GENERAL LAYOUT PLAN	DRG. NO. 4540-999-POC-F-001	-	FOPH & Auxiliary boiler location		
1181	SECTION-VI, PART-B	SUB-SECTION-D-1-6 CIVIL WORKS DESIGN CRITERIA	6.04.03	PAGE 22 OF 24	Painting of Steel Surfaces (Other Than Those Embedded In Concrete)- CORROSSIVITY CATEGORY: C3 & C5	NTPC is requested to confirm the Corrosive Category (C3 or C5) which is to be followed for Steel Structural items as the same is not clearly indicated as per the mentioned clause.	C3 - Bidder to refer Cl - 1.00.02 of Sub Section-IID, SectionVI, Part-A of Technical Specifications.

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1182	SECTION – VI, PART-A	SUB-SECTION-IID CIVIL WORKS	1.00.00 / 12.	PAGE 6 of 13	Civil, structural, architectural works for fuel oil unloading & storage system namely fuel oil unloading cum pressurizing pump house with switchgear room, MCC cum control room and Fuel oil unloading system civil works including Fuel Oil tanker unloading platform, foundation and dyke wall and all associated works for LDO storage tank.	Bidder proposes combined building for Unloading and Pressurising pumps house. NTPC is requested to confirm acceptance.	Confirmed
	PART – E (TENDER DRAWINS) SECTION - VI GENERAL LAYOUT PLAN	GENERAL LAYOUT PLAN	DRG. NO. 4540-999-POC-F-001		GLP (9-F)		
1183	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	11.03.04	PAGE 31 OF 65	Design/Sizing of various pump shall be based on following Criteria-: (iv) Materials (a) Casing : Close grained Cast Iron/ Carbon Steel, as per the manufacturer's standard practice. (b) Shaft : Carbon steel	NTPC is requested to note that the MOC of casing and pump internal shall be as per vendor manufacturing standard for vertical pumps (Drain oil pump, dirty oil pump & sump pump) applicable in Fuel oil system. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements as at Cl. 11.03.04, SS-A-02, part-B for the scope of Steam Generator & Auxiliaries.
	SECTION-VI, Part-B	SUB SECTION A-19 FO UNLOADING SYSTEM	8.00.00	PAGE 7 OF 9	PUMPS (As applicable) 13. Materials of construction a. Casing b. Rotor/Impeller c. Shaft d. Pump Motor Base plate		
1184	SECTION – VI, PART-B	SUB SECTION-A-03 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	13.01.05	38 OF 65	The ducts shall be of rectangular cross-section and shall be of all welded construction. Circular ducts are not acceptable. Following requirements shall be complied with: (a) Min. 8 mm thick steel plates for gas ducts upto ESP and min 6mm thick steel plates for gas duct after ESP. (b) Min. 5 mm thick steel plates for air ducts.	Based on bidder's experience and proven practice, Bidder proposes to use Min. 6 mm thick steel plates for flue gas ducts in line with previous NTPC executed project. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements.
1185	SECTION – VI, PART-B	SUB SECTION-A-03 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	13.02.05	42 OF 65	13.02.01(b), (g) & (i) ,gas tightness efficiency without seal air fan is 99.80% & with seal air 100%	These clauses are not inline. Bidder proposes to follow the requirement as per clause no 13.02.01(b), (g) & (i), gas tightness efficiency without seal air fan is 99.80% & with seal air 100%. NTPC is requested to confirm acceptance.	The requirements at two different referred clauses are specific to corresponding area gate/damper. Bidder to comply the specifications requirements.
	SECTION – VI, PART-B	SUB-SECTION-A-04 SELECTIVE CATALYTIC REDUCTION	5.11.00	10 OF 22	The motor operated gates shall be guillotine gate type and shall be provided with 2x100% pressurization fans to achieve 100% sealing efficiency.Leak tightness efficiency of gate on flow shall be 99.95%.		
1186	SECTION – VI, PART-B	SUB-SECTION-A-04 SELECTIVE CATALYTIC REDUCTION	5.11.00	10 OF 22	Alternatively, Bidder can provide Biplane damper with sealing arrangement at SCR outlet duct as per its standard and proven practice Pneumatic operated control damper and motor operated gate shall be provided in economizer bypass duct for regulation and isolation of economizer bypass flow. The motor operated gates shall be guillotine gate type and shall be provided with 2x100% pressurization fans to achieve 100% sealing efficiency. Leak tightness efficiency of gate on flow shall be 99.95%.	NTPC is requested to note that there is discrepancy in the clause highlighted for Biplane damper. We understand that the specification requirement mentioned in clause no 13.02.02 &13.02.05 will be followed. NTPC is requested to confirm acceptance.	Bidder to note that for SCR related dampers the details for performance are to be referred from the corresponding SCR chapter.
	SECTION – VI, PART-B	SUB SECTION-A-03 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	13.02.02 &13.02.05	PAGE 42 OF 65	ii)As an alternate to the damper at SCR outlet duct as inClause 13.02.01 (h), Bidder can provide Bi- planedamper with sealing arrangement at SCR outlet duct asper its standard and proven practice.		
1187	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	13.01.06	39 OF 65	Material of construction : (iii) Pipe struts, trusses, bracing : ASTM A 53 or equivalent seamless steel pipe.	NTPC is requested to note that Material of construction shall be as per IS standards: (iii) Pipe struts, trusses, bracing : IS 1161 /ASTM A 106 NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements. Further, material conforming to equivalent Indian standard shall be acceptable. Refer amendment in this regard.

Damper at locations	Min. Guaranteed Gas tightness Efficiency	
As per Clause No.	Without Seal Air	With Seal Air**
13.02.01 (e), 13.02.02(ii) & 13.02.02 (iii)	99.50%	100%

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1188	SECTION – VI, PART-B ANNEXURE-SS1 SELECTIVE CATALYTIC REDUCTION	ANNEXURE-SS1 SELECTIVE CATALYTIC REDUCTION	4.02.01	4 OF 22	The reactor casing shall be fabricated from all welded reinforced, 6 mm minimum thickness, carbon steel plates conforming to ASTM A36.	NTPC is requested to note that the reactor casing shall be fabricated from all welded reinforced, 6 mm minimum thickness, carbon steel plates conforming to ASTM A36 or equivalent grade. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements. Further, material conforming to equivalent Indian standard shall be acceptable. Refer amendment in this regard.
1189	SECTION – VI, PART-B ANNEXURE-SS1 SELECTIVE CATALYTIC REDUCTION	ANNEXURE-SS1 SELECTIVE CATALYTIC REDUCTION	4.02.06	5 OF 22	Each catalyst elevation shall be provided with grated platform inside the reactor housing to support and place the catalyst modules. The opening of the grating shall be sufficiently large to prevent ash pluggage / accumulation. The elevation of platform outside the reactor shall match the elevation of inside the reactor platform to facilitate the easy removal/placement of catalyst modules.	NTPC is requested to note that based on bidder's experience and proven practice, the requirement of grated platform inside the reactor housing to support and place the catalyst modules is not envisaged. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements. Further detailed aspects shall be reviewed during detail engineering.
1190	Sec VI Part-A	Sub Sec- IB Project Information	Table 1-A	8 of 15	Ulitmate Analysis	Following fuel properties are not specified in the specification and same is required for the design/selection of Steam generator & Auxiliary equipment. 1. Arsenic 2. Chlorine 3. Fluorine NTPC is requested to provide above inputs.	Bidder to take these value as on conservative side based on the type of coal as furnsihed.
1191	SECTION – VI, PART-A	SUB-SECTION-IB PROJECT INFORMATION	Annexure-IV-6	page 12 of 15	METHANOL CHARACTERSTICS	As per specification, Methanol firing will be implicated in future and not now. We understand that the analysis specified here for bidder information only. NTPC is requested to confirm acceptance.	Bidder's understanding is correct. However, the design of Steam generator & related auxiliaries shall factor-in such provisioning.
1192	SECTION – VI, PART-A	SUB-SECTION-IB PROJECT INFORMATION	Annexure-IV-7 (A)	page 13 of 15	Torrefied Pellet	NTPC is requested to note that HGI of the biomass (Torrefied pellet) is not furnished in the specification. NTPC is requested to furnish the same.	Bidder to refer the type of biomass & its constituents along with the properties as specified towards deriving the HGI value. Further, ISO 5074 or equivalent method may be referred for testing standard.
1193	SECTION – VI, PART-A	SUB-SECTION-IB PROJECT INFORMATION	Annexure-IV-7 (A)	page 13 of 15	Torrefied Pellet	NTPC is requested to furnish few photograph and sample of Torrefied Bio-mass for further study by Bidder. In addition to this, NTPC is requested to furnish the manufacturing process of biomass torrefied pellet.	Bidder to refer the type of biomass & its constituents along with the properties. Further, the process parameters are given in the corresonding Annexures.
1194	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.13.01	page 9 of 28	(7) Stall detection probe along with stall duration integrator	NTPC is requested to note that there is no specific hardware for such application and hence same will be implemented in DCS. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements.
	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.13.02	page 9 of 28	(7) Stall detection probe along with stall duration integrator		
	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.15.04	29 OF 65	(7) Stall detection probe along with stall duration integrator		
1195	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	2.14.01 (11)	10 of 28	On-Load High Pressure Water Washing System with pump, piping and nozzle etc. at cold end only.	NTPC is requested to note that SRDS is implemented for this project. High pressure washing pump is required for SCR. Hence, high pressure washing pump will not be supplied. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements. Further detailed aspects shall be reviewed during detail engineering based on specific equipment selected design.
1196	SECTION-VI, PART-A	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	6.00.00	27 of 28	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.	Bidder understands that the provision for ready plant for methanol firing is for co-firing fuel/support fuel and not for the start up fuel. NTPC may clearly state that once the methanol co-firing fuel / support fuel starts, there is no LDO firing.	Bidder to note that the requirement of methanol is for futur firing in the boilers and accordingly the provisions are to be for ready plant for methanol firing. The existing specified provisions for entire LDO system are to be complied with which are standalone and independent of the methanol firing as envisaged for future.
1197	SECTION-VI, PART-A	SUB SECTION-IIA-02A SELECTIVE CATALYTIC REDUCTION SYSTEM	2.00.00	2 of 3	The above is described towards only design, engineering, of the complete system while further manufacturing, supply, erection and commissioning scope shall only be limited to the works required for SCR ready/Hybrid ready plant as per annexure SG-04 as attached.	NTPC is requested to note that the design, engineering of the complete system will be carried out by bidder to an extend possible. However, equipment which are supplied by Sub-Vendor will be excluded from bidder scope. NTPC is requested to confirm acceptance.	Bidder to refer the scope as defined in the specifications. Accordingly, sub-vendor supplied equipment's design & engineering as per package scope is included in bidder's scope. Bidder to comply the specifications requirements.

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1198	SECTION-VI, PART-A	SUB SECTION-IIA-02A SELECTIVE CATALYTIC REDUCTION SYSTEM	Annexure-SG-04	3 of 3	Contractor shall be required to share the complete design and engineering data/drawings/other inputs to enable the owner to procure the SCR reactors/Hybrid System and Ammonia/Urea Unloading, Storage, Handling and Injection system.	NTPC is requested to note that Ammonia / Urea Unloading, Storage, Handling system is Sub-Vendor item and hence the design, engineering of Ammonia / Urea Unloading, Storage, Handling system is excluded from bidder scope. NTPC is requested to confirm acceptance.	**Bidder to comply with specification requirements.**
1199	SECTION-VI, PART-A	SUB-SECTION-IIA-17 MILL REJECT HANDLING SYSTEM	1.01.02	2 OF 2	1.01.02 Mechanical conveying system:	This section is repeat of clause no 1.01.02 of page 1 of 2. Please delete this section	**1.01.02 may be ignored as it is repeat clause.**
1200	SECTION-VI, PART-A	SUB-SECTION-IV FUNCTIONAL GUARANTEES	1.00.01	2 OF 73	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. The contractor shall submit the detailed test evaluation report of Performance test results to Employer promptly but not later than 7 days from the date of conductance of Performance test.	NTPC is requested to note that there are several manual input like ambient condition (temperature and relative humidity), coal analysis, UBC, flue gas outlet temperature (grid result), flue gas analysis (grid result) etc. to calculate boiler efficiency during PG test. Hence NTPC is requested to clarify this requirement.	The requirement is specified towards caculation of the results in auto mode inorder to ensure accurate results. Further, bidder to refer complete clause wherein manual entry is referred.
1201	SECTION-VI, PART-A	SUB-SECTION-IV FUNCTIONAL GUARANTEES	1.00.01	5 OF 73	GUARANTEES UNDER CATEGORY - I xiii) LD for 0.1% increase in APH Leakage against the shortfall (as per part-B guarantee condition description).	NTPC is requested to note that as per contract, the boiler efficiency will be calculated as per EN_12952-15-Acceptance tests which include the air heater leakage. It means that LD will be applicable twice for boiler efficiency (plant heat rate) as well as separately for APH leakage. Hence, we request NTPC to remove the APH leakage from Category-I guarantee and remove the LD.	Bidder to comply the specifications requirements.
	SECTION-VI, PART-A	SUB-SECTION-IV FUNCTIONAL GUARANTEES	1.00.02(xiii)	7 OF 73	(xiii) LD for 0.1% increase in APH Leakage (as per part-B guarantee condition description) US $ 129864 (US Dollar One Lac Twenty Nine Thousand Eight Hundred and Sixty Four only) for every 0.1% point increase from the guaranteed or specified		
1202	SECTION-VI, PART-A	SUB-SECTION-IV FUNCTIONAL GUARANTEES	1.01.03.02	11 of 73	55% TMCR - 115 degree C or as predicted by the Bidder whichever is higher	Bidder understands that the flue gas temperature at 55% TMCR is 115 degree C or as predicted by the Bidder whichever is higher as per SCR ready design system and hence without SCR operation. NTPC is requested to confirm the same.	Confirmed.
1203	SECTION - VI PART-B	SUB SECTION G-04 - STANDARD PG TEST PROCEDURE		5 of 224	Note - Boiler efficiency & Turbine cycle heat rate will be determined during SG PG Test and TG PG Test respectively	Boiler efficiency test method is not furnished here. NTPC is requested to furnish the Boiler efficiency test procedure.	The aspects related to boiler efficiency test are provided in the specifications. Further the detailed boiler efficiency test procedure shall finalized during detail engineering.
1204	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.04.00 (a,b)	3 of 101	Step load change: Minimum ± 10% per minute	Bidder understand there is some typo error, The Step load change : Minimum ± 10% and not per minute. NTPC is requested to confirm acceptance.	Refer amendment A-SG-14 in this regard.
1205	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.02 (e) (v)	PAGE 7 OF 101	Upto & above 610 degree Celsius: Austenitic stainless steel, SA-213 UNS S30432 Shot Peened, TP347H FG orapproved equivalent.	As per bidder experience, all SA-213 UNS S30432 material needs not be shot peened. The SA-213 UNS S30432 shot peened material will be used at SH and final RH out let where the high steam temperature is experienced. The length of the shot peened SA-213 UNS S30432 will be decided by bidder during detail engineering stage based on bidder experience. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements.
1206	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.06.02 (iv)	10 of 101	Load Range - 60% BMCR with design / best / worst coal and max moisture ….....	Since all axial fans are designed for 60% TMCR, the RAPH will be also designed for 60% TMCR operating condition. NTPC is requested to confirm acceptance.	Pl. refer amendment A-SG-15 in this regard.
	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.06.02 (6)	10 of 101	1 RPM or actual whichever is higher RAPH rotation speed	NTPC is requested to note that it is understood from the specification that NTPC intends to operate RAPH at lower speed below 1 rpm. We would like to clarify that the RAPH speed will be decided by OEM as per standard design.	Bidder to note that the intent is to select the optimum speed for maximizing heat recovery. Bidder to comply the specifications requirements.

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1207	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	9.01.03	17 OF 65	(iv) One of the drive of each of the air preheater shall be provided with VFD for speed regulation from full design rotational speed or 1 rpm, whichever is higher, to about 0.3 rpm. The Contractor shall carry out a test after commissioning to detect the optimum speed of the air preheater to maximize gas temperature reduction at its gas side outlet. Optimum rotation speed for 100% TMCR, 80 % TMCR and 60% TMCR unit loads shall be recommended by the contractor based on such tests. The test shall be made by incrementally reducing the speed in steps of 0.1 rpm from its present maximum operating speed onto the minimum specified speed. Suitable soaking time at each speed step shall be given during the test before recording the temperatures and other performance parameters. Test procedure shall be furnished during detail engineering.	design. NTPC is requested to confirm acceptance.	
1208	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.07.02	12 of 101	Design SCAPH and connected air ducts to handle flows corresponding to 60% BMCR loads with one of the two streams working…	NTPC is requested to note that all axial fans are designed for 60% TMCR. The SCAPH will be designed for 60% TMCR operating condition. NTPC is requested to confirm acceptance.	Pl. refer amendment A-SG-16 in this regard.
1209	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.13.03	18 of 101	The fans shall also fulfill following sizing criteria in addition to those mentioned at Clause 1.05.13.02 above Each fan to be sized for 50% TMCR flow calculated taking into following conditions occurring together. FD ID (i) Margin over 100% BMCR flow: 20% 20% (ii) Margin over 100% BMCR pressure requirement: 44% 44%	NTPC is requested to note that discrepancy is observed for fan sizing and it's operating condition. In this clause, it is indicated that each fan will be sized for 50% TMCR flow calculated taking into the conditions occurring together. However, it is also indicated below that margin is required at 100% BMCR. As per bidder understanding, it should be 100% TMCR and not 100% BMCR. NTPC is requested to confirm acceptance.	Refer amendment A-SG-17 in this regard.
1210	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.19.01	23 of 101	Minimum catalyst volume per reactor per layer(m2) with plugging margin: 150	As per bidder experience, the requirement of minimum catalyst volume per reactor per layer(m2) with plugging margin specified here is higher. As per NTPC previous tender and as per bidder experience in NTPC executed project, minimum catalyst volume per reactor per layer(m2) with plugging margin is 120 m2. NTPC is requested to revise the same.	Bidder to comply the specifications requirements.
1211	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.19.02	24 of 101	SCR efficiency for control of NOx emmission (%): 92	As per NTPC previous tenders and as per bidder experience in NTPC executed project, the SCR efficiency at guarantee point is 80%. Bidder proposes the same for Talcher project also. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements.
1212	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.19.02	24 of 101	Max flue gas pressure drop across SCR system (mmwc): 150	NTPC is requested to note that discrepancy is observed in the SCR pressure drop specified in the specification. SCR pressure drop as specified in the clause no 1.05.13.02 shall be considered for SCR design. NTPC is requested to confirm acceptance.	Refer amendment A-SG-34 in this regard.
	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.13.02 (vi)	PAGE 17 OF 101	Pressure drop through SCR System 100 mm WC or actual whichever is higher		
1213	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.19.03	25 of 101	Height of catalyst module (maximum)(mm): 1300	NTPC is requested to note that the catalyst height of 1300 mm is not sufficient for the minimum catalyst volume per reactor per layer(m2) with plugging margin: 150. Hence, NTPC is requested to revise the catalyst volume per reactor per layer(m2) with plugging margin from 150 to 120m2.	Refer amendment A-SG-18 in this regard.
	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.19.01	23 of 101	Minimum catalyst volume per reactor per layer(m2) with plugging margin: 150		
1214	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.19.04	26 of 101	1.05.19.04 Ammonia Unloading, Storage & Handling System (Common for all two units):	NTPC is requested to note that the ammonia handling system is turnkey package for bidder. Since SRDS is proposed for Talcher project, design and engineering of the sub-vendor package is not possible and hence excluded from bidder scope of work. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements.
1215	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	1.05.19.04	26 of 101	Capacity of each compressor Min 1100 LPM, Reciprocating, oil free type	There are limitation on the compressor capacity for Ammonia application. Hence, NTPC is requested to revise the compressor capacity to min 560 LPM inline with statutory requirement. NTPC is requested to confirm acceptance.	**The capacity constraints, if any, on account of statutory requirement shall be considered.**

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1216	SECTION - VI PART-B	SUB SECTION A-01 - EQUIPMENT SIZING CRITERIA	3.14.02.01	82 of 101	5. For each Unit of Ash handling system, Silo Utility & its auxiliaries (Continuous): E	NTPC is requested to note that the instrument air for Ash handling system will be taken from Ash handling compressor and not from the plant compressor as followed in NTPC executed projects. The requirement specified here for instrument compressor sizing will not be considered by bidder. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements.
1217	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	1.00.00	1 OF 65	The specified requirements shall be complied for the most stringent conditions resulting either from the range of coals (design/worst/best/adequacy) specified or from the range of operating conditions specified (like 100% BMCR or HP Heaters out of operation etc.), or from both occurring simultaneously, unless specifically mentioned otherwise by the Employer.	a) The requirement of Adequacy coal operation is deleted in the clause no. 1.01.01. However this requirement of adequacy coal is not deleted from other clause in tender specification. Hence, we request NTPC to kindly issue amendment to inform deletion of adequacy coal requirement from other clauses of tender specification. b) Bidder has observed discrepancy in the steam generator and it's auxiliary sizing. We understand that the steam generator and it's auxiliary sizing shall be sized as per the 3.03.13 specification requirement. NTPC is requested to confirm acceptance.	1. The deleted clause reference with the envisaged requirements as specified is not clear. Bidder to note that the requirement of adequacy coal is there in line with the specified requirements. Bidder to comply with the specifications requirements. 2. The discrepancy as referred by the bidder is not mentioned. Corresponding sizing clauses may be referred towards specifications compliance.
	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	1.01.01 (d)	1 OF 65	(d) Not Applicable		
	SECTION-VI, PART-B	SUB-SECTION- G-06 PRE-COMMISSIONING & COMMISSIONING ACTIVITIES	3.03.13	9 OF 14	Contractor shall demonstrate the capability of Steam generator and its auxiliaries to operate at rated parameters safely and on sustained basis at TMCR load while firing range of Indian coal(s) as specified in Table-1(A), Annexure-IV-2 ,sub section-IB ,Part-A of Section-VI blended with imported coal up o 30% by weight specified in Table-4, Annexure-IV-4, sub section-IB ,Part-A, Section-VI. Such demonstration shall be for 72 hours of continuous operation		
	SECTION-VI, Part-B ANNEXURE-SS1 SELECTIVE CATALYTIC REDUCTION	ANNEXURE-SS1 SELECTIVE CATALYTIC REDUCTION	3.00.00	4 OF 9	The specified requirements shall be complied for the most stringent conditions resulting either from the range of coals (design/worst/best/adequacy) specified or from the range of operating conditions specified for the steam generator (like 100% BMCR), or from both occurring simultaneously, unless specifically mentioned otherwise by the employer.		
1218	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	5.01.00 (b)	PAGE 9 OF 65	Steam Separator construction shall have: Fusion welded construction with welded hemispherical dished ends.	Bidder understands that steam Separator and Drain collection vessel with forged construction is also acceptable to NTPC inline with Bidder's earlier experience in NTPC projects and supplies made by bidder for NTPC projects. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements. Further, detailed aspects shall be reviewed during detail engineerng based on selected specific equipment.
1219	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	7.01.01 (c)	PAGE 11 OF 65	(c) Ensure even temperature distribution at gas and steam side by criss-crossing the steam paths between LHS and RHS.	Bidder's boiler design employs twin fire vortex for uniform heat absorption across the furnace. Further steam temperature control can be achieved by individual right/left spray control system for the superheater and with the help of gas biasing damper control for Reheater temperature balancing. Hence criss-cross arrangement in SH and RH line are not necessary for twin fire vortex furnace design and hence not envisaged. In our all operating units in India with above said boiler configuration the temperature imbalance is within 10 deg. C for both RH & SH. NTPC is requested to confirm acceptance.	Bidder to ensure the imbalance of temperature within the specified limits for both SH & RH (Super heater & Re-heater). Suitable space provision shall be provided during the engineering stage for future criss cross arrangement or any other measure (if required) in order to meet the specified requirements.
1220	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	7.01.00	13 of 65	10 Space Provision Keep provision of space for atleast 20% addition of additional economizer and 10% for the reheater surfaces in future.	NTPC is requested to note that Bidder has achieved the rated RH outlet temperature in all previous installation. Moreover as per bidder design RH temperature is control / achieved by gas biasing damper. Hence there will not be any issue to achieve the rated RH temperature. The requirement of RH additional surface is not applicable for bidders design. NTPC is requested to confirm acceptance.	Bidder to comply the specifications requirements
1221	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	8.02.00	15 OF 65	(d) Supported by steam or water cooled hanger tubes forming part of Steam circuit with hanger tubes designed for a minimum of 2 times the calculated load so as not to cause any dislocation/damage to the tube banks/setting. Necessary calculations in support of this shall be furnished by the bidder. Structural type hanger support will not be acceptable.	NTPC is requested to note that the economiser support by steam or water cooled hanger tubes will be new supporting arrangement for bidder as compare to the previous installation. Bidder would like to clarify once again that Economiser coils are supported by structural arrangement as per proprietary and proven standard design, which will not interfere the normal operation and maintenance of the boiler. Further bidder confirms that the structural support arrangement shall be designed taking care of erosion problems for fly ash. Further the supporting arrangement shall be designed for a minimum of two times the calculated load so as not to cause any dislocation/ damage to tube bank / sections. Hence, we request NTPC to accept structural type hange support also.	Bdder to comply the specifications requirements.
1222	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	9.01.09(l)	18 of 65	(l) Leakage control system - sector plate (s) system with drive unit & accessories shall be provided at hot end to reduce the hot end leakage and energy loss. This shall also online maintain the seal gap/radial seal clearance based on pre-set temperature and thereby ensure leakage control at various loads.	As per OEM proven design, RAPH seal plate arrangement Automatically actuated hot end radial sealing system via gas duct temperatures. Bidder understanda this will fulfil the specification requirement. NTPC is requested to confirm acceptance.	Further, detailed aspects shall be reviewed during detail engineerng based on selected specific equipment. Bidder to comply the specifications requirements.

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1223	SECTION – VI, PART-B	SUB SECTION-A-02 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	14.01.06 (iii)	22 of 65 44 of 65	Pulverizer Sound level Shall not exceed specified values. While selecting lagging, background noise from adjacent mills, drive system and other secondary & stray noises shall be taken into account.	NTPC is requested to note that the pulveriser noise level is not specified in the specification. NTPC is requested to specify the noise level for the pulveriser as well as for the Axial Fan.	It is already specified in Part-C. Pl. refer part C in this regard.
	SECTION – VI, PART-A	SUB-SECTION-IV FUNCTIONAL GUARANTEES	1.02.00	26 OF 73	Noise		
1224	SECTION – VI, PART-B	ANNEXURE-SS1	9.05.01	PAGE 15 OF 22	Vaporizer shall be designed to supply ammonia vapour to SCR reactor under all operating conditions. The vaporizer shall be shell and tube type heat exchangers. Auxiliary steam shall be used as heating source which will transfer heat to secondary Glycol/Water/Glycol-Water cycle which in turn would supply heat to ammonia. Glycol/Water/Glycol-Water mixture as intermediate heat transfer medium shall be circulated in closed cycle. Either of options shall be used as a working fluid in heating system of Ammonia vaporizer as per bidder's proven practice.	Bidder proposes instead of forced circulation system, Water bath type natural circulation system for heating of ammonia based on proven practice. Hence, the water will be directly heated through auxiliary steam and heat in water will be transferred to ammonia. NTPC is requested to kindly confirm acceptance.	Bidder to comply with specification requirement.
1225	TECHNICAL SPECIFICATION SECTION – VI, PART-A BID DOC. NO CS-4540-001A-2	SUB SECTION- IIA-08 LOW PRESSURE PIPING	1.10.00	Page 11 of 19	(a) All high points in piping system shall be provided with vents. All low points shall be provided with drains. Provisions of drains on steam piping shall be as per ASME code TDP-1. (b) For all Power cycle piping systems, minimum inside diameter of drain pipe selected shall not be less than 19mm.	NTPC is requested to note that the drain pipe size for boiler and critical piping will be decided by the bidder as per proven design and best engineering practice. NTPC is requested to kindly confirm acceptance.	Bidder to comply specification requirements.
1226	TECHNICAL SPECIFICATION SECTION – VI, PART-A BID DOC. NO CS-4540-001A-2	SUB – SECTION – A-03 STEAM GENERATOR AND AUXILIARIES INCLUDING ESP	17.01.02	PAGE 50 OF 65	The platforms shall be all along the length of soot blower control station, Fuel oil control station, SH & RH spray control stations, SCAPH control station, steam/water sample coolers, APH lube oil station etc. Access through Elevator,staircase and main access walkways for reaching the platforms shall be provided. The above equipment including scanner air fans should be located at firing floor elevation for ease of operation and maintenance.	Bidder requests NTPC to keep the soot blower control station, SH & RH spray control station at higher elevation as per bidder standard Practice. Soot Blower Control Station shall be located above Soot blowers as per Bidder standard Practice. NTPC is requested to kindly confirm acceptance.	The detailed aspects shall be reviewed during detail engineering based on specific sub-system selection without compromising the ease of O&M.
1227	TECHNICAL SPECIFICATION SECTION – VI, PART-A BID DOC. NO CS-4540-001A-2	SUB SECTION-A-08 Power Cycle Piping	1.08.00	Page 7 of 19	2.0-b Construction Gate valves Solid/flexible wedge below 100 NB Flexible wedge for 100 NB & above	2.0 Construction Gate valves Solid/flexible wedge below 100 NB Flexible wedge/parallel slide for 100 NB & above. NTPC is requested to kindly confirm acceptance.	Bidder may please refer Note 3 mentioned in Clause No. 1.08.00, Sub-section: A-08, Part-B of Technical specification, which mentions "Gate valves below 100 NB shall be solid wedge / flexible wedge type, valves of size 100 NB and above shall be of flexible wedge type. However, for sizes 100 mm NB and above and with class above 600, parallel slide valves are also acceptable.."
1228	TECHNICAL SPECIFICATION SECTION – VI, PART-A BID DOC. NO CS-4540-001A-2	SUB SECTION-A-08 Power Cycle Piping	1.08.00	Page 10 of 19	18. Unless otherwise agreed, all valves shall be fitted with the spindle in upright position.	NTPC is requested to note that valve will be installed in horizontal pipeline with stem upright and in vertical pipeline will have horizontal stem. NTPC is requested to kindly confirm acceptance.	Bidder's suggestions in vertical lines may be considered during detailed engineering.
1229	TECHNICAL SPECIFICATION SECTION – VI, PART-A BID DOC. NO CS-4540-001A-2	SUB SECTION-A-08 Power Cycle Piping	1.08.00	Page 10 of 19	19. The minimum inside diameter for valves shall be as per requirements of ASME B16.34. For valves beyond the listed sizes & rating in Table-A of non-mandatory Appendix-A of ASME B16.34, the minimum diameter of valve flow passage shall not be less than 90% of pipe inside diameter. However, reduced port valves are also acceptable for sizes 65NB and below.	NTPC is requested to note that ID of the valves shall be in line to ASME B16.34 requirements i.e. Table-A of non-mandatory Appendix-A of ASME B16.34. NTPC is requested to kindly confirm acceptance.	Bidder's Understanding is correct, however, Bidder also to note that, for those valves beyond the listed sizes & rating, requirement has been clearly specified in the clause.
1230	TECHNICAL SPECIFICATIONS SECTION VI –Part – A BID DOC NO. CS-4540-001A-2	SUB-SECTION- A-9 (LOW PRESSURE PIPING)	2.12.02	PAGE 10 OF 19	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.	NTPC is requested to note that as per bidder as per proven design and best engineering practice following material will be followed: Pipe sizes 65 mm NB & above - Carbon Steel (Cast body + Galvanised body) Pipe size sizes 50 NB and below - Carbon Steel (Forged Body)	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."
1231	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.14.00	PAGE 13 OF 38	VALVES	We understand that in case any of the specified mandatory spares / Items are not covered in the actual design / supply, then that spares / items may be treated as "not applicable". NTPC is requested to confirm that our understanding is correct.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1232	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER – 06 PIPING	2	PAGE 1 OF 3	Power Cycle Piping	We understand that in case any of the specified mandatory spares / Items are not covered in the actual design / supply, then that spares / items may be treated as "not applicable". NTPC is requested to confirm that our understanding is correct.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.

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1233	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.14.00	PAGE 13 OF 38	A. Spares for Steam Separator Safety valves- 4. Locking pin set	NTPC is requested to note that these spares shall be supplied only if applicable as per OEM Standard. Supply of this component shall be discussed and finalized accordingly.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1234	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.14.00	PAGE 13 OF 38	B. Spares for SH Safety Valves 10. Set of washers 4. Set of locking pins	NTPC is requested to note that these spares shall be supplied only if applicable as per OEM Standard. Supply of this component shall be discussed and finalized accordingly.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1235	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.14.00	PAGE 14 OF 38	C. Spares for Hot RH safety Valves 10. Set of washers 4. Set of locking pins	NTPC is requested to note that these spares shall be supplied only if applicable as per OEM Standard. Supply of this component shall be discussed and finalized accordingly.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1236	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.14.00	PAGE 14 OF 38	D. Spares for Cold RH safety Valves 10. Set of washers 4. Set of locking pins	NTPC is requested to note that these spares shall be supplied only if applicable as per OEM Standard. Supply of this component shall be discussed and finalized accordingly.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1237	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.14.00	PAGE 14 OF 38	E-1. Spares for Electromatic Relief Valves 2.2 Spring for main valve 2.4 Seal bushing for main valve 2.6 Bushing for pilot valve 2.8 Seal ring	NTPC is requested to note that these spares shall be supplied only if applicable as per OEM Standard. Supply of this component shall be discussed and finalized accordingly.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1238	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.14.00	PAGE 14 OF 38	E-2. Spares for Electromatic Ball Valves	NTPC is requested to note that either Electromatic Relief Valves or Electromatic Ball Valves shall be supplied for the project. Mandatory spare shall be supplied accordingly.	In such case, Bidder shall supply mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1239	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.18.00	PAGE 15 OF 38	Boiler Feed Check Valve 4. Gland packings	NTPC is requested to note that these spares shall be supplied only if applicable as per OEM Standard. Supply of this component shall be discussed and finalized accordingly.	In such case, Bidder shall supply equivalent mandatory spares pertaining to their offered design. Bidder to comply the specifictions requirements.
1240	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	1.17.00	PAGE 15 OF 38	Spares for boiler main steam stop valve 1. Boiler main stop valve assy	NTPC is requested to note that Boiler main stop valve ASSY without valve body shall be supplied.	Bidder to note that assembly shall include valve body also. Bidder to comply the specifications requirements.
1241	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER – 06 PIPING	2	PAGE 1 OF 3	7-Complete gate valves assembly up to the size of 50 NB	Kindly note that these spares are not applicable as there are no Gate valve in Bidder design below DN50.	In such case, Bidder shall supply mandatory spares applicable for their offered design as per specification requirement, and accordingly Schedule of Prices to be filled.Bidder to comply the specifictions requirements
1242	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER – 06 PIPING	2	PAGE 2 OF 3	15b) Steam trap & Y strainer above 25 NB & up to 50 NB	Kindly note that these spares are not applicable as there are no Steam trap & Y strainer above 25 NB & up to 50 NB in Bidder design.	In such case, Bidder shall supply mandatory spares applicable for their offered design as per specification requirement, and accordingly Schedule of Prices to be filled.Bidder to comply the specifictions requirements
1243	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER – 06 PIPING	2	PAGE 2 OF 3	15c) Steam trap & Y strainer above 50 NB	Kindly note that these spares are not applicable as there are no Steam trap & Y strainer above 50 NB in Bidder design.	In such case, Bidder shall supply mandatory spares applicable for their offered design as per specification requirement, and accordingly Schedule of Prices to be filled.Bidder to comply the specifictions requirements
1244	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER – 06 PIPING	2	PAGE 3 OF 3	Additional Note -If there is one no valve only of particular type , class and size then only one no is required. If there is one no valve only of particular type , class and size then only one no is required	Kindly note that if there is one no. valve only of particular type, class and size then only one no. of mandatory Spare shall be supplied. NTPC is requested to kindly add this note in the PCP valve section also like LP section.	Bidder's Proposal not acceptable. Bidder to comply specification requirements.
1245	TECHNICAL SPECIFICATION SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER – 06 PIPING	2	PAGE 3 OF 3	Additional Note -In case any of the above specified mandatory spares / Items are not covered in the actual design / supply, then that spares / items may be treated as “not applicable”.	We understand that if these Items are not covered in the actual design then these spares / items will be treated as “not applicable”.	Bidder.s Understanding is correct
1246	SECTION – VI, PART-A	SUB-SECTION-IIC CONTROL & INSTRUMENTATION SYSTEM	2.04.7	8 of 18	**Requirements of Station LAN architecture** DDCMIS vendor shall upgrade/ update all DDCMIS system along with Station LAN to the latest version/ release of DDCMIS system software/ patches, meeting the system software requirements as mentioned in Part-B, SUB-SECTION-IIIC-02 DDCMIS. This shall include the latest OS and its corresponding latest version/ release of DDCMIS system software/ patches.The upgrade/update shall be checked for and carried out six months before the completion of AMS of DDCMIS. Any change in hardware and the requisite services (Engineering/ Erection/ Commissioning / Documentation) required for the same shall also be carried out by the contractor within the contract price	Software Patches/ updates for softwares supplied along with DDCMIS shall be provided free of cost to the customer till AMC. However, any upgrade in software/ hardware shall be provided on chargeable basis.	Bidders understanding is not correct. Bidder to comply the specification requirements

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1247	SECTION – VI, PART-A	SUB-SECTION-IIC CONTROL & INSTRUMENTATION SYSTEM	4.00.00(ii)	12 OF 18	For monitoring signals of Boiler SH/RH metal temperature & Generator Core/ Slot temperature measurements Profi Bus / Foundation Field Bus Compatible temperature transmitters / Wireless temperature transmitters are acceptable. For Generator Core/ Slot temperature measurements, Modbus connectivity to DDCMIS is also acceptable. In case Wireless temperature transmitters are provided, the requirements specified at Sub Section – IIIC-18, Wireless Instruments & System including fieldbus instruments, Part-B, Sec-VI and corresponding clauses in Part-A, F &C will be applicable	Bidder will considered Profi Bus/ Foundation Field Bus Compatible temperature transmitters/ Wireless temperature transmitters for metal thermocouple except for temp transmitter used for MFT	Bidder's understanding is correct . Please also see the complete referred clause for detail.
1248	SECTION – VI, PART-A	Annexure C to IIC Contract quantity-	2.04.00	5 of 24	Stand-Alone DDCMIS The Control System of Stand-Alone DDCMIS shall comprise of following process blocks. The major equipment/ control loops in each block are indicated below. i) Compressor Block including Air compressor for Mill reject system: The control, operation and monitoring functions of all compressors (IAC and PAC and Air compressor for Mill reject system being supplied by Contractor as well as employer's IAC and PAC) shall be implemented in this FG. The control scheme shall be finalised during detail engineering. ii) NOx Storage system block: This block consist of control of NH3 unloading,	Bidder clarify that compressor will be controlled by OEM supplied proprietary control system which will be linked to DCS through Modbus for monitoring only	Bidder clarification is acceptable.
1249	SECTION – VI, PART-B SUB-SECTION-IIIC-02 DDCMIS		15.00.00	3 of 17	Triple/ Dual measurement schemes shall be provided for triple / dual redundant sensors used in closed loop and open loop controls. The triple / dual measurement schemes for closed loop control shall provide median /average outputs. The operator shall be able to select any of the transmitters or the median/average value from the LVS/ OWS.	In case of compressor, 2 no's of duplex PT-100 RTD per bearing and the clarification as below. As per IEC 60034, OEM can accept 37 micron RMS vibrations on motor bearing housing. But for centrifugal compressor there vibrations are too high. Please note centrifugal compressor rotates more than 45,000 rpm. As per API 541, OEM needs to maintain motor vibration less than 12.5 micron P-P on motor shaft tip and 25 micron P-P on motor bearing housing. The selected motor is in line with this vibrations. In case, we make additional drills on motor bearing housing to fit additional sensors, then it will increase motor vibrations. As per API 672, OEM needs to maintain compressor shaft vibration less than 50 microns P-P for healthy operation. Under such condition OEM can't accept motor vibrations more than specified limit as per API. Bidder request NTPC accept the same for compressor application and also other OEM proven equipment	For RTDs of Compressor motor, Bidder to refer Clause no-7.07.00 of Sub Section-II-B-02, Section -VI, Part-B of Technical Specification.
1250	SECTION – VI, PART-B	SUB-SECTION-IIIC-02 DDCMIS	29.00.00	16 of 17	1. The Bidder shall provide an unlimited warranty on all equipment and software during the Defect liability period. This warranty shall include repair, replacement or correction of identified software or hardware discrepancies at no cost to Employer. 2. The Bidder shall provide warranty spares and an exhaustive list of warranty spares including components for system hardware and instrumentation and peripherals based on (and keeping adequaten margin over) normally experienced failure rate shall be submitted by the Bidder for Employer's review regarding adequacy of the same. The warranty spares as per the list mentioned above will be dispatched by the Bidder along with the main equipment consignment. The Bidder shall also provide expandable items for the warranty period. 3. In case of any hardware failure which hampers normal operation, the Bidder during the warranty period must provide on-site technical expertise to repair/rectify the problem within a week and if any component is not available at site, the Bidder must arrange to supply these components at site within additional 48 hours. If a software problem is identified, this problem shall be corrected within two weeks. 4. After six months of DDCMIS operation the Bidder shall provide the list of parts and expendables utilized for the period. The same information will be provided at the conclusion of the warranty.	Request NTPC to clarify below points: i) Define unlimited warranty ii) Bidder will submit Exhaustive list of warranty spares including components for system hardware and instrumentation and peripherals to NTPC for reference purpose only. Bidder doesn't envisage any Comment/ approval from NTPC on the submitted list. iii) Bidder understands that on completion of warranty period, the unused spares will be handed over to bidder.	i) Bidder to comply specification requirement. ii) Bidder to comply specification requirement. iii) Bidders understanding is correct.
1251	SECTION VI, PART-B	SUB-SECTION - IIIC-02 DDCMIS ANNEXURE IIIC-02G	3.00.00	3 of 4	SAT (Site Acceptance Test) for Performance Testing: Site acceptance test shall be conducted for evaluating the performance of the APC software…..	Bidder clarify that Performance Requirement of the Closed Loop Control System depends on the dynamic characteristics of the boiler, turbine and its Auxiliary equipment. In view of that the requirement of the clause cannot be met.	Bidders understanding is not correct. While PG test of CLCS shall be dealt as per Performance Gaurantees Chapter, The Annexure calls for additional control system to meet flexibilization requirement of Indian Grid , Corresponding requirement is also mentioned in mechanical chapters. As mentioned in Specifications, SAT Parameters shall be finalized only during detailed engineering.

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1252	SECTION-VI, PART-B	SUB-SECTION-IIIC-08 CONTROL VALVES, ACTUATORS & ACCESSORIES	7.01.00	6 OF 7	POSITIONER WITH INTRINSIC PARTIAL STROKE TEST (PST) FACILITY FGD Bypass Damper is very critical for the safe evacuation of flue gas when FGD is not in operation. Normally it shall be in CLOSED condition most of the times when FGD is in operation. But during emergency need, if it fails to OPEN, it can lead to high furnace pressure and subsequent MFT. Therefore, a PARTIAL STROKE TEST for the Bypass damper to be carried out in AUTO at regular intervals.	Bidder clarifies that SMART ON/ OFF electrical actuator with partial stroke test facility is used for FGD Bypass damper.However, the SMART ON/ OFF actuator doesn't have a Positioner.	Bidder understaing is not correct. Bidder to note that pneumatic operated biplane damper is envisaged for FGD Bypass Damper as indicated in Tender Drg Part-E of Technical Specification. Positioner of that actuator shall have PARTIAL STROKE TEST (PST) FACILITY. Bidder to comply specification requirement.
1253	SECTION – VI, PART-B	SUB SECTION-II-B-02 MOTORS	7.07.00	3 of 4	In HT motors, at least four numbers simplex / two numbers duplex platinum resistance type temperature detectors shall be provided in each phase stator winding. Each bearing of HT motor shall be provided with three numbers duplex RTDs connected to three numbers dual input transmitters with display. However for air compressor, being high speed drive, each motor bearing shall be provided with minimum two numbers of duplex RTDs connected to two numbers dual input transmitters with display unit	Bidder is proposing 3 Nos Duplex RTD per Bearing for all Mill and Fan HT Motors due to the following reasons 1. Due to the space constraint Maximum 3 Nos Duplex RTD can be provided and extra DTT cannot be accomodated and this is as per many OEM recommendations 2. NTPC to please note that 3Nos Duplex RTD provided in all previous executed Project like TANDA and KHARGONE.	Bidder`s understanding is correct
1254	SECTION – VI, PART-E SECTION – VI, PART-E	-	4540-001-POM-A-020 4540-101-POM-A-018b	-	Scheme for pulveriser SCHEME OF AIR & FLUE GAS PATH WITH INSTRUMENTATION	Bidder have considered the flow measurement as per bidder standard practice as follows: 1. Mill inlet air flow is as per bidder proven practice based on slant orifice flow measurement. This proven OEM design has been successfully executed in Power projects in India and accepted by esteemed customers like NTPC, NLC, RRVUNL, MPPGCL, Mahagenco & Jaypee. 2. FD/ID/PA fans inlet flow based on Pressure measuring Annular pipes at inlet box opening and inlet cone.	Bidder's proposal for "Bidder's standard & proven practice" is also acceptable.
1255	SECTION – VI, PART-F	SUB-SECTION-VI CHAPTER -01 SG & AUXILIARIES	2.01.00(6)	24 OF 38	6. Furnace and Flame viewing system- 6.2 Electronic Modules	Furnace TV Mandatory Spares: Electronic Modules of Furnace Camera are not user replaceable, hence Camera Electronics is not considered part of Mandatory Spare, however complete Camera is offered as per Mandatory Spare. Accordingly commercial rebate shall not be applicable for such items.	Bidder's proposal is not acceptable. Bidder to comply specification requirement.
1256	TECHNICAL SPECIFICATION SECTION – VI, PART-A/ BID DOC. NO CS-4540-001A-2	SUB-SECTION-I INTENT OF SPECIFICATION	4.02.00	PAGE 5 OF 8	**Pre-commissioning and commissioning activities:** The contractor's scope shall include all pre-commissioning and commissioning activities, materials and services as detailed in other portion of technical specifications including supply of all consumables (except coal, oil and limestone), temporary equipment and pipings, instruments, labour / skilled manpower's etc. The scope includes complete requirement of flushing oils including fresh oil refilling during the pre-commissioning and commissioning activities and subsequent initial operation	Kindly note that as per Annexure-SG-04, Ammonia handling and Storage system and Catalyst for SCR system are excluded from Bidder's scope. Hence, we understand that the 'supply of Anhydrous Ammonia' and 'Catalyst' as envisaged for the operation of SCR system & Ammonia Storage & Handling System will be excluded from bidder's scope. NTPC is requested to delete this requirement and cover in the exclusion list.	**Bidder to refer the amendment A-SG-36 in this regard.**
	TECHNICAL SPECIFICATIONS SECTION-VI, PART-A BID DOCUMENT NO.: CS-4540-001A-2	SUB SECTION-II A-01 STEAM GENERATOR & AUXILIARIES INCLUDING ESP	1.03.03	1 OF 28	Supply of all consumables (except coal oil and limestone) like chemicals for chemical cleaning, passivation, inhibition etc., Catalysts, fuel oil & coal for firing be-yond declared quantity (during bid stage as per SS-I, part-A), oil for line flushing, nitrogen for blanketing, consumables for air/ gas tightness tests and any other consumable as may be required for above pre-commissioning/ commissioning activities. And the total required limestone shall be issued free of charge by the employer for		
1257	TECHNICAL SPECIFICATION SECTION-VI, PART-A BID DOC NO.: CS-4540-001A-2	SUB-SECTION-I-A / PROVENNESS	4.24	18 OF 36	Provenness criteria for critical equipment(s) and bought out items for SCR system 4.24.1 Ammonia handling and storage system for SCR 4.24.2 Catalyst for SCR system	Kindly note that as per Annexure-SG-04, Ammonia handling and Storage system and Catalyst for SCR system is excluded from Bidder's scope. Hence, we understand that the given provenness clause for 'Ammonia handling and storage system for SCR' and 'Catalyst for SCR system' are for reference only and will be applicable for SCR system scope mentioned in Annexure-SS1. Kindly confirm that our understanding is correct.	Bidder to refer the scope as defined in the specifications. Accordingly, sub-vendor supplied equipment's design & engineering as per package scope is included in bidder's scope. Bidder to comply the specifications requirements.
1258	TECHNICAL SPECIFICATION SECTION-VI, PART-A BID DOC NO: CS-4540-001A-2	SUB-SECTION–I-A	1	PAGE 1 OF 25	ATTACHMENT - 3K for Provenness of various auxiliaries	Kindly note that NTPC has provided a list of approved sub-contractors/sub-vendors for the items covered under provenness category (such as a) PA Fan / ID Fan / FD Fan, Coal Pulverizer, Raw Coal Feeder, Boiler start up drain re-circulation pumps, Air Pre-Heater, Auxiliary Boiler, etc.). We understand that Bidder is not required to submit any provenness document (attachment-3K) for the qualification for these approved vendors. Bidder is required to submit provenness documents (Attachment-3k) in case new vendor (which are not covered in NTPC approved vendor list) are being proposed by Bidder for these applicable items/system/equipment. Kindly confirm that our understanding is correct.	Bidder to note that regarding the provenness, variable requirements (like technology licensing/collaboration etc.) need to be taken up for further processing as applicable.
	TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.:CS-4540-001A-2	SUB-SECTION–E-60 INDICATIVE VENDOR LIST		PAGE 43 OF 50	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL: Approved vendor names are provided for following packages under provenness category:		
1259	TECHNICAL SPECIFICATION/ SECTION-VI, PART-A/BID DOC NO.: CS-4540-001A-2 / SUB-SECTION-I-A/ PROVENNESS		10.0	35 OF 36	Balance equipment's/ systems The Bidder at its option can source the balance of plant equipment/systems not covered in clause 3.0, 4.0, 5.0, 6.0, 7.0 8.0 & 9.0 above. However for such balance of plant equipment/systems, the Employer reserves the rights to satisfy himself on the provenness of the equipment and capability and capacity of the manufacturers.	We understand that sourcing for balance of plant equipment/systems, which are not covered in clause 3.0, 4.0, 5.0, 6.0, 7.0, 8.0 & 9.0 shall be referred as per NTPC approved sub-vendor list. No other provenness of the equipment and capability and capacity of the manufacturing will be required by NTPC for such equipment/system.	Bidder understanding is correct for Balance of Plant items sourcing, However, regarding provenness requirements, bidder to comply with the specification requirements.

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1260	TECHNICAL SPECIFICATIONS SECTION VI, PART- B	SUB-SECTION- E-60 INDICATIVE VENDOR LIST	1.1	1 of 2	Reasonable efforts have been made to collate the sub-vendors proposed by the various main contractors from time to time against different Projects/Packages and accepted by NTPC for various items. 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.	a) Bidder has observed that the indicative vendor list provided by NTPC in this sub-section (sub-section E-60, Section-VI, Part-B) is preliminary and does not include some of the sub-vendors/suppliers/manufacturers/sub-contractors who are approved by NTPC. We understand that the sub-vendors / suppliers / manufacturers / sub-contractors, who are already approved by NTPC / have executed NTPC projects / are executing NTPC projects for various system / equipment / items / services, but not covered in indicative vendor list, are considered to be approved by NTPC for Talcher project. Kindly confirm that our understanding is correct. b) Bidder proposes to discuss and finalize vendor list before single stage bid submission so that the price offer can be submitted based on the vendor list. The vendor list finalized based on the discussion with NTPC will become part of Contract (Appendix-5) in case of award to bidder. c) NTPC is requested to kindly share the latest list of banned sub-vendors / suppliers / manufacturers / sub-contractors for our understanding. d) The sub-vendors/suppliers/manufacturers/sub-contractors which are not covered / mentioned in the indicative list shall be sourced from Main Contractor approved sources with inspection cat-III.	**a) Pl refer clause no 1.1 of E-60** **b)Indicative vendor list attached with the tender specification shall be considered as final for bidding .** **C) Indicative vendor list attached with the tender specification is updated one** **d) Items which are not appearing in the indicatice vendor list, but critical in nature found during detailed engg will be discussed & finalised mutually for vendor control & inspection control.**
	TECHNICAL SPECIFICATIONS SECTION VI, PART- B	SUB-SECTION- E-60 INDICATIVE VENDOR LIST	1.2	1 of 2	The approved sub-vendor list drawn is not based on NTPC driven enlistment process but based on the sub- vendors proposed by various Main Contractors. As such, it is possible that some of the Suppliers/Manufacturers who may be involved in similar work/process may not be appearing in the list as such sub-vendors may not have been proposed by Main Contractors against NTPC Contracts.		
	TECHNICAL SPECIFICATIONS SECTION VI, PART- B	SUB-SECTION- E-60 INDICATIVE VENDOR LIST	1.7	2 of 2	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.		
	TECHNICAL SPECIFICATIONS SECTION VI, PART- B	SUB-SECTION- E-60 INDICATIVE VENDOR LIST	1.3	1 of 2	In case the successful bidder chooses to propose additional sub-vendors with relevant experience after the award of the contract such sub-vendors will be considered in terms of Clause no: 19.1 of GCC, provided the proposals are received sufficiently in time: 90 days prior to ordering date of a Bought Out Items/Start of Manufacturing so as not to impede the progress of the contract.		
	EPC PACKAGE SECTION – IV (GCC)	-	19.1	30 of 71	Appendix 5 (List of Approved Subcontractors) to the Contract Agreement specifies major items of supply or services and a list of approved Subcontractors against each item, including vendors. Insofar as no Subcontractors are listed against any such item, the Contractor shall prepare a list of Subcontractors for such item for inclusion in such list. The Contractor may from time to time propose any addition to or deletion from any such list. The Contractor shall submit any such list or any modification thereto to the Employer for its approval in sufficient time so as not to impede the progress of work on the Facilities. Such approval by the Employer for any of the Subcontractors shall not relieve the Contractor from any of its obligations, duties or responsibilities under the Contract.		
1261	TECHNICAL SPECIFICATION SECTION – VI, PART-A BID DOC. NO CS-4540-001A-2	SUB-SECTION-IID CIVIL WORKS	2.02.00	12 OF 13	2. Construction Power Scope of supply of construction power is specified in SECTION – VI, PART-B, SUB SECTION B-19 of Technical specification.	We understand that the contrcution power clause referred in clause no. 2.02.00 (Page 12 of 13), sub-section-IID, Section-VI, Part-A is not correct. We understand that bidder to refer Sub-section B-18, section-VI, Part-B (Contruction Power) in this regard. Kindly confirm that our understanding is correct.	**Bidder's understanding is correct. Please refer Amendment no. D1-35**
	TECHNICAL SPECIFICATION SECTION - VI/PART-B	SUB-SECTION-B – 19	-	-	BATTERY		
	TECHNICAL SPECIFICATION SECTION - VI/PART-B	SUB-SECTION-B – 18	-	-	CONSTRUCTION POWER		
1262	TECHNICAL SPECIFICATION SECTION-VI, PART-A BID DOC. NO.: CS-4540-001A-2	SUB-SECTION-IID CIVIL WORKS Clause - 1.00.01	1.05.08.03	13 of 101	All steel structures shall be fabricated in factory, transported and erected at site. All factory-fabricated structures shall have bolted field connections. Coal bunkers with hoppers, CW ducts and chimney flue liners can either be fabricated at factory in segments, transported and welded at site before erection or fabricated at site.	NTPC is requested to allow fabrication of Ceiling Girder, Backend structure, Pipes support structure, secondary structure at site also.	Bidder to adhere to Technical Specifications.
1263	TECHNICAL SPECIFICATIONS SECTION VI, PART-C BID DOC. NO.:CS-4540-001A-2	GENERAL TECHNICAL REQUIREMENTS	17.00.00	28 OF 114	The price of each tool / tackle shall be deemed to have been included in the total bid price. These tools and tackles shall be separately packed and sent to site. The Contractor shall also ensure that these tools and tackles are not used by him during erection, commissioning and initial operation. For this period the Contractor should bring his own tools and tackles. All the tools and tackles shall be of reputed make acceptable to the Employer.	NTPC is requested to note that in case these tools and tackles are used by the Contractor during erection, commissioning or initial operation, the same shall be refurbished repaired/replaced as required to the satisfaction of the Employer before handing over to the Employer. All the tools and tackles shall be of reputed make acceptable to the Employer.	**Bidder to comply the specifications requirements.**

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1264	SECTION - VI PART – E (TENDER DRAWINS)	P&ID of Start up Drain System	DRG.NO. 4540-001-POM-A-019	-	Motor operated valve upstream of control valve at flash tank inlet	The water separator drain control valve is critical for boiler start up system. Warm up connection is required for instant operation of valve during plant operation. A control valve is shown at the down stream of the motor operated isolation valve. Due to this valve, proper warm up can not be provided to the control valve. Hence, bidder proposes the motor operated valve will be provided at down stream of the control valve instead of upstream as per tender P&ID. NTPC is requested to confirm acceptance.	Detailed aspects w.r.t. the valve location shall be reviewed during detail engineering based on the selected specific equipment/sub-system.
1265	TECHNICAL SPECIFICATION SECTION – VI, PART-A	Annexure-B to subsection II C SMART PROJECT MANAGEMENT SYSTEM	2.02.0	PAGE 2 OF 4	GPS tracking for Over Dimension Consignment (ODC) …..... All ODC shipments in SCOPE of EPC contractor to be covered.	Bidder requests NTPC to reconsider this requirement as most of the Boiler supply comes under ODC. Bidder requests NTPC to consider the tracking of critical consignments only. The list of critical consignment may be discussed with NTPC during detail engineering stage. NTPC is requested to confirm acceptance.	Bidder's proposal is not acceptable. Bidder to comply specification requirement.
1266	TECHNICAL SPECIFICATION SECTION – VI, PART-A	Annexure-B to subsection II C SMART PROJECT MANAGEMENT SYSTEM	4.00.00	PAGE 3 OF 4	T&P tracking & Equipment monitoring. …..All T&P equipment deployed by contractor to be covered. …....	We understand that T&P tracking & Enquipment monitoring system is required to deploy for heavy equipements such as Cranes, Hydras, JCB only. Small tools such as grinding machines, winch machines, welding machines etc and similar other tools & plants are not required to cover for tracking. NTPC is requested to confirm acceptance.	Bidders understanding is correct. However, if any additional heavy equipements are being provided by bidder as a part of T&P, the same shall also be included for tracking and equipement monitoring.
1267	TECHNICAL SPECIFICATION SECTION – VI, PART-D	ERECTION CONDITIONS OF CONTRACT	44.21.00	30 OF 72	The Contractor shall abide by the following during Construction and Erection activities: I. Chain pulley block shall not be used for loads more than 2 (Two) tonne.	Bidder would like to clarify that suitable capacity of chain blocks shall be used for lifting based on the loads considering the safety margin as per Bidder's standard practice. NTPC is requested to confirm acceptance.	Bidder to comply with Specification requirement complying safety requirements.
1268	TECHNICAL SPECIFICATION SECTION – VI, PART-D	ERECTION CONDITIONS OF CONTRACT	6.01.00	PAGE 3 OF 72	….....Each steam and water tubes shall be blown with compressed air and shall be subjected to 'ball test' before erection to ensure that no obstructions exist. ….....	Bidder understands that sponge test may also be accepted in place of ball test at site. Sponge test is a safe working practice and used in NTPC previous projects also. NTPC is requested to confirm acceptance.	Ball pass is carried out at shop after fabrication of tubular product to ensure the obstruction /cleanliness inside the panel/Coil due to excess penetration of weld & bend area . However ,at site, sponge test is carried out with compressed air inside the tubular product if no further action is carried out at site before erection.
1269	TECHNICAL SPECIFICATION SECTION – VI, PART-F BID DOC NO: CS-4540-001A-2	SUB-SECTION–VI MANDATORY SPARES	-	4 OF 38	CHAPTER -01, SG & AUXILIARIES	We have reviewed the mandatory spares list and found that many of the spares requested by NTPC are not inline with Bidder's/OEMs standard practice/offerings. Bidder would request NTPC to discuss and finalize mandatory spares list before single stage bid submission so that the price offer can be submitted based on the agreed mandatory spare list.	In case the specified item is not applicable/ not inline with Bidder's/OEMs standard practice/offerings, 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.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1270	TECHNICAL SPECIFICATIONS SECTION VI, PART-C BID DOC. NO.:CS-4540-001A-2	GENERAL TECHNICAL REQUIREMENTS	Annexure-I	PAGE 69 OF 114	(C) Thermal Sector Minimul Local Content defined for various auxiliaries for boiler, ESP, Turbine, Generator, CHP, C&I, AHP, Raw Water Intake & supply system, CW & ACW system, Air Condition & Ventilation System, FGD.	NTPC is requested to note that Talcher Thermal Power Plant Tender Specification is issued on EPC turnkey package basis. Bidder can confirm the Minimum Local Content percentage for EPC turnkey package basis only and not for individual items/auxiliaries as mentioned in Clause no. (C) (Thermal Sector), Page 69 to 114, Annexure-I to General Technical Requirement. Therefore, NTPC is requested to clarify that the Minimum Local Content will be applicable on EPC package basis only as defined in Clause no. E (Minimum Local Content percentages in EPC/Turnkey package), Page 72 of 114, Annexure-I to General Technical Requirement.	Bidder to comply with Specification requirement.
	TECHNICAL SPECIFICATIONS SECTION VI, PART-C BID DOC. NO.:CS-4540-001A-2	GENERAL TECHNICAL REQUIREMENTS	Annexure-I	PAGE 72 OF 114	(E) Minimum Local Content Percentages in Engineering, Procurement & Construction (EPC) / Turnkey Project In case the Contract is awarded through the EPC route, the contractor should comply with the requirement of MLC for individual items as listed in Annexure-I and should purchase these items only from Class-I Local supplier. In addition, MLC for complete EPC project may also be prescribed as below: 1) Pacakge based work (Boiler) - Minimum local content 60% 2) TG System (Water Cooled Condenser) - Minimum local content 60% ----------		
	TECHNICAL SPECIFICATIONS SECTION VI, PART-C BID DOC. NO.:CS-4540-001A-2	GENERAL TECHNICAL REQUIREMENTS	40.00.00	57 OF 114	j) All equipment/materials/parts/items required in this package which are domestically manufactured with sufficient domestic capacity as identified in Annexure-I of MOP order dated 16/11/2021 including its subsequent revisions (copy attached as Appendix-II) shall necessarily be sourced from the class-I local suppliers only as per the extant provisions of the Public Procurement (Preference to Make in India) Orders issued by DPIIT and MoP. Any violation w.r.t Make in India and minimum local content (MLC) requirements as specified shall be sole responsibility of the Bidder.		
	TECHNICAL SPECIFICATIONS SECTION VI, PART-C BID DOC. NO.:CS-4540-001A-2	GENERAL TECHNICAL REQUIREMENTS	Annexure-II	PAGE 73 OF 114	13. Minimum Local Content requirement for goods, services or works shall be in accordance with the conditions laid down in respectice Order(s) of the sectors on Public Procurement (Preference to Make in India) to provide for purchase preference (linked with local content).		

Sr. No.	Section / Part / Chapter / Volume	Sub Sec	Clause No.	Page no.	Bid Specification Stipulation	Bidder's query	Owner's Reply
1271	TECHNICAL SPECIFICATION SECTION – VI, PART-B	Part-7 Drawing No 4540-999-POE-J-001	'-		Single line diagram of SG package- Compressor house/Aux boiler switchgear	Bidder clarify that MRHS compressor / Instrument air compressor /service compressor are HT drives as per past project experience which shall be considered as part of Main HT switchgear located at TG building . LT drives of compressor house will be connected to compressor MCC. Compressor MCC will be fed from nearest building PMCC LT drives of Aux Boiler house will be connected to Aux Boiler MCC. Aux boiler will be fed from nearest building PMCC	Bidder is refering in correct. Bidder to refer EPC SLD enclosed in the Tender.
1272	TALCHER THERMAL POWER PROJECT STAGE-III (2X660 MW) EPC PACKAGE	SUB SECTION-II-B-02 MOTORS	-		Motors 3.3/6.6 KV motors shall be offered with dust tight phase segregated double walled (metallic as well as insulated barrier) Terminal box. Contractor shall provide termination kit for the offered Terminal box. The offered Terminal Box shall be suitable for fault level of 250 MVA for 0.12 sec. Removable gland plates of thickness 3 mm (hot/cold rolled sheet steel) or 4mm (non magnetic material for single core cables) shall be provided.	Bidder clarify that this requirement cannot be followed for all HT motors due to layout restriction. The type of terminal box will be provided suiting OEM standard and meeting layout restrictions	Bidder proposal is not acceptable. Bidder to comply Technical specification.
1273	TALCHER THERMAL POWER PROJECT STAGE-III (2X660 MW) EPC PACKAGE	SUB SECTION-B-2	7.08.00	3 of 4	Motor body shall have two earthing points on opposite sides	Earthing points shall be as per proven OEM design and OEM stand guarantee on the safety of the equipment.	Bidder proposal is not acceptable. Bidder to comply Technical specification.
1274	TECHNICAL SPECIFICATION SECTION – VI, PART-B	SUB SECTION-B-10 CABLING, EARTHING & LIGHTNING PROTECTION	5.04.00	12 of 21	33kV/11kV/6.6kV/3.3 kV/switchgear equipment and 415V switchgear--- 65 x 8mm GS flat		
1275	TALCHER THERMAL POWER PROJECT STAGE-III (2X660 MW) EPC PACKAGE	SUB SECTION-B-2	MOTORS-7.07.00	3 of 4	In HT motors, at least four numbers simplex / two numbers duplex platinum resistance type temperature detectors shall be provided in each phase stator winding. Each bearing of HT motor shall be provided with three numbers duplex RTDs connected to three numbers dual input transmitters with display. However for air compressor, being high speed drive, each motor bearing shall be provided with minimum two numbers of duplex RTDs connected to two numbers dual input transmitters with display unit	Bidder is proposing 3 Nos Duplex RTD per Bearing for all Mill and Fan HT Motors due to the following reasons 1. Due to the space constraint Maximum 3 Nos Duplex RTD can be provided and extra DTT cannot be accomodated. 2. NTPC to please note that 3Nos Duplex RTD provided in all previous executed Project like TANDA and KHARGONE.	Bidder proposal is acceptable which is inline Technical specification.
1276	TECHNICAL SPECIFICATIONS SECTION VI, PART-B	SUBSECTION-B-11 STATION LIGHTING-	4.00.00 (6)	6 of 18	LED Luminaires shall be used for the lighting of all the indoor & outdoor areas inbidder's scope. However for DC lighting, hazardous areas & aviation lighting etc.conventional type luminaires shall be used.	Bidder clarify that LED illuminairies for DC lighting can be used as per market availablity	Bidder proposal for LED illuminairies for DC lighting is acceptable
1277	TECHNICAL SPECIFICATIONS SECTION VI, PART-B				General clarification	Bidder proposes that Boiler related MCC panels are considered at Boiler MCC room located in TG building. MCC panels of , compressor, ammonia,FOPH, Aux boiler,, are located in respective builidng/Area as applicable. Sootblower MCC & Valve DB are considered to be located at Boiler platform.	Sootblower MCC & Valve DB shall belocated at BMCC room of TG Building.
1278	TECHNICAL SPECIFICATIONS SECTION VI, PART-B	SUB-SECTION : B-03 VFD	-		VFD	Bidder clarify that VFD of coal feeder , RAPH and sootblower will be as per proven OEM design	Bidder proposal is acceptable which is inline Technical specification.

Sr. No.	Section / Part / Chapter / Volume	Sub Sec	Clause No.	Page no.	Bid Specification Stipulation	Bidder's query	Owner's Reply
1279	TECHNICAL SPECIFICATIONS SECTION VI, PART-B	SUB SECTION-B-2 MOTORS	-		Motors	This specification is not fully applicable to BCP motor which is being a wet motor is special kind of motor & will be as per vendor standard. BCP motor which will be a HT motor, without any winding & bearing temperature detectors, the class of insulation for the BCP motor will be class Y. It will be water cooled and water filled, wherein the bearing and the windings both will be water cooled, bearings will be water lubricated as well. Space heater for the BCP motor will not be applicable as it is a wet type motor.	Bidder proposal is not acceptable. Bidder to provide protection and monitoring devices , RTD, termometer, flow switch etc as per the system requirement and as per the specifications and same shall be discussed during detail engineering.
1280	TECHNICAL SPECIFICATIONS SECTION VI, PART-B	SUB SECTION B-06 LT SWITCHGEARS & LT BUSDUCT	-		LT SWITCHGEARS & LT BUSDUCTS	Bidder has considered Soot blower MCC, which consists of Two Incomer with electrical contactor operated changeover facility. The Soot Blower motor is having maximum rating of 1.1KW. As per SB operation, maximum of Two No's of Soot blower can be operated at a time and load consumed is 2.2 kW maximum. The soot blower MCC incomer rating is only 32A. Bidder has considered sootblower MCC in boiler platform located at RHS & LHS of boiler. Hence, bidder shall be allowed to consider the MCCB type incomer with electrical contactor operated changeover facility.	Soot Blower MCC shall be installed at BMCC room located in TG building. The MCCB type incomer with electrical contactor operated changeover facility is acceptable.
1281	TECHNICAL SPECIFICATION SECTION – VI, PART-B	Sub Sec A-02 4.01.01 e	4.01.01 e	9 of 65	Steam Generator casing/pent house shall:Be provided with boiler roof arrangement of proven design & architecture. The boiler main roof arrangement shall be provided with monitor for ventilation and light. The overlap between the monitor and the main roof should be such that it prevents ingress of rain to the.....	NTPC shall clarify exact requirement for the following The boiler main roof arrangement shall be provided with monitor for ventilation and light.	The boiler main roof arrangement shall be provided with arrangements for monitoring, ventilation and light. Further bidder to refer cl. 7.00.00, SS-II-A-01, part-A.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1282	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) Since the Specification is sketchy and intention of NTPC is not coming out from the specification, Bidder request Owner to inform if the requirement is to provide Digital twin i.e. replica of the actual proposed major equipments of Boiler, Turbine, Generator, AHP, CHP in AR/VR mode. Please confirm. b) Bidder request Owner to confirm that training model is required only for Major equipments of Boiler, Turbine, Generator, AHP, CHP and not for all the equipments. Please confirm. c) Bidder request Owner to confirm if total 5 nos. VR workstation, 5 nos. VR goggles, 5 nos. Joysticks, 5 nos. License are required. Please confirm. d) Bidder request Owner to inform if training on dismantling, overhauling, and re-assembling modules up to its last sub-component shall be using hardware such as VR goggles, Sensors, Joysticks, VR workstation. Please confirm. e) Bidder wish to inform that development of AR/VR based training models requires 3D models of internal components also. As per discussions with various equipment suppliers (Including AHP & CHP) 3D models of the internals cannot be provided by them. However, to meet the Customer expectations, Bidder will try to develop AR/VR based training model only for Bidder's inhouse manufactured major equipment as listed below, on best effort basis: 1) Steam Generator: Coal Pulveriser, Air Preheater (APH), Axial Fans (PA,FD, ID), Coal Burner and Boiler Soot blower 2) Turbine: Main Turbine (HP/IP/LP) 3) Generator	a) Bidder's understanding is not correct. Bidder to note that specification under the referred clause is given functional, with clear mention of the intent of requirement. The intent is to create an exact replica training model of the target equipments. Please also refer NTPC's Clarifications on similar query vide query no. 578 of lot 4. b) Bidder understanding is correct. c) The quatity of all hardware, software and licenses are five number (5 nos) each. Please also refer NTPC's Clarifications on similar query vide query no. 578 of lot 4. d) Kindly refer reply given in query no. 578 of Lot 4 and also point c above. e) Bidder's understanding is not correct. All major equipment shall be considered in the model. However the exact count of the same shall be finalized during detailed engineering.
1283	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIC CONTROL & INSTRUMENTATION	17 of 18	21.00.00	a. IIoT Solutions for Real-time Equipment and Process monitoring and for condition monitoring	a) Bidder understands that 16 nos. vibration sensors & 16 nos. Temperature sensors shall be permanently installed on non-critical equipment (LT drives) which are not considered in Vibration monitoring system. Please confirm. b) Bidder understands that 32 nos Portable Wireless vibration sensors and 32 nos. Portable Wireless Temperature transmitters shall be provided which are not permanently mounted on any equipment. Please confirm. c) Bidder understands that there is no requirement of Vibration analysis for these IIOT solution and only vibration/temperature measurement readings collected from IIOT sensors are to be monitored. Please confirm. d) Bidder understands that viewing shall be web browser based on Owner's PC and no separate workstation is required for IIOT sensor monitoring. Please confirm.	a) Bidder understanding is correct. b) Bidder understanding is correct. c) Bidder understanding is correct. d) Bidders understanding is correct. Bidder to also follow Clause 2.00.00,General Solution Outline, Sub–Section IIIC - 18, Part B.
	TECHNICAL SPECIFICATIONS SECTION – VI, PART-B BID DOC. NO. CS- 4540-001A-2	SUB-SECTION-IIIC-18 IIOT, DIGITAL HELMET AND AR/VR MODEL	1 of 2	1.1	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.		
1284	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO. CS- 4540-001A-2	Annexure C to IIC Contract quantity	24 of 24	O	Latest technology based Wireless Infrastructure for main plant area (exact area to be finalized during detail engineering)	a) Bidder understands that Wireless infrastructure is required only for connectivity of IIOT sensors and Digital Helmet. Please confirm. b) Bidder understands that the wireless coverage is required only for Boiler area, TG Building and CW pumphouse. Please confirm.	a) Bidder understanding is correct. b) Bidder understanding is correct.
		SUB-SECTION-IIIC-18 IIOT, DIGITAL HELMET AND AR/VR MODEL	1 of 2	1.3	Industrial Wireless Network:		
1285	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIC CONTROL & INSTRUMENTATION SYSTEM	6 of 18	2.03.02	Same make DDCMIS is to be provided for all DDCMIS systems indicated above including control system for SG, TG & BOP systems of Unit DDCMIS defined above.	It is not recommended to use unproven Control system for STG. Turbine Control System (TCS) and Turbine Protection System (TPS) are provided by OEM based on their long experience in various Thermal Power Plants. For Other DDCMIS (SG, BOP, FGD etc.), Bidder shall provide same make. In view of above, Bidder proposes that Make of TG DDCMIS may be different than the make provided for other DDCMIS (SG, BOP, FGD etc.). However, Bidder will provide Unified HMI. Request NTPC's acceptance.	Bidders proposal is not acceptable. Bidder to comply specification requirement.
1286	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A BID DOC. NO.:CS-4540-001A-2	SUB-SECTION-IIC CONTROL & INSTRUMENTATION SYSTEM	17 of 18	22.00.00	Make of IP based CCTV camera and VMS under scope of this package (CCTV system for O&M and CCTV system for safety control room) shall be same.	1) Bidder wish to clarify that CCTV for Safety shall be ordered at very initial stage of the project and by that time specifications of CCTV for O&M shall not be ready. Readiness of specification of CCTV for O&M requires Finalized plot plan, Building layouts, GA drawings etc. which will take sufficient time. Hence, make of CCTV for Safety and CCTV for O&M may not be same. 2) Bidder request Owner to provide specification of various items for CCTV for Safety viz. Camera, Server, workstations etc.	1) Bidder proposal is not acceptable. Bidder to meet specification requirement. Make of CCTV system for O&M and CCTV system for safety control room should be same. 2) Bidder to refer Part B for specification of various items.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1287	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 shall ensure all its OEM/suppliers must affix RFID tags/Trackers on the item & punch the same before dispatch with RFID reader/BLE beacon & enter details of item associating with RFID tag no./Tracker no. **For low value items QR code-based solution shall also be acceptable.** Exact selection of type of tagging based on type & size of equipment/consignment/package will be decided during detail engineering.	a) Since "low value item" is not defined, Bidder may consider the low value items as per Bidder's understanding. Please confirm. b) Bidder shall consider RFID tagging for ODC items which are high value items and for balance low value items QR code based solution shall be provided. Please confirm.	Bidders understanding is not correct. RFID tags/Trackers with RFID reader / BLE beacon is to be provided for all the items. As an exception for some of the low value items, QR code shall be acceptable subject to Employers approval during detailed engineering.
1288	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	a) Bidder understands that requirement of SPMS workstation and user license is to be based on Bidder's design. Please confirm. b) Since there is no requirement from Owner, Bidder shall consider 1 no. workstation and 1 user license for SPMS.	a) Bidders understanding is correct. Hardware and software proposed should meet requirement mentioned in Annexure-B to subsection IIC, part A. b) Bidders understanding is not correct. Detail requirements for SPMS and its subsystem has been specified in Annexure-B to subsection IIC, Part A. The requirement of license shall include all the system / sub system as mentioned in the above annexure. Also refer 7.00.00, Annexure-B to subsection II C, Part A for Hardware and software requirement.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1289					General	Owner is requested to allow selective utilization of pond ash for backfilling in low lying areas within the plot area of Stage III TPS.	Backfilling using pond ash is not allowed
1290	Section VI, Part B	D-I-2 (I)	1 of 4	Annexure - (I)	This section covers general guidelines and activities to be undertaken by the EPC contractor for using abandoned ash dyke as a Lay down area. An area of 70 acre (approx.) (16 Acres + 24 Acres +30 Acres) indicated in Annexure-J as Area 'A', 'B'& 'C' has been identified for this purpose.	Bidder requests Owner to allow alternative laydown area within 20 km radius from plant boundary with proper fencing & security to avail the payment linked with "receipt" of material/equipment under Supply contracts. Please confirm.	Bidder to refer Amendment no. D1-36 and D1-37
1291	Section VI/ Part-B	Sub section- D-1-5 Sub section- B-10 Sub section- G-03	8 of 120 4 of 21 10 of 15	5.02.08 3.02.05 1.03.00 (39) (ii)	The level of the bottom chord (bottom of steel) of the gallery shall be at least 3.0m above the finished paving level in general. The bottom of the steel supporting structure shall be generally at 3.0M above the grade level except for rail/road crossings where it shall be at 8.0M above grade level. In the outlying area, pipe and cables can be routed on trestle with headroom of 2m or on pedestals	Bidder understands that pipe / cable trestle In the outlying area, pipe and cables can be routed on trestle with headroom of 2m or on pedestals inline with Layout requirement. Please confirm bidder understanding.	Bidder understanding is correct . Unless otherwise specifically height requirement of trestle is mentioned .
1292	Section VI/ Part-B	Sub section- D-1-5	37 of 120	5.05.09	All ash handling system/ ash water recirculation system pipe crossings with Railway Lines including MGR lines shall be laid by method excepted by concerned railway authorities for existing rail lines & by cast in situ RCC box culvert for future envisaged rail lines.	a) Bidder understands that over head crossing of Stage III ash slurry pipes shall be considered for existing railway lines. Similar scheme was also followed for existing stage-I and Stage-II ash pipes. Please confirm. b) Further, Owner is requested to provide location details of future envisaged rail line crossings for estimating RCC box culvert quantities. Please confirm.	a) As per Clause no 5.05.09 ,All ash handling system/ ash water recirculation system pipe crossings with Railway Lines including MGR lines shall be laid by method "accepted" by concerned railway authorities for existing rail lines & by cast in situ RCC box culvert for future envisaged rail lines. The railway track crossings are to be designed in accordance with railway Standard/RDSO guidelines and all necessary approvals from the concerned Railway authorities shall be obtained by the Bidder, without any financial implications to the owner b) This shall be dealt during detail engineering
1293	Section VI/ Part-B/	Sub section- D-1-5	11 of 120	5.02.09	Inside the main power house building, brick masonry wall (and fire proof doors) shall be provided for switchgear rooms, cable spreader rooms, MCC rooms, AHU rooms, Air Washer room & Oil rooms and all other rooms where fire protection is envisaged.	As per specification, modular type air washers are envisaged. In view of this, Bidder understands that air washer room inside main power house is not applicable. Please confirm Bidder's understanding.	Bidder`s understanding is correct.
1294	Section VI/ Part-B	Sub section- D-1-9	1 of 31	9.03.01	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	Bidder shall consider the make of service water tank as PVC / Polyethylene inline with past project. RCC service water tank at roof of buildings is not envisaged. Please confirm.	**Bidder to refer Amenedment no. D1-18**
1295	Section VI/ Part-B/	Sub section- D-1-9	2of 31		All buildings shall have minimum one toilet block each.	Toilet block shall be decided based on no of users, presence of operation staff during normal condition etc. Please confirm	Bidder is requested to follow technical specfication.
1296	Section VI/ Part-B/	Area Drainage study report	7-12		Catch drains and foot drains shall be provided to safely discharge the storm runoff to natural drains (tributaries of Bangaru nala). Local drainage is controlled by a small seasonal nala flowing northerly in the western part of Jagannath block	Road along ash garlanding pipes shall be constructed along with one sided drain and storm water runoff shall be discharged to mine void vide this drain. Hence no separate drainage arrangement shall be considered in mine void area. Please confirm.	Drains shall be provided as per technical specifications wherever required.

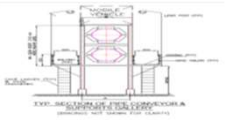
S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1297	Section VI/ Part-B/	Area Drainage study report	07-Mar	7.2	For each of the filled ash dyke (A, B, C, D, E, F) following conceptual drain design shall be followed. i) Low Height Peripheral Embankment: The dyke area will have a 1 to 3 m high earthen embankment around it.	a) Space is not available around existing ash dyke (A,B,C) for construction of peripheral embankment, toe drain etc. Hence Bidder shall consider temporary drainage arrangement as their layout and design requirement for laydown area. Please confirm. b) Drainage arrangement for remaining dyke (D,E,F) not included in EPC scope of work. Please confirm.	a) Bidder to follow technical specifications. b) Confirmed.
1298	Section VI/ Part-B	Sub section- G-03	12 of 15	1.03.00 (52)	Bidder to route ash slurry pipe lines on pedestal and pipe culverts shall be provided at rail/road crossings.	Bidder understands that existing Stage I and II ash pipelines are having over head road/railway crossings, therefore Bidder shall consider similar type of crossing for Stage III ash pipes also. In case Owner has envisaged culvert for Stage III ash slurry lines, then location details for the same may please be specified.	As per Clause no 5.05.09 ,All ash handling system/ ash water recirculation system pipe crossings with Railway Lines including MGR lines shall be laid by method accepted by concerned railway authorities for existing rail lines & by cast in situ RCC box culvert for future envisaged rail lines. The railway track crossings are to be designed in accordance with railway Standard/RDSO guidelines and all necessary approvals from the concerned Railway authorities shall be obtained by the Bidder, without any financial implications to the owner
1299	Section VI/ Part-B/	Sub section- A-01	38 of 101	1.05.22.01	In any case the height of the chimney above the plant grade level shall be at least 275 meters for Single-flue chimneys and at least 275 meters for Multi-flue chimney.	Since it Is wet chimney, bidder proposes to consider 150 Meters for single flue or 220 meters twin flue Chimney. Please confirm.	Bidder understanding is not correct. Bidder to comply the specification requirement of 275 meters height of chimney.
1300	Section VI/ Part-A	Sub section-III	3 of 3	5.05.00	The area will be handed over as is & where is basis	Please clarify meaning of "as is & where is basis" as demolition of superstructure is in Owner's scope of work.	Demolition of superstructure is also involved in some area. Please refer Cl 1.00.00 in Part-A
1301	General			GLP, 4540-999-POC-A-015, Rev 0	Raw water piping routed through stage I and stage II existing facility	a) Bidder understands that the raw water pipeline from raw water reservoir to PT plant of Stage III shall be routed in pedestal. Please confirm. b) Any existing facility fouling with the aforesaid pipeline route shall be demolished by Owner. Please confirm. c) Bidder understands that encumbrance free corridor for the raw water pipeline from raw water reservoir to PT plant of Stage III shall be made available on the date of NOA.	**a) Bidder to note that complete scope of work within plant boundary is in Bidder's Scope, so Biider is free to plan the routing either over pedestal / underground along the Raw Water Piping Corridor indiacted in GLP considering movement, roads and other interferences etc. In this regard Bidder to refer Clause 39 of Sub Section G3 of Part B and Clause 2.09.00 of Sub Section A-09 of Part B.** **b) Dismantling is in bidder's scope.** **c) Bidder to refer Cl. 5.00.00 of Section Vi, Part-A, Sub-Section-III.**
1302	VI/Part-B	Sub-sec-D-1-5	55 of 120	5.17.01.02.04	c) The columns shall be designed based on working stress method except for the forces from DL+1.5 WL which shall be designed as per limit state of strength method of IS:456.	We understand that racker column shall be designed based on the working stress method (considering allowable steel stress 275MPa) as per IS 456 and limit state method as per IS 456. No separate steel stress limit for crack width control or crack width check is required. Kindly confirm	Bidder's query is not clear. Bidder to follow technical specifications.
1303	VI/Part-B	Sub-sec-D-1-5	55 of 120	5.17.01.02.06	(a) The design of all liquid retaining / conveying structures of cooling tower like C. W. basin , sump , outlet channel , sludge drain , pits and pedestals for raker column shall be designed by working stress method as outlined in Clause 4.5 of IS: 3370 (Part 2) : 2009.	As per latest IS code IS: 3370 (Part 2) -2021 , the design of all liquid retaining / conveying structures shall be done in accordance with limit state method. So no working stress design method is mentioned as per latest code. Please confirm whether we can use latest code IS:3370 (Part2) -2021 for design of all liquid retaining / conveying structures of cooling tower like C. W. basin , sump , outlet channel , sludge drain , pits. Kindly confirm. Also the pedestal of raker column is outside of basin area . So design of pedestal of raker column shall be done in accordance with limit state method of IS:456-2000 same as Tower shell supporting foundation and not as per latest code IS:3370 (Part2) -2021. Please confirm .	Bidder to follow provisions of Technical Specifications.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1304	VI/Part-B	Sub-sec-D-1-5	55 of 120	5.17.01.02.06	(b) The design of all structures other than liquid retaining/conveying structures of cooling tower above Cold Water basin slab such as Raker Columns, Shell structure, fill/drift eliminator support columns, beams, walkways, slabs, partition wall, precast beams etc. shall be carried out by limit state method as outlined in Clause 4.4 of IS: 3370 (Part 2). Further, for limiting the crack width, the stress for the reinforcement steel shall be limited to 130 MPa (on all faces) as per clause 4.4.3.1 of IS: 3370 (Part 2): 2009 using the partial safety factor for serviceability condition as per clause 4.4.1.3.	a) As per IS 3370(Part2):2021 , Cl.No. 4.3.1, "Structural elements that are not exposed to retained liquid shall be designed in accordance with IS 456 and IS 1343, as applicable." Hence, Structures of cooling tower above Cold Water basin slab such as Raker Columns, Shell structure, fill/drift eliminator support columns, beams, walkways, slabs, partition wall, precast beams etc. shall be designed by limit state method as per IS 456 and no stress limit in steel is required to control crack width. kindly confirm the design methodology. b) Raker columns design procedure in CL.No. 5.17.01.02.04 (in Sl.No. 3) & 5.17.01.02.06 (in Sl.No. 4) are contradictory. Kindly clarify which one to be adopted.	a).Bidder to follow provisions of Technical Specification b). There is no contradiction in Specification. Bidder is requested to refer Clause No. 5.17.01.02.06 for raker column design and CL.No. 5.17.01.02.04 for raker column pedestal design
1305	VI/Part-B	Sub-sec-D-1-5	113 or 120	5.29.00	Owner's Construction Office The floor area for Owner's Construction office shall be 1025 sqm. The building should be as per the tender drawing.	Tender drawing indicates floor area of 1400 sqm whereas 1025 sqm mentioned in tender specification. Owner to kindly clarify.	Floor area of Owner's Construction office shall be 1025 sqm.

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1306	SECTION-VI, PART-B	SUB SECTION B-05(A) MV SWITCHGEAR	3.00.00 (h)	6 of 7	Wireless temperature monitoring system to be provided and same shall be integrated to DDCMIS/ separate HMI. Position of such sensors shall be decided at the time of detailed engineering.	Bidder proposes that the position of temperature monitoring sensors shall be as per OEM design. Each phase shall have one sensor irrespective of no. of cable runs. Owner may please confirm.	Temperature sensor shall be installed in all relevant joints, contact points etc. as per the standard OEM Practice.
1307	SECTION-VI, PART-B	SUB SECTION B-06 LT SWITCHGEARS & LT BUSDUCTS	2.03.00	3 of 18	5) Horizontal Busbar & Jumper Connection: High Conductivity Aluminium Alloy/Copper 6) Vertical Busbar: **Copper Only**	There are very limited supplier available who can supply product with vertical copper busbar, and those supplier having vertical aluminium alloy busbar design are not qualifying. Bidder proposes to provide Aluminium Alloy conductor for both Horizontal and Vertical Busbar of LT Switchgear as per standard industry practice. Owner may please confirm.	only Copper vertical busbar shall be accepted. Bidder must comply the specification.
1308	SECTION – VI, PART-B,	SUB-SECTION-IIIC-19 ROBOTICS BASED CLEANING OF CABLE TRAYS	1.00.00	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	Owner specified following probable supplier for "Robotics Based Cleaning of Cable Trays" during prebid meeting: 1. Mitsubishi 2. Hyundai 3. ABB 4. GE 5. Rockwell 6. Yokogawa 7. Boston Dynamics Bidder has discussed with manufacturers to check the availability of product and solution for "Robotics Based Cleaning of Cable Trays", however it is found that none of the above mentioned suppliers are having the same. Also, there are no such references available where similar item was installed in thermal power plant across the world. Since, the product and solution for "Robotics Based Cleaning of Cable Trays" is not available commercially with any of the supplier, Bidder request to delete the requirement of "Robotics Based Cleaning of Cable Trays" from tender specification.	Bidder proposal is not acceptable Bidder to comply 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
1309	SECTION – VI, PART-B	SUB-SECTION-B-17 SWITCHYARD	2.09.00	11 of 60	The enclosure shall be manufactured and tested according to the pressure vessel code (ASME/CENELEC code for pressure Vessel.)	1. Bidder would like to clarify that material codes shall be country based codes as per OEM design. 2. As recommended by OEM, all pressure test for enclosures shall be conducted as per Cl. 6.103-IEC 62271-203:2011. Owner may please confirm.	Bidder shall comply the clause no: 2.09.00 of Sec-VI, Part-B, chp-17 of specification.

Sr. No.	Section / Part / Chapter / Volume	Sub-Section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
1310	TECHNICAL SPECIFICATIONS SECTION – VI, PART-A	SUB-SECTION-IV FUNCTIONAL GUARANTEES	1.01.07.01	18 of 73	1.01.07.01 - Unit Auxiliary power consumption ad) FGD System --	NTPC may please note that, in NTPC Lara & Singrauli projects, FGD bypass damper seal air fan and heater have been included by NTPC in the list of "continuously running auxiliaries" for aux. power consumption guarantee vide Amendment#1. However, in current NTPC Talcher EPC tender, FGD bypass damper seal air fan and heaters have not been included in the list of "continuously running auxiliaries" for aux. power consumption guarantee. NTPC is requested to update the list of "continuously running auxiliaries" for Talcher project in line with Lara/Singraul project. Further, since current list of "continuously running auxiliaries" does not include FGD bypass damper seal air fan and heaters, Bidder understands that the current limit of Unit aux. power guarantee as mentioned in sr.no. (x) of cluase 1.01.02 of SUB-SECTION-IV SECTION – VI, PART-A, does not include the above mentioned auxiliaries. Hence, NTPC is requested to issue an Amemdment updating the limit of Unit Aux. power guarantee to include FGD bypass damper seal air fan & heater.	Bidder to note that while guaranteeing the auxiliary power consumption the bidder shall necessarily include all the continuously operating auxiliaries. The auxiliaries indicated in the list are minimim requirement and any continuous operating auxiliaries shall be included in the Guarantee Aux power consumption in line with the specifications.
	NTPC Lara Singrauli: Amendment#1		M/25 VII/4 IV 31 of 93 1.01.08 .01 ae)		..... viii. Booster Fans in case Booster Fan is provided by the Contractor.	..... viii. Booster Fans in case Booster Fan is provided by the Contractor. ix. Seal air fan & heater for FGD bypass damper.	
1311	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	3.03.01	5 of 28	**.....Motorized Guillotine type gates** shall be provided at (i) hot gas inlet to Absorber (in case booster fan is not provided by the bidder) and **(ii) cold gas outlet from Absorber.**	As per specification requirement NTPC has asked for Guillotine type gates at absorber outlet duct & Quick opening Bi-plane damper in bypass dcut. Bidder want to clarify that their is a huge gap between opening & closing time of Quick opening Bi-plane damper & Guillotine damper. if we provide different type of dampers in absorber outlet and bypass duct than during emergency condition (i.e FGD in Bypass operation) there is a possiblity to pass the hot flue gas in the absorber side and damage the absober internals including mist eliminator. In view of the above concern, bidder request NTPC to kinldy review the requirement of Guillotine gate damper or Bi-plane damper at absorber outlet based on their plant operation experience to protect the absorber internals incluidng Mist eliminator and issue a necesary amendment for consideration of quick closing Bi-plane damper instead of Guillotine gate at absorber outlet or both quick opening Bi-plane damper & Guillotine gate dampers at absorber outlet.	Bidder to ensure that absorber and its internals remain protected in all cases of operating conditions/ scenarios. The guillotine gates are envisaged to esnure the abosrber maintenance as well as protection during O&M. In case bidder's require to have additional bi-plabe damper to ensure the protection of absorber inernals then they have to provide the quick opening damper in addition to the gates at absorber (inlet & outlet). Accordingly, bidder to ensure that if quick acting biplane damper is required to be provided at absorber (inlet & outlet) then bidder to provide the same , in addition to the guillotine gates, based on the specific design adopted.
	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB-SECTION-A-05 (FGD)	3.03.02	5 of 28	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.		

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1312	Section VI/ Part-B/ Sub section- A-16	1 of 7	1 of 7	1.04.00	Dedicated air receivers shall be provided to meet the instrument air requirement of ash handling System.	Owner is requested to please provide the location of ash handling system instrument air receiver.	Bidder shall decide the locations of Instrument air receivers for ash handling system during detail engineering, compling functional requirement in line with Technical specifications.
1313	Section VI/ Part-E / 4540-001-POM-A-041			Cross Country Coal conveyour Routing from NTPC Plant to coal wine area	2. PIPE CONVEYORS AND UNITS/PREMISES AT MINE END INDICATED ON THE DRAWING IS TENTATIVE.THE SAME SHALL BE FINALIZED AFTER SURVEY WORK AND TIE–UP WITH MCL. 3. SILO LOCATION AT MINE END IS TENTATIVE AND DISTANCE OF SILO FROM PLANT END MAY VARY UPTO 5% IN ANY DIRECTION. TROUGH CONVEYOR LENGTH UPSTREAM OF SILO IS ALSO TENTATIVE AND MAY VARY UPTO 5% IN ANY DIRECTION. NO ADDITIONAL CLAIM SHELL BE ENTERTAINED FOR THE ABOVE VARIATION 4. NUMBER OF PIPE CONVEYORS INDICATED ARE TENTATIVE. BIDDER MAY OPTIMIZE NUMBER OF PIPE CONVEYORS BASED ON THE TECHNICAL FEASIBILITY. BIDDER HAS TO PROVIDE MORE NUMBER OF PIPE CONVEYORS, IF REQUIRED.HOWEVER PROVISION SHALL BE THERE AT ETP–2 FOR POSSIBLE COAL RECEIVE FROM JAGANNATH AREA.	Bidder understands that "Note No. 2, 3 & 4" are not relevant to scope of work in Talcher EPC Stage III tender. Please confirm bidder understanding.	Confirmed. Referred drw. have been withdrawn from Technical Specification. Amendment No : A-MH-1
1314	Section VI/ Part-E /	4540-001-POM-A-041 'Cross Country Coal conveyour Routing from NTPC Plant to coal mine area			5. NECESSARY HEADROOM SHALL BE PROVIDED BELOW PIPE CONVEYOR AT ROAD/RAIL/RIVER CROSSINGS. NECESSARY CLARENCE OF CONVEYOR STRUCTURE WITH THE HT/LT LINES TO BE PROVIDED.	Since complete Conveyor system is not in Bidder scope of work, Owner is requested to delete this Note from drawing.	Cross-country coal conveyor is not in the scope, hence refererred Drw. have been withdrawn. Amendment No : A-MH-1
1315	Section VI/ Part-E /	4540-001-POM-A-041 'Cross Country Coal conveyour Routing from NTPC Plant to coal mine area			6. ASH SLURRY AND AWRS PIPES SHALL BE ROUTED BELOW PIPE CONVEYOR GALLERY WHERE SEPARATE SPACE FOR SLURRY CORRIDOR IS NOT AVAILABLE. CROSS–OVER SHALL BE PROVIDED AT CAGE LADDER LOCATIONS FOR CROSSING SLURRY OF PIPES. 	Owner is requested to provide the following pointwise details/confirmation as complete external coal handling is not a part of Bidder scope of work. 1. Space requirement for proposed pipe conveyor 2. Cross section indicating Employers' pipe Conveyor and ash slurry piping & AWRS piping 3. Support location of employer pipe conveyor 4. Load data of employer pipe conveyor wherever combined foundation is envisaged by Owner. 5. Additional space with ROW for parallel running of conveyor and AWRS/Ash slurry lines. 6. Please clarify the scope of foundation in case of combined structure of conveyor and ash slurry piping 7. No electrical load provision in transmission line of AWRS system (from Plant to mine void) is considered for external coal handling system by Bidder.	External Coal Handling Plant is not part of the Scope of work. Hence 1.Only Space provisions shall be kept along with Ash slurry & AWRS Corridor in line with 4540-001-POM-A-030.. 2. Shall be explored furing detail engineering. 3. Support locations (if required) shall be provided during detail engineering. 4.Combined foundations is not envisaged.. 5.Space shall be as per the detail survey carried out by the successful bidder during execution. 6. Combined structure shall not be considered. 7. No electrical load of external Coal handling system shall be considered on transmission line coming under the Package.
1316	Section VI/ Part-B/ Sub section- A-12	1 of 12	1 of 12	1.00.00	HVAC to be provided considering " GREEN BUILDING" for following buildings. 1. Service building 2. Admin building c. Canteen Building	Requirement of Green building is not specified in Civil scope of work. Owner is requested to please confirm weather GREEN Building to be considered for HVAC design for Service, Admin and canteen building.	Certification of referred buildings as "Green Building" has not been envisaged. However, Bidder to comply with specification requirements regarding mechanical/ electrical/civil/C&I aspects as specified.
1317	Section VI/ Part-B/ Sub section- A-17	23 of 30	23 of 30	8.02.00	Air washer units shall be started/stopped by initiation from Main DDCMIS based control system of A/C plant (provided by contractor) for Main plant area and ESP/FGD/AHP control rooms. Starting/stopping of pumps shall be automatic upon such initiation.	As per tender scope of HVAC, Air washer /UAF is not envisaged for AHP control rooms, hence, Bidder understands that Air washer units as mentioned in referred clause is not applicable in AHP control building. Please confirm Bidder's understanding.	Bidder's understanding is correct that air washer /UAF units have not been envisaged for ventilation of AHP control control building.
1318	Section VI/ Part-B/ Sub section- A-18	1 of 15	1 of 15	2.00.00	Hydrant system shall consist of hydrant pumps, pressurization arrangement, water mains network, hydrant valves, landing valve, water monitors, hoses, branch pipes, nozzle, hose boxes, central hose houses etc.	Center hose house is not envisaged in out door area as per practice followed in NTPC projects. Hence, Hose box shall be considered for outdoor area. Please confirm acceptance.	Hose Boxes/Central Hose houses shall be provided as per TAC guidelines. Bidder to comply with requirements of technical specification.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1319	General				Coal Shed Fire protection system	Bidder has envisaged only outdoor hydrant / water monitor system for coal shed. Also, Stacker cum reclaimer water spray system shall be provided as per technical specification requirement. Owner to please confirm.	Indoor hydrants shall also be provided for Coal Shed. Bidder to comply with requirements of technical specification.
1320	Section VI/ Part-B/ Sub section- A-18	1 5of 15	1 5of 15	Annexure-II	In case of front mill configuration, fire water spray booster pumps shall not be provided if found not required during detailed engg. However, in that case, TDH of main spray shall be 120MWC (minimum).	Bidder requests Owner to allow option to consider spray water pump with 105 mWC and booster pump as an alternate to only main spray pump in case of front mill arrangement. Please confirm acceptance.	Bidder to comply with requirements of technical specification.
1321	Section VI/ Part-B/ Sub section-D-1-5	113 of 120	113 of 120	5.27.00	The number of fire tenders shall be provided as per CISF norms. The number of fire tenders/equipments shall be provided as given in else where in specication.	No fire tender scope is mentioned in fire protection system scope of work. Owner is requested to please clarify on scope of work for fire tender / equipments and provide detail specification for the same.	Fire tenders & fire station equipments have not been envisaged in subject package.
1321	Section VI/ Part-A/ Sub section-III	3 of 3	3 of 3	5.10.00	Stage-III Rreservoir and PT Plant to be made ready before dismantling of existing stage-II reservoir and PT Plant.	Owner is requested to please clarify / provide input for following. 1. Availability of Power supply for Stage-III Raw water pumps and PT plant during initial operation 2. As ash slurry pump will not be ready during initial operation of stage-III PT plant, sludge disposal arrangement during those period 3. Chemical consumption scope , O&M during initial operation of Stage-III PT plant 4. Readiness of ClO2 plant requirement and its chemical consumption during initial operation 5. Fire protection requirement of PT plant when Stage-III fire protection system is in construction phase.	1. All of these are in Bidder scope and bidder to decide accordingly. 2. All of these are in Bidder scope and bidder to decide accordingly. 3. All of these are in Bidder scope and bidder to decide accordingly. 4. All of these are in Bidder scope and bidder to decide accordingly. 5. Fire Detection & Protection System of entire project including Stage-III PT plant area/equipments/buildings is in the scope of the Bidder. Bidder to comply with specification requirements.
1322	Section VI/ Part-A/ Sub section-III	3 of 3	3 of 3	5.10.00	Stage-III Rreservoir and PT Plant to be made ready before dismantling of existing stage-II reservoir and PT Plant.	As ash slurry pump will not be ready during initial operation of stage-III PT plant, Owner is requested to clarify the sludge disposal arrangement during those period.	All of these are in Bidder's scope & Bidder to decide accordingly.
1323	Section VI/ Part-A/ Sub section-III	3 of 3	3 of 3	5.10.00	Stage-III Rreservoir and PT Plant to be made ready before dismantling of existing stage-II reservoir and PT Plant.	Owner is requested to please clarify the scope of chemical consumption and O&M during initial operation of Stage-III PT plant and PT CLO2 System.	All including chemical consumption are in Bidder scope.
1324	Section VI/ Part-A/ Sub section-III	3 of 3	3 of 3	5.10.00	Stage-III Rreservoir and PT Plant to be made ready before dismantling of existing stage-II reservoir and PT Plant.	As Stage-III, fire protection system shall be in construction stage during initial operation, Owner is requested to clarify the fire protection requirement and arrangement of Stage-III PT plant for that duration.	Fire Detection & Protection System of entire project including Stage-III PT plant area/equipments/buildings is in the scope of the Bidder. Bidder to comply with specification requirements.
1325	Section VI/ Part-A/ Sub section-IV	38 of 73	38 of 73	1.03.14	Turbidity : less than 10 NTU	With inlet Turbidity of 2000 NTU as mentioned in tender specification by Owner and treatment envisage by Owner, Outlet guaranteed turbidity of less than 10 NTU at outlet of clarifier may not be possible. In view of above higher turbidity , Bidder requests Owner to suggest treatment scheme/ Equipment considering 2000 NTU inlet and less than 10 NTU outlet turbidity for clarifier to keep all Bidder's at par.	Bidder to design the complete Pre-treatment system for the specified inlet turbidity of 2000 NTU while guaranting the outlet turbidity from the clarifier as less than 10 NTU in line with specification requirement. Bidder shall provide additional treatment system,if any, required to meet the guarantee.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1326	General					Bidder understands that make up water for Stage -III reservoir during initial operation will be available from Stage-I / Stage II make up water system till the readiness of Stage-III make up water system. Please confirm Bidder's understanding. Also, Owner is requested to furnish the make up water analysis of existing stage-I & II plant for treatment of the same in Stage -III PT plant.	Bidder's understanding is not correct. All the facilities should be made ready and available before initial operation of Stage -III. Bidder to note that make up water analysis is same as raw water analysis provided in specification.
1327	Volume VI/Part-A/	Sub-sec IIA-11	2 of 4	1.02.01 (10)	Flushing lines with davit type valves in each branch at the end of hot water distribution pipes to enable removal of debris from the system at the start of commissioning.	Bidder understands that a suitable flushing provision need to be provided at the hot water riser pipes (two (2) nos per tower before the isolation valves. So that during commissioning the isolation valve shall be closed and the circulating water shall be diverted to the CW basin. This will avoid foreign particles entering the water distribution network and the fill media. Kindly confirm.	Bidder's understanding is correct.
1328	Volume VI/Part-B/	Sub-sec A-15	12 of 31	8.00.00	Inlet Louvers	Please note that the inlet louvers are not applicable in NDCTs. To avoid splashing of water outside the cold water basin, the cold water basin diameter shall be provided suitably. Owner to confirm the bidder's understanding.	Louvers are also applicable for NDCT. However, bidder has the alternate option to avoid water loss as specified.
1329	Volume VI/Part-B/	Sub-sec A-15	13 of 31	10.00.00 (2)	Provision shall be made for easy flushing or cleaning of all troughs/pipes	End cap shall be provided in each of the hot water distribution pipes to enable flushing. Owner to confirm the bidder's understanding.	Bidder's understanding is correct.
1330	Section VI/ Part-B/	Sub section- A-09	15 of 19	2.17.02	Design of all vertical atmospheric storage tanks containing water, acid, alkali and other chemical shall conform to IS:803 & API 650.	Bidder will consider design of vertical atmospheric storage tanks considering IS 803 / API 650.	Noted. Bidder to refer Clause 2.17.01 of Sub Section A-09 of Section VI Part B, which mentions " as the case may be".
1331	Section VI/ Part-E /	4540-001-POC-A-007			Raw water Reservoir Layout 1200 mm dia pipe indicated at outlet of Reserovoir to pump sump	Bidder proposes to consider close channel from Raw water reservoir to Raw water pump sump inline with past executed project Please accept.	Bidder to comply with provisions of technical specifications.
1332	Section VI/ Part-B/ Sub section-G-07		1 of 2	2.00.00	Auto Archive of drawing Category mention as AA in MDL	Bidder understands that Category mentioned as AA is auto archive of drawing. Please confirm Bidder's understanding. Further, Bidder understands that particular drawing in AA category or A category shall be decided by the Bidder. Please confirm Bidder's understanding.	Bidder`s understanding is correct for AA Category i.e Auto Archive. Bidder understanding is not correct regarding drawing in AA Category or A category, this shall be decided by the owner as already specified.
1333	Section VI/ Part-B	Sub section- D-1-12-1	1 of 4	1.02.00	Suitable measures to avoid fugitive dust emission shall be adopted within the preassembly area and adjoining area.	Owner is requested to provide scheme for fugitive dust emission system envisaged in laydown area.	Fugitive dust emission scheme has to be developed by the Bidder.
1334	Section VI/ Part-B	Sub section- D-1-12-1	1 of 4	1.7.0	In order to meet Construction Power requirement for this area and construction water, the EPC Contractor shall make its own arrangement.	Bidder proposes to consider construction water from Stage-II PT plant Please confirm . Further, Owner is requested to please provide routine and ROW for construction water from plant boundary to proposed laydown area.	Bidder to refer Cl 2.02.00 of Section VI, Part-A, Sub-Section-IID for clarity.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
1335	SECTION – VI, PART-E	4540-001-POM-A-021	PAGE 31 OF 31	LIST OF TENDER DF	Refer specification for terminal points and exclusion as marked in P&ID (4540-001-POM-A-021)	Details has not been provided in terminal points and exclusion section. Please confirm the location of terminal point for waste water pump outlet.	FGD waste water to discharged into ash disposal slurry sump
1336	SECTION-VI, PART-A	SUB-SECTION-III	Page 1 to Page 3	NA			
1337	SECTION – VI, PART-A	SUB-SECTION-IIA-04	PAGE 1 OF 7	1.02.00			
1338	SECTION-VI, PART-A	SUB-SEC-TION-VI CHAP-TER-02 STEAM TURBINE GENER-ATOR	PAGE 31 OF 31	7	Control & Instrumentation Mandatory Spares for specific sub-systems such as hydrogen generation plant and Condensate Polishing Unit (if applicable), the spares shall be governed by the spares indicated against the corresponding specific clauses only.	No specific details have been provided for hydro-gen generation plant in tender specification. Fur-ther Qualifying Requirements for the Hydrogen Generation Plant has been strike-off. Please confirm whether hydrogen generation plant is applicable or not. If yes, please provide details of hydrogen generation plant.	Hydrogen Generation Plant has not been envisaged in subject tender.
1339	ATTACHMENT - 3K		PAGE 256 OF 411	NA	Sub-Qualifying Requirements for the Hydrogen Generation Plant		
1340	SECTION – VI, PART-B	SUB-SECTION B-0 GEN-ERAL ELEC-TRICAL	1 of 15	1.02.00	Under weak grid condition the minimum fault level of 2500 MVA shall be considered at 400 KV.	We understand that weak grid condition (with minimum fault level of 2500 MVA) shall be used for MD BFP starting simulation. Please confirm.	Bidder understanding is not correct. Bidder Shall be consider MDBFP and IDBFP starting simulation.
1341	SECTION – VI, PART-B	SUB-SECTION B-0 GENERAL ELECTRICAL SPECIFCIATION SUB SECTION-B-10 CABLING, EARTHING & LIGHTNING PROTECTION	9 of 15 10 of 21	3.06.00 (m) 4.04.15	Standard control cable sizes shall prefera-bly be 3CX1.5, 5CX1.5, 7CX1.5 & 10CX1.5 mm2 Minimum number of spare cores required to be left for interconnection in control cables shall be as follows: Minimum number of spare cores required to be left for interconnection in control cables shall be as follows: No. of cores in cable No. of spare cores 2C,3C NIL 5C 1 7C-10C 2 14C and above 3	We understand that control cable > 10 Core can be supplied by bidder (if required)	Bidder proposal is not acceptable. Bidder to comply with Standard control cable sizes shall be 3CX1.5, 5CX1.5, 7CX1.5 & 10CX1.5
1342	SECTION VI, PART-B	SUBSEC-TION-B-11 STATION LIGHT-ING	5 of 18	4.00.00 (6)	LED Luminaires shall be used for the lighting of all the indoor & outdoor areas in bidder's scope. However, for DC light-ing, hazardous areas & aviation lighting etc. conventional type luminaires shall be used	LED Luminaires shall be used for the lighting of all the indoor & outdoor areas in bidder's scope. However, for DC lighting, hazard-ous areas & aviation lighting etc. conventional type luminaires / LED luminaires can be used. Please confirm	Confirmed.
1343	SECTION VI, PART-B	SUBSEC-TION-B-11 STATION LIGHT-ING	8 of 18	4.00.00 (10	LP-3 : 1 No., 4A fuse 3 KVA transformer,40A TPN MCB	Kindly clarify where LP3 is envisaged to be used	Please refer B-10 annexure-I. Bidder to comply technical specifications.

1344	SECTION VI, PART-B	Sub Section IIB	Page 5 of 17	Sl. No. 1.08.00	Supply and installation of Robotic Tray Cleaning…..	Robotic tray cleaning system is not required & shall be excluded from scope of supply of bidder. Please accept.	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.
1345	VI / B	A - 01	97 of 101	4.03.06	Sizing grid shall be provided in mill reject pyrite hopper to remove mill reject of size >40mm. The mill reject systems shall be designed for input size of 40mm.	Sizing grid are not applicable for Mechanical type Mill Reject system as conveyor is designed to take care of higher size i.e. size >40mm rejects also	The details shall be reviewed during detail engineering based on the specific design of the system offered by the bidder.
1346	VI / B	A - 02	24 of 65	10.05.22	Mill reject system shall automatically discharge the tramp iron and other non-grindable material through an outlet connection at a suitable height (to be approved by Employer) to a dense phase pneumatic conveying system.	Dense phase pneumatic conveying system is not applicable. Similarly, compressor or other components related to Pneumatic conveying system, mentioned elsewhere in tender specification, are not applicable. Please confirm.	Confirmed.
1347	VI / B	A -22	1 of 3	1.00.00	The transmitting vessel shall operate on level probe mode with timer back-up.		Requirement of 'Level probe with timer back-up' in case of Mechanical conveying system, shall be finalized during detail Engineering.
1348	VI / B	A -22	1 of 3	2.00.00	The discharged rejects from coal mill shall be collected in a dedicated pyrite hopper. Each pyrite hopper shall be provided with cyl-inder operated knife gate valves at inlet and outlet.	There are system which doesn't require pyrite hopper also in mechanical type Mill Reject system. Rejects from mill are directly discharged to Conveyor. Hence NTPC is requested to review and allow this type arrangement also.	Pyrite Hopper arrangement may not be required for Mechanical tpe Mill reject system, however same shall be finalized during detail engineering.
1349	VI / B	A -22	1 of 3	2.01.00 (2) a)	Pyrite Hopper: Tested quality mild steel plates of thickness not less than 10 mm (IS: 2062) and suitably stiffened with rolled steel sections.	Stiffened rolled steel sections is not required and desirable for pyrite hopper as per proven practice and application.	Shall be finalized during detail engineering.
1350	VI / B	A -22	2 of 3	2.03.00 (7)	Tensioning arrangement: Hydraulic/pneumatic	Tensioning arrangement are critical for mechanical conveyor and shall be as per proven practice of OEM. Screw type tensioning arrangement is used by some of OEMs which may also be allowed.	Tensioning arrangement for metallic conveyor shall be finalized during detail engineering based on the proven practices of similar type of application.
1351	VI/ A	VI/ CHAPTER 11	16 OF 18	18. CLARIFIER/ 7	Chlorine Water Booster Pump motor – CW System	Chlorine Water Booster Pumps are not applicable for ClO2 system. Please review and confirm this requirement of mandatory spare.	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be supplied by the bidder
1352	VI/ A	VI/ CHAPTER 11	16 OF 18	18. CLARIFIER/ 8	Chlorine Water Booster Pump motor – PT System	Chlorine Water Booster Pumps are not applicable for ClO2 system. Please review and confirm this requirement of mandatory spare.	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be supplied by the bidder
1353	VI/ A	VI/ CHAPTER 11	16 OF 18	18. CLARIFIER/ 9	Absorbant circulation Pump motor –Chlorine Leak Absorption system	Absorbent Recirculation Pumps are not applicable for ClO2 system. Please review and confirm this requirement of mandatory spare.	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be supplied by the bidder

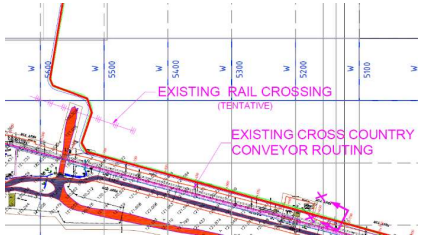
1354	VI/ A	VI/ CHAPTER 08	11 OF 27	2.00.00/ Mandato	Absorbant circulation Pumps – CW Chlorine Leak Absorption system	Absorbent Recirculation Pumps are not applicable for ClO2 system. Please review and confirm this requirement of mandatory spare.	In case the specified item is not applicable, equivalent mandatory spares pertaining to the offered design shall be supplied by the bidder. For ClO2 system, Refer Amendment No : A-WS-2
1355	SECTION-VI, PART-B	SUB-SECTION-D-1-5	PAGE 10 OF 120	5.02.09 (iii)	In case of routing of bus-duct is done outside the A-row (part/full), there shall be a…. The metal cladding shall be designed to suit the aesthetics of the entire main plant building.	It is understood and also as per bidder standard practice, that no cladding is required below / bottom face of the outside A-row duct structure. Please confirm	Full cladding is to be provoded as per Cl. 5.02.09 (iii)
1356	SECTION-VI, PART-B	SUB-SECTION-D-1-5	PAGE 10 OF 120	5.02.09 (iii)	In front of the power transformers, RCC fire barrier wall shall be provided as per functional requirement in lieu of brick wall at A-row. The above mentioned RCC wall shall be attached with single skin metal sheet on external face.	Bidder can provide either the RCC wall or 350 mm thick brick wall at this location. Please confirm.	Bidder to adhere to technical specifications
1357	SECTION-VI, PART-B	SUB-SECTION-D-1-5	PAGE 3 OF 120	5.02.01	The Mill-Bunker building roof shall be provided with Pre-fabricated insulated metal sandwich panels.	It is understood that Pre-Fabricated Insulated Metal Sandwich Panels to be manufactured on continuous-line in factory with suitable insulation type of 50 mm thick. Please confirm.	Confirmed.
1358	SECTION-VI, PART-B	SUB-SECTION-D-1-6	PAGE 14 OF 24	6.03.11	Permissible deflection for all purlins, cladding runners, roofing/cladding sheets and grating / chequered plates shall be span/250. However, the maximum vertical deflection of Grating/ Chequered plate shall be limited to 6 mm.	This deflection span/250 is too conservative for gratings, chequered plates. Please consider span/150. The maximum vertical deflection of Grating/ Chequered plate shall be limited to 10 mm. Please confirm	Bidder to adhere to technical specifications
1359	SECTION-VI, PART-B	SUB-SECTION-D-1-8	PAGE 9 OF 19	8.06.00	All gratings shall be electro forged types. Minimum thickness of the grating shall be 40 mm for indoor installation and 32 mm for outdoor installation.	Bidder can have the choice for providing stainless steel SS-409-M welded or MS electro forged gratings of 40 mm (indoor) and 32 mm (outdoor) as per the actual design for imposed load of 500 Kgs/Sq.m. Please confirm.	Bidder to adhere to technical specifications
1360	SECTION-VI, PART-B	SUB-SECTION-D-1-9	PAGE 7 OF 31	9.08.01	a) Wall Cladding & Roofing Material- COLOUR COATED AND OTHER SHEETING WORK. either of steel with minimum 0.6mm bare metal thickness, or of minimum 0.5mm BMT, or of steel of minimum 0.4mm BMT……	Considering the long life, better corrosion protection etc. it is proposed to have the stainless steel (SS) sheeting option also. Bidder can provide either stainless steel (SS) or M.S / High tensile steel metal cladding. Please confirm.	Bidder to adhere to technical specifications
1361	SECTION-VI, PART-B	SUB-SECTION-D-1-9	PAGE 9 OF 31	9.08.06	Pre-Fabricated Insulated Metal Sandwich Panels- Plain permanently colour coated with 50mm thick insulation sandwiched between the two sheets.	Please inform about the type of insulation to be provided in the Factory-made Insulated Metal Sandwich Panels.	Bidder to refer **Amendment D1-19**

1362	SECTION-VI, PART-B	SUB SECTION-A-01	PAGE 38 OF 101	1.05.22.01	CHIMNEY -The chimney flue liner cladding shall be made of 1.5 mm thick Titanium (Grade 2 as per ASME SB265) or C-276 (ASTM B575, UNS N10276) alloy over 8 mm thick (minimum) mild steel base metal of flue liner……. Alter-natively, Contractor can also provide chimney of 8 mm thick (minimum) mild steel with Borosilicate Glass Block Lining of minimum 38 mm thickness…	Super Duplex SS-32760 plate as per ASTM-A 240/480 is also technically suitable for chimney flue liner & is available indigenously. Considering various initiatives taken by GOI for 'Aatma Nirbhar Bharat', 'Make in India' etc. bidder can provide either borosilicate / Super Duplex SS-32760/ C276/alloy 59/Titanium Clad plate. Please confirm.	Bidder to comply with the specifications requirements.
1363	SECTION – VI, PART-A	SUB-SECTION-IV	3 of 73	1.01.01 (iii)	TG Output: Continuous TG output of 693 MW unit load (i.e. 105% of rated load) under rated steam conditions at 77 mm Hg (abs) condenser pressure with zero make-up.	Customer has envisaged excessive margins for the design of condenser cooling water system. This has resulted in 25% increase in the sizing of entire cooling water system and auxiliary power con-sumption. As per specification, the TG cycle is guaranteed for condenser back pressure of 77 mmHg (abs). However, the condenser cooling water system is specified to be designed with following condi-tions: • The design back pressure for condenser is 65 mmHg, approx 18% margin over the TG cycle guarantee back pressure of 77 mmHg. • The condenser is designed for 33 deg C cold water temperature, whereas cooling tower outlet is guaranteed for 32.5 deg C, approx 3% margin over condenser design back pressure of 65 mmHg or approx 21% margin over TG cycle guaranteed back pressure of 77 mmHg. • The CW Pump is specified with 2 MWC additional pressure drop in addition to 10% margin in friction drop to increase the design CW flow rate by approx 10% dur-ing operation. This condition will further improve the back pressure by approx 6.5% margin over design condenser back pressure of 65 mmHg or approx 25% margin over TG cy-cle guaranteed back pressure of 77 mmHg. NTPC is requested to please review the above ex-cessive margins envisaged in design of condenser cooling water systems, as it is leading to increase in sizes of all components of CW system such as condenser, CW Pumps and especially NDCT and also increase in Aux power consumption of CW pumps by approx 10%. Following is suggested to limit the margin to a nominal value of approx 10%:	
1364	SECTION-VI, PART-B	SUB SECTION-A-01	45 of 101	2.02.03 (ii)	Design cold water temp.: 33 Deg. C		
1365	SECTION-VI, PART-B	SUB SECTION-A-01	45 of 101	2.02.03 (vi)	Guarantee Condenser pressure: To be optimised by bidder but not exceeding 65 mmHg (abs).		
1366	SECTION-VI, PART-B	SUB SECTION-A-01	56 of 101	3.02.00 (g)	Design Cold water temperature at cooling tower outlet: 32.5 Degree C		Bidder proposal is not acceptable.Bidder to comply specification requirement.
1367	SECTION-VI, PART-B	SUB SECTION-A-01	56 of 101	3.02.00 (c)	Quantity of water to be cooled by Cooling Towers of One Unit: CW Pumps Flow per Unit + 10% margin		
1368	SECTION-VI, PART-B	SUB SECTION-A-01	55 of 101	3.01.00 (e)	Total Head of the CW pump at rated flow: Sum of static lift from minimum water level in CW pump house sump up to the centerline elevation of hot water distribution header at Cooling Tower + 110% of friction drop in the entire CW system + pressure drop across Condenser with 2 MWC margin (minimum).		

1369	VI/B	E-60 INDICATIVE VENDOR LIST	2 of 2	1.7	The list of sub-vendors is periodically re-vised 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.	For some of the items mentioned in this indicative vendor list (updated vendor list to be shared with successful bidder immediately on award), QR or Sub-QR requirements are also mentioned in Part A, Sub-section IA, like TG Hall EOT crane, brought out items for FGD, etc. It is understood that for approved vendor of such items, QR or Sub-QR related documents shall not be required. Please clarify.	The bidder shall submit project specific documents for sub-QR items.
1370	TECHNICAL SPECIFICATION SECTION – VI, PART-B BID DOC NO.: CS-4540-001A-2	SUB-SECTION-A-25 SOLAR P.V.	1 of 26	1.3	Determination of optimal grid connected solar PV systems for south facing walls (BIPV) of different buildings of this package.	Since there are extremly limited number of contractors capable of executing BIPV in line with safety standards in the country, it is requested to please remove BIPV from the scope of the bidder.	Refer Amendment No F-1
1371	TECHNICAL SPECIFICATION SECTION – VI, PART-B BID DOC NO.: CS-4540-001A-2	SUB-SECTION-A-25 SOLAR P.V.	10 of 26	13	BIPV (BUILDING INTEGRATED PHOTOVOLTAIC)	Since there are extremly limited number of contractors capable of executing BIPV in line with safety standards in the country, it is requested to please remove BIPV from the scope of the bidder.	Refer Amendment No F-2

S. No.	Specification Reference				Specification Requirement	Bidder's Query	NTPC's Clarification
	Sec/Part	Sub Sec	Page No.	Clause No.			
1					Requirement of Road around periphery of Mine Void 4	We understand from our discussion during site visit that the EPC Contractor needs to construct peripheral road along ash pipelines around Mine Void 4. In this context, please note that the proposed area surrounding the mine is highly undulated with overburden, which makes it difficult to construct motorable road around periphery of Mine Void 4. We, therefore, request NTPC to review the requirement of road around periphery of Mine Void 4.	Bidder to refer Amendment No. D2
2	VI/A	IID	9 of 13	1.00.00 (34)	Railway Siding and its associated facility	We request NTPC to delete Railway Siding and associated facilities from the scope of the bidder.	Bidder to refer Amendment No. D2
3					Dismantling scope	Suitable modification in the scope of complete dismantling within / outside plant boundary.	Bidder to refer Amendment No. D2
4					Depackaging	We request NTPC to adopt de-packaging philosophy for the subject tender and also not to include the following civil oriented packages (including outside the plant boundary) in the current tender. -Railway Siding -Make-up water intake system along with transmission line -Dismantling of cross-country coal conveyor -Ash disposal to mine voids and AWRS along with transmission line -Development of laydown area in abandoned ash dyke -Coal Shed -Dismantling of the super-structures and sub-structures of various facilities/buildings specified in the bidding document	Bidder to refer Amendment No. D2
5					Employer's Responsibilities	We request Employer to kindly arrange/complete following fronts/activities prior to issuance of Notification of Award (NOA): 1)Availability of encumbrance free land 2)Availability of Approach Road including access to site through the Railway Over Bridge (ROB) 3)Completion of rerouting of transmission lines between the two ash dykes i.e. dyke no. B and C (laydown area) 4)Availability of additional space by dismantling the adjacent TPS Stage-II BOP facilities (like railway siding, store and ash water reservoir etc.) for carrying out pre-assembly work, crane movement for erection of Main Plant equipment, temporary storage etc.	1)Complete encumbrance free land would be available. Bidder to refer area handover and dismantling schedule as detailed in Clause 5.00.00 of Sub-Section-III Section VI, Part-A and Sub-Section-IID, Section VI, Part-A for area availability schedule and plan accordingly. 2)Approach road to the plant is available through a level crossing. For ease of movement, construction of balance work of Rail Over Bridge (ROB) is under construction by R&B department, Govt. of Odisha. In addition to this, Anugul Talcher State highway can also be used for transportation and approach to TTPS site directly. Further for approach to the designated laydown area in abandoned ash dyke, ROB is not required. 3)Rerouting of existing 132kV transmission line is not feasible and hence not envisaged. The transmission line is sufficiently above the existing ground level and sufficient headroom is available. 4)Dismantling of existing Railway Siding inside plant boundry and Ash water reservoir is in the scope of EPC Package. Above ground structures of Stores would be dismantled by Owner. However, dismantling of below ground structures of stores i.e. foundations etc. is in the scope of EPC Package. Please refer Technical Specifications for clarity. Additionally, 75 acres of land is available for Laydown & Pre-assembly and an additional 10 acres are available for Batching Plant within plant boundary. Bidder to plan accordingly.

						5)Availability of front for AHP facilities proposed within the existing power station area 6)Re-location of area earmarked for Carbon capture facilities to make space for ESP and FGD 7)Alternative arrangement of water supply, so that Contractor can dismantle the existing raw water reservoir 2 and PT plant from start of the project 8)Availability of front for Coal stockpile and coal shed falling in existing TPS Stage-II ETP facility 9)Right of Way (RoW)/Right of Use (RoU) for Make up Water Pump House facilities 10)Right of Way (RoW)/Right of Use (RoU) for Make up Water corridor for Piping & Transmission line 11)Completion of Land Acquisition for Railway Siding 12) Availability of Construction Power & Construction Water	5)Bidder to refer Cl. 5.00.00 of Part-A, Section-VI, Sub Section-III and plan accordingly. 6)The space allocated for FGD & ESP in the layout is based on the earlier experiences of NTPC for the space requirement. In view of space constraint, single control room is planned for both the units near chimney. Separate space identified for lime and gypsum handling to address the issue of space constraint for FGD. For carbon capture 3000 Sq.M. area is identified near to chimney to meet the technical requirement. Further additional area of around 50,000 Sq.M. is also identified for Hydrogen & Methanol handling which will be made available progressively with dismantling of existing units. Considering above, bidder may plan their facilities within the space provided. Further, 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. 7)Bidder to refer Cl. 5.00.00 of Part-A, Section-VI, Sub Section-III and plan accordingly. 8)Dismantling of ETP shall be in Bidder's scope. Bidder to refer Amendment to technical specifications in this regard. 9)Bidder to refer Amendment D2 in this regard 10)Bidder to refer Amendment D2 in this regard 11)Bidder to refer Amendment D2 in this regard 12) For availability of Construction water and Construction power bidder is requested to refer to Cl. 2.02.00 of Section VI/Part-A, Sub-Section-IID.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
6	SEC-VI/PART-B	D-1-7	3 of 12.	7.02.02	For the new facilities to be constructed after dismantling existing facilities; founding level of new facilities shall be taken at least 1.0m below the existing founding depth of the dismantled structures in case of soil and 0.6m below the existing founding depth of the dismantled structures in case of rock	We request customer to kindly furnish the foundation drawings of the existing structures to enable us to decide foundation depth.	Foundation drawings are not available. However, drawings developed using GPR for some structures are being provided. Refer amendment no D2 Additionaly, bidder can visit site to make its own assessment.
7	SEC-VI/PART-E		4540-001-POM-A-(	TENDER DRAWINGS	PROPOSED ROUTING OF ASH DISPOSAL & AWRS PIPING AND ASSOCIATED FACILITIES 	Please refer attached snapshot. During our site visit, we found that the location marked as “Existing Rail Crossing” now has many new buildings/structures/roads/retaining walls/rail tracks erected by Mahanadi Coalfields in last 1-2 years, which are completely fouling with the existing ash slurry pedestal routing. Routing the ash slurry pipes as Section X-X marked for this area, is certainly not possible. We request NTPC to kindly provide us with latest survey drawing with contour levels for this rail crossing area.	Ash slurry corridor outside plant & AWRS upto plant boundary shall be excluded from the scope of the Pkg.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
8	SECTION-VI, PART-E	TENDER DRGS	4540-001-POC-A-012		In Make-up Water Pump House Plan and Section, TWS is shown at the suction of each make up water pumps.	Customer may please clarify whether TWS is to be envisaged at the suction of make-up water pumps or not. If it is to be envisaged, please provide the detailed technical specification, design criteria, MOC etc.	Bidder to refer Amendment No. D2
9	SECTION-VI, PART-E	TENDER DRGS	4540-001-POM-A-061		In Scheme of make-up water system, TWS is not shown at the suction of make-up water pumps.		
10	SECTION-VI, PART-B	D-1-7	3 of 12	7.02.02	Open Foundations h) During design the Allowable Bearing Pressure shall be adopted after approval of geotechnical investigation report. However, the maximum allowable bearing pressure shall be lower of the two values i.e. as per approved geotechnical report and as per the values furnished in Table-1.	**Allowable bearing pressure shall be adopted as per approved geotechnical investigation report during contract stage. Please confirm.**	Bidder to refer Amendment No. D2
11	SECTION-VI, PART-B	D-1-7	4 of 12	7.03.00 ii)	Pile shall be socketed into weathered rock. A socketing length of Five meter into rock shall be ensured.	As per the bore log details, type of rock is weathered sandstone. In case of pile foundation, socketing of 5m inside rock is technically not required. Socketing inside the rock shall be done as per design requirement during contract stage. Please confirm.	Bidder to refer Amendment No. D2
12	SECTION-VI, PART-B	D-1-7	4 of 12	7.03.00 ii)	The uplift and lateral load capacity shall be respectively restricted to 35% and 5% of the allowable load capacity in vertical compression.	In case of pile foundation, the uplift and lateral load capacity shall be adopted as per approved geotechnical investigation report during contract stage. Please confirm.	Bidder to refer Amendment No. D2
13					General	Geotechnical details for make-up water pipe line, pump house, forebay etc may please be furnished including following details: a) Bore logs b) Field and lab test results c) Chemical analysis soil/water d) ERT results	Bidder to refer Amendment No. D2

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
14		ESLD 4540-001-POE-J-001-A			33KV COMMON SERVICE SWGR: 4NOS. FDR. OWNER'S USE 11KV MISC SWGR: 4NOS. FDR. OWNER'S USE Balance feeders on the above swbd in-clude: 2 nos. fdr for Ext. CHP (customer scope), 2 nos. fdr for MUW system, 2 nos. fdr for AWRS system, 2 nos. fdr for COLONY (uncabled), 2 nos., fdr for 33/11.5kV (7.5MVA) trafo.	1) Please provide the load to be considered for the O/G feeder from 11kV Station SWBD for feeding the 11/34.5KV Com-mon service transformer. The same is re-quired for the sizing of the station Trans-former. 2) Except for the 2 nos. feeders for AWRS, we understand balance 16 nos. feeders mentioned in the list & 2nos. feed-er/section spare each for 33kV & 11kV SWGR shall suffice to owner's require-ment & no additional. feeder shall be en-visaged further for this requirement.	1. Refer amendment no. B-20 2. Bidder's understanding is correct.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
15	Part-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	PAGE 9 OF 17	1.16.05	33kV Transmission Line	i) Kindly provide the preliminary route survey of 33kV Transmission line. Ii) We understand that any ROW (Right of Way) , statutory clearances, coordination with external agency required for this 33kV line is not in scope. Please confirm.	Please refer amendment no. B-22.
16	Part-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	PAGE 9 OF 17	1.16.05	33kV Transmission Line The scope covers supply, erection, commissioning of 33kV Transmission Lines on Towers (**narrow based lattice towers with fully galvanised structure**) and associated equipments as shown in the single line diagram.	Kindly confirm whether pole mounted 33kV line in place of lattice tower is also acceptable or not.	Please refer amendment no. B-22.
17	Part-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	PAGE 9 OF 17	iV)	33kV Transmission Line: 33 kV Transmission Line of 28 Km length (approx.) with (2nos) Single Circuit towers (narrow based lattice towers with fully galvanised structure) from TTPS plant boundary to Make Up water pump house . The route is along the Make up water pipe corridor.	Kindly confirm whether 33kV cable is also acceptable from TTPS plant boundary to MakeUP water pump house.	Please refer amendment no. B-21.
18	Part-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	PAGE 13 OF 17	1.21.00	**OVERHEAD LINES** Transmission line to AWRS Pumphouse: Two number 11kV or 33kV single circuit transmission line on poles for supplying power from plant to AWRS pumphouse The overhead lines for AWRS Pump house shall generally be laid along the AWRS route. However, exact routing shall be decided during detailed engineering. Scope of work includes route survey for line, civil works, design, supply, erection and commissioning of poles.	i) Any ROW for overhead line to AWRS is not in scope of Bidder. Please confirm. Ii) Kindly provide the specification of this transmission line.	Please refer amendment no. B-23.
19	Section-VI	Sub Section-A-12	5 of 12	4.00.00	The Fire detection and protection requirement has not been envisaged for make up water Pump house at Samal Barrage discharge.	Bidder has not considered any Fire detection and protection system for make up water Pump house at Samal Barrage diharge which is 28 km away from Main Plant boundary. Kindly check and confirm the same.	Fire detection & protection system for system/equipment/ rooms in areas like make-up water pump house, AWRS pump house, etc. outside plant boudary is not in the scope of the Bidder. Bidder to refer Amendment A-PU-8 to A-PU-15.

20	Section VI Part-A SubSection IIA 09		1 of 3	1.00.00 (7)	Supply and laying of 2x50% capacity mild steel pipes with 3-layer polyethylene (3LPE) coating and of required size to supply water from makeup water pump house located outside plant at upstream of the Samal barrage discharge on the River Brahmani to Raw water reservoir inside plant and complete with all bends, fittings, joints with specified coating, valves, instruments etc	Kindly confirm for the material of MUW pipe is MILD STEEL only. Whether other material like Ductile Iron or GRP or Carbon Steel may be utilised for manufacturing of MUW pipe?	Bidder to please refer amendment A-WS-12
21	Section VI Part-B SubSection A 01		68 of 101	3.10.00	MUW pipelines – 2 x 50 % 3LPE coated Carbon Steel pipes	Kindly confirm for the material of MUW pipeline is Carbon steel pipes only. Whether other material like Ductile Iron or GRP or Mild Steel may be utilised for manufacturing of MUW pipe?	Bidder to please refer amendment A-WS-24
22	Section VI Part-A SubSection IIA 09		3 of 3	1.03.01	Contractor's scope of services shall also include cost of meeting all statutory requirements (except where specifically excluded) and furnishing the required certificates.	Kindly confirm, all statutory fees/payments required to be deposited to the concern authorities for approval/permissions of rail/road/canal crossings shall be paid by NTPC. Also, confirm that obtaining approval for Right of way and Right of Use for MUW pipe laying is in the scope of NTPC	Bidder to please refer amendment A-WS-12
23	Section VI Part-A SubSection IIB		10 of 17	1.16.05 v)	EPC vendor shall optimize the corridor of MUW pipe and 33kV Transmission line in the width of the corridor.	Bidder is allowed to utilise total area of the corridor as allocated to bidder by Owner. Kindly confirm. In case area for laying of piping goes beyond the allocated corridor area, land & statutory approval for ROU to be obtained by NTPC for the additional area beyond allocated corridor.	Bidder to refer Amendment No. D2
24	SECTION – VI, PART-A SUB-SECTION-IID		7 OF 13	19	Make up water system	Right of way, land acquisition, tree cutting, statutory approval for road cutting/ diversion, blasting (if required), MOEF clearance etc. outside plant boundary should not included in Bidders scope and shall be taken care by NTPC. Please confirm same shall be arranged by the NTPC.	Bidder to refer Amendment No. D2
25	SECTION-VI, PART-B SUB-SECTION-D-1-5		84 OF 120	5.18.05	The deck of bridge has been sized for two (2) make-up water pipes, etc.	We understood that Intake of raw eater Is through Open channel. Therefore, Sizing of bridge deck for intake well is not required. Kindly confirm	Bidder to refer Amendment No. D2
26	SECTION – VI, PART-A SUB-SECTION-IID		3 OF 13	1.00.00 4) f)	Existing Stage-II reservoir & Stage-II PT Plant will be covered inside the existing Station premises since it would be operational for catering to (i) water requirement of existing plant & township and (ii) construction water requirement of Stage-III project.	We understand that Make up water line catering water requirement of Stage II reservoir area shall be utilised to cater water requirement for stage III reservoir till the construction of make up water system for feeding water in reservoir -III is completed for Stage-III plant	Bidder to refer Amendment No. D2
27	Section VI Part-A SubSection IID		9 of 13	34 (a)	The FSR (Feasibility Site Report) attached at Annexure D-1-12(N) is for bidding /reference purpose only. As it is in the process of approval from Indian Railways, the work shall be executed as per the Indian Railway Standards. Executing agency has to prepare the DPR, ESP,SIP & Other necessary drawings and get the approval from Indian Railways.	FSR may please be provided as it is not avaibale in the tender documents.	Bidder to refer Amendment No. D2
28	Section VI Part-A SubSection IID		9 of 13	34	The scope of work & services for the proposed railway siding and augmentation of serving station	We understand that Serving station-Talcher is already an established station. Kindly provide the scope details of augmentation of serving station	Bidder to refer Amendment No. D2

29	Section VI Part-B SubSection D -1-5		115 of 120	5.32.1.1	The alignment of Railway Siding is to be accommodated within the available NTPC land as per the FSR. The assessment of additional land requirement (if any), which may crop up during preparation of Engineering scale plan/ construction stage of the Railway siding, including preparation of land requirement plan with details such as private, govt., forest etc. on Khasara map (including schedules & cadastral map) shall also be in the scope of the Bidder. Identification of structures/buildings required to be demolished and its cost estimate including compensation to be paid to the owner of structure/buildings, if any, shall also worked out by the Bidder and submitted to NTPC.	Kindly confirm that acquisition of additional land requirement for railway siding shall be taken care by NTPC. Bidder shall provide the assessment report for the requirement of additional land.	Bidder to refer Amendment No. D2
30	Section VI Part-B SubSection D -1-5		116 of 120	5.32.4.1 e) iv)	Design of bridge across canal shall be done as per requirements of the Water Resources Department of Odisha. In addition to obtaining approval of the Railways, the Bidder shall submit the detailed design of the bridge to WRD of Odisha and obtain their approval prior to start of the construction work.	NTPC to obtain the requisite approval from Railways/authority concerned for the bridge across canal. Kindly confirm	Bidder to refer Amendment No. D2
31	SECTION VI, PART-B	SUB-SECTION-IIIC-13 PUBLIC ADDRESS SYSTEM	----	-----	General	PA system is not being envisaged for 'Make Up Water pump house'; since same is 28 kms away from main plant.	Bidder to refer Amendment No. D2
32	SECTION VI –Part – A	Sub-Section – IIA-09	Page 1 of 3	4)	One (1) No. 20 Tons (minimum) capacity EOT Crane for handling equipments in MUW pump house and 3 Tons (Min) capacity electric hoists for handling stop logs and trash racks in MUW pump house.	We have considered Gantry Crane for handling stop logs and trash racks in MUW pump house. However, type of crane (Gantry/Semi Gantry) shall be decided during detail engineering as per the final MUW pump house layout. Please confirm.	Bidder to refer Amendment No. D2
33	SECTION – VI, PART-E				Drg. No. 4540-001-POC-A-012: Make up water pump house plan & section. As per this drawing, 10T Gantry crane is to be considered for handling stop logs and trash racks in MUW pump house.		
34	General				Dismantling of Superstructure / substructure, as per specifications.	Bidder request NTPC to dismantle the super-structure / sub-structure of various facilities/buildings specified in bidding documents, as per specification and provide the encumbrance free land for complete facilities under the scope of bidder as on date of NOA. NTPC To confirm and issue suitable amendment.	Bidder to refer Amendment No. D2

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
35	SECTION – VI, PART-A, SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS		10 of 17	1.16.05 Vi)	**33kV Transmission Line :** Supply of all items for civil and structural works to include detailed route survey including survey for PTCC clearance, route marking, survey and selection of tower locations (including all crossings), route clearance / tree cutting, geo-technical investigation of soil, tower foundations for all types of soil at each location etc.	Preliminary route survey including tower location, tower profile for 33kV Transmission line for Raw Water Intake system is not available in tender specification. Owner may please provide preliminary route survey for transmission line.	Please refer amendment no. B-22
36	SECTION – VI, PART-A, SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS		13 of 17	1.21.00	**OVERHEAD LINES** Transmission line to AWRS Pumphouse: Two number 11kV or 33kV single circuit transmission line on poles for supplying power from plant to AWRS pumphouse The overhead lines for AWRS Pump house shall generally be laid along the AWRS route. However, exact routing shall be decided during detailed engineering. Scope of work includes route survey for line, civil works, design, supply, erection and commissioning of poles.	Preliminary route survey including pole location, pole profile for 33kV or 11kV overhead line for Ash Water Recovery system is not available in tender specification. Owner may please provide preliminary route survey for overhead line.	Please refer amendment no. B-23
37	Section VI, Part B, Sub-Section D-1-1		1 of 2	1.01.00	Preliminary geotechnical investigation in the proposed are has been carried out by the Owner and the bore-log data is furnished as Annexure C	Bore hole details of the following areas are not available. a) Intake channel, pump house and piping corridor b) Ash piping corridor outside plant boundary c) Existing reservoir area which is overlapping with CHP facilities Owner to share the recent soil investigation which is being carried out at proposed Talcher TPS site.	Bidder to refer Amendment D-2
38	Section VI, Part A, Sub-Section IID		7 of 13	19	Makeup water system All civil, structural & architectural works associated with Makeup water system	Owner to furnish bathymetry survey of samal reservoir with respect to intake channel.	Bidder to refer Amendment D-2
39	Sub Section IID, Civil works		9 of 13	34	The FSR (Feasibility Site Report) attached at Annexure D-1-12(N) is for bidding /reference purpose only. As it is in the process of approval from Indian Railways, the work shall be executed as per the Indian Railway Standards. Executing agency has to prepare the DPR, ESP,SIP & Other necessary drawings and get the approval from Indian Railways.	Feasibility site Report is not available with tender specification. Owner to furnish the same. Also alongwith FSR, Owner to kindly furnish additional input like Engineering scale plan, L-Section, Details of Enroute RUB/ROB, etc.	Bidder to refer Amendment D-2
40	Section VI, Part A, Sub-Section IID		2 of 13	4a viii and 4a xiv	Under-ground MUW Pipe Line inlet line from Plant Boundary upto Stage- I Raw water reservoir Under-ground MUW Pipe Line inlet line from Plant Boundary upto Stage- II Raw water reservoir	Owner to furnish the underground pipe routing for the below mentioned pipeline: a) Under-ground MUW Pipe Line inlet line from Plant Boundary upto Stage- I Raw water reservoir b) Under-ground MUW Pipe Line inlet line from Plant Boundary upto Stage- II Raw water reservoir	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.

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply (EPC)
41	Section VI, Part B, Sub-Section D-1-7	7.00.01	1 of 12	Contractor shall carryout detailed geotechnical investigation for the facilities under this package. The scheme for geotechnical investigation shall be as given at Clause 7.10.00 and shall be approved by Owner before execution.	Bidder understands that detailed soil investigation is being conducted by Owner for the proposed stage III Talcher TPS. Hence bidder shall consider the same report during detail engineering and will not conduct soil investigation post award. Owner to kindly confirm acceptance.	Bidder to refer Amendment no. D2
42	Section VI, Part B, Sub Section D-1-5	5.32.1.1	115 of 120	The alignment of Railway Siding is to be accommodated within the available NTPC land as per the FSR. The assessment of additional land requirement (if any), which may crop up during preparation of Engineering scale plan/ construction stage of the Railway siding, including preparation of land requirement plan with details such as private, govt., forest etc. on Khasara map (including schedules & cadastral map) shall also be in the scope of the Bidder. Identification of structures/buildings required to be demolished and its cost estimate including compensation to be paid to the owner of structure/buildings, if any, shall also worked out by the Bidder and submitted to NTPC.	Railway siding - Owner to kindly note that activities like assessment of additional land including preparation of land requirement plan on Khasara map with details such as private, govt, forest etc, working out compensation estimate etc. are pre-requisite to land acquisition and should be taken up by Owner during project inception stage and before award of contract. Also these are long lead items and thus can delay overall project schedule. Therefore, during detail engineering, Bidder cannot take up aforesaid activities and the same to be excluded from EPC scope of work.	Bidder to refer Amendment no. D2
43	Tender drawings			Patrol/inspection road along Ash Slurry pipe corridor as shown in tender drawings.	Bidder understands that for those areas where existing permanent motorable roads are available in the vicinity of mine void area (including under construction roads), construction of inspection road will not be required. Road as per specification shall be constructed by EPC Contractor for remaining areas including kachha road. Pease confirm Bidder's understanding.	Bidder to refer Amendment no. D2
44	Section VI/ Part-A/Sub section -IID Section VI/ Part-B	1.00.00 5.13.02	8 47	19. Makeup water system 28. Civil, Structural works for pipe /cable /duct supporting structures, trestles and foundations, trenches, culverts, duct banks, pedestals, hume pipe & culverts, buried pipes, racks, culverts across rail/road tracks for pipes/ drains/ cables and any other facility and thrust blocks etc. associated with all systems covered under the scope. Civil Works for Fire Detection & Protection System in Ground Floor/ Paving In case of rail crossings, NP4 class hume pipe encased in RCC shall be used instead of NP3 class hume pipe.	Bidder understands that NP4 class hume pipe is to be considered for rail crossing for fire protection system.	Bidder to refer Amendment no. D2
45	SECTION VI / PART B/ Book 4 of 5 - Civil Works/ Sub-Section-D-1-7	5.18.01.10	73 of 120	Switch Gear / Control Room/ Remote IO room for CWPH, RWPH and MUWPH It shall be single storied building, framed RCC structure with beams, columns, floor and roof. It shall have non-load bearing brick wall cladding.	Bidder understand that limit state method of design as per IS:456 is allowed for switch gear room of MUWPH. Please confirm.	Bidder to refer Amendment no. D2

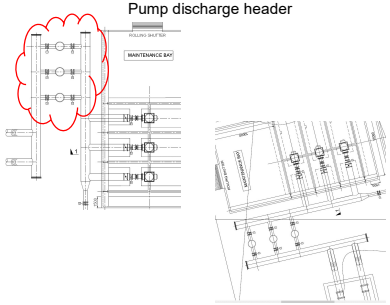
Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply (EPC)
46	SECTION-VI / PART-B / Book 4 of 5 - Civil Works/ Sub-Section-D-1-5	5.18.06	85 of 120	Make-Up Water Pipe Crossings At National Highway / State Highway / Railway Pipe crossing through culverts (Culverts to be constructed by Owner) There are two railway crossings (TP 132 to TP133 and TP 24 to TP25), one no. road crossing (TP 35 to TP 36), and one no NH Crossing (TP 101 to 102), as mentioned in tender drawing no 4540-001-POC-A-010) for which culverts (Box culvert/pipe culvert) will be constructed by the Owner, However, pipe line laying along with associated RCC pedestal/thrust block and RCC pits at entry/ exit points shall be in bidder's scope.	Bidder understand that Make-up water pipe crossings at National Highways / State Highways / Railway are scope of Owner and excluded from EPC scope of work. Please confirm.	Bidder to refer Amendment no. D2
47	SECTION-VI / PART-E /Tender Documents	-	-	Drawing number 4540-001-POC-A-013 "MAKE-UP WATER SYSTEM AND ASSOCIATED CIVIL WORKS PACKAGE - PIPE BRIDGE CROSSING AT IRRIGATION CANAL,NALLAH & RESERVOIR SUBMERGENCE AREA"	Bidder understand that this drawing is indicative only. Pile foundation indicated below foundations. Bidder may consider open or pile foundation as per Geotechnical Investigation report. Please confirm.	Bidder to refer Amendment no. D2
48	SECTION VI / PART E/ Tender Drawings	-	-	-	Bidder request Owner to Kindly provide Road Layout drawings near MUWPH.	Bidder to refer Amendment no. D2
49	Dredging				Bidder understand that dredging is not included in EPC scope of work for the areas beyond the start point of intake channel. Please confirm	Bidder to refer Amendment no. D2
50	Historical water level data of barrage				Bidder request Owner to provide historical water level data of Samal barrage	Bidder to refer Amendment no. D2
51	SECTION VI / PART E/ Tender Drawings				4540-001-POC-A-010 (sht-1 of 23): RL near proposed make up water pump house at Bhaktipal is indicated as EL. 77.25m etc. near TP0 (CH. 0.0) 4540-001-POC-A-011: RL near proposed make up water pump house at Bhaktipal is indicated as EL. 82.50m etc. near TP0 (CH. 0.0) As there are mismatch of RL, Bidder request Owner to confirm which drawing to be followed or provide revised topographic survey details near proposed make up water pump house at Bhaktipal	Bidder to refer Amendment no. D2
52	SECTION VI / PART E/ Tender Drawings				Bidder request Owner to provide the details of any underground pipe line or other utilities (if any) along the pipe line area.	Bidder to refer Amendment no. D2

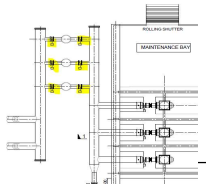
Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
53	SECTION – VI, PART-A, SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS _____ SECTION – VI, PART-A, SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS _____ SECTION – VI, PART-A, SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS _____ SECTION – VI, PART-E, TENDER DRAWINGS	1.04.00 _____ 1.05.01 _____ 1.05.02 ___ -	2 of 17 _____ 2 of 17 _____ 2 of 17 ___ -	The preferred standard Transformers ratings shall be as indicated in a typical key single line diagrams Drgs. No 4540-999-POE-J-001 enclosed in Tender drawings. _____ (a typical key single line diagram for Aux Power Supply Drawing No 4540-999-POE-J-001 enclosed). _____ (a typical key single line diagram for Aux Power Supply Drawing No. 4540-999-POE-J-001 enclosed) _____ Single Line Diagram Drg.no. 4540-001-POE-J-001 Rev.A.	The drawing number of Single Line Diagram as per Section-VI, Part-E is 4540-001-POE-J-001 Rev.A. The referred clauses specifies drawing number as 4540-999-POE-J-001 for Single Line Diagram. Owner may please review and update specification. Bidder is following Drg.no.4540-001-POE-J-001 Rev.A as per Section-VI, Part-E.	Bidder's understanding is correct. Please refer amendment no. B-31
54	Section-VII-Book 2 of 3 Price Bid _____ SECTION – VI, PART-E, TENDER DRAWINGS	PRICE SCHEDULE SCHEDULE-10 Sr.no.26 _____ Drg.no. 4540-001-POE-J-001 Rev.A	- _____ -	one complete 400KV GIS Dia (Line-III-TIE-Line-IV) Along with Associated GIS duct, AIS equipment,Termination, cable, cabling, control & protection and metering , civil works etc complete in all repect as per SLD and Technical specification. _____ # # 4. ONE COMPLETE 400KV GIS DIA (LINE-III-TIE-LINE-IV) ALONGWITH ASSOCIATED GIS DUCT, AIS EQUIPMENT,TERMINATION, CABLE, CABLING, CONTROL & PROTECTION AND METERING , CIVIL WORKS ETC. COMPLETE IN ALL RESPECT AS PER SLD AND TECHNICAL SPECIFICATION SHALL BE QUOTED SEPARATELY IN PRICE SCHEDULE.	Bidder understands that the scope of work related to "one complete 400KV GIS Dia (Line-III-TIE-Line-IV)" is included in base scope to be quoted under lumpsum bid price and the separate value quoted at Sr.no.26, Schedule-10 of Price Schedule will be used for deletion of scope during project execution. Owner may please confirm bidder's understanding. If the above understanding is correct, Owner may ask separate quote under Schedule-9 (Schedule of Take Out Price) instead of Schedule-10 (Schedule of Unit Rates).	bidder's understanding is correct. The bidder shall quote in schedule -09 as a take-out price for "one complete 400KV GIS Dia (Line-III-TIE-Line-IV)". Please refer amendment no. B-4 and B-5
55	SECTION – VI, PART-E, TENDER DRAWINGS	Drg.no. 4540-001-POE-J-001 Rev.A	-	33kV Line for MUWPH Plant side equipment - 33kV Isolator, Earth Switch, and Lightning arrestor	(1) Bidder request Owner to clarify the location for installation of Plant side 33kV equipment comprising 33kV Isolator, Earth Switch, and Lightning arrestor. (2) Bidder understands that the Plant side 33kV equipment comprising 33kV Isolator, Earth Switch, and Lightning arrestor are Outdoor equipment. Owner may please confirm.	Please refer amendment no.B-31
56	SECTION – VI, PART-E, TENDER DRAWINGS	Drg.no. 4540-001-POE-J-001 Rev.A	-	33kV Line for MUWPH MUWPH side equipment - 33kV Isolator, Earth Switch, Lightning arrestor and PT	Bidder understands that the MUWPH side 33kV equipment comprising 33kV Isolator, Earth Switch, Lightning arrestor and PT are Outdoor equipment. Owner may please confirm.	Please refer amendment no.B-31

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
57	General	-	-	-	Owner may please clarify about the requirement of illumination system/street lighting for approach road which is connecting the MUWPH to the nearest road.	Please refer amendment no.B-31
58	Technical Specification Section – VI, Part-B Bid Doc NO. : CS-4540-001-2 Sub section B-10, CABLING, EARTHING & LIGHTNING PROTECTION	Annexure-I	20 of 21	RECEPTACLES LOCATION ANNEXURE - 1 RECEPTACLES LOCATION	Owner may please specify the receptacles requirement at Makeup water pump house.	Please refer amendment no.B-31
59	Technical Specification Section – VI, Part-B Bid Doc NO. : CS-4540-001-2 Sub section B-11, LIGHTING	Annexure-A Annexure-B	18 of 18	DC Emergency Lighting average lux levels	Owner may please provide DC Emergency Lighting average lux levels for PUMP house in MUWPH.	Please refer amendment no.B-31

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
60	Section VI/ Part-A/ Sub section-IIA-12	4.00.00 (b)	5	19) Any other area/building required to be protected with hydrant system.	Scope of Fire protection and detection system for facilities proposed outside plant boundary i.e. make up water pump house, Ash Water recirculation (AWRS) area at Mine Void, External Coal Handling plant, laydown area & other facilities as applicable etc. is not specified in tender specification, hence, Bidder has not considered in scope of work. Kindly confirm.	Fire detection & protection system for system/equipment/ rooms in areas like make-up water pump house, AWRS pump house, etc. outside plant boudary is not in the scope of the Bidder. Bidder to refer Amendment A-PU-8 to A-PU-15.
61	SECTION-VI / PART-A /SUB-SECTION-A-12	4.00.00 (h)	7	e) Switchgear/MCC rooms/Battery Rooms/control rooms of Raw/Makeup water/other pump house (as applicable) located outside plant boundary.	As per specification, Bidder understands that apart from the scope specified in the clause, no other fire protection system like water based fire protection system, Panel injection system etc. envisaged for the pump houses which are located outside plant boundary, NTPC to confirm. Apart from the above, fire detection system shall be standalone and shall not be connected to the main plant fire detection system. Please confirm.	Fire detection & protection system for system/equipment/ rooms in areas like make-up water pump house, AWRS pump house, etc. outside plant boudary is not in the scope of the Bidder. Bidder to refer Amendment A-PU-8 to A-PU-15.
62	Section VI/ Part-A/Sub section -IID Section VI/ Part-B	1.00.00 5.13.02	8 47	19. Makeup water system 28. Civil, Structural works for pipe /cable /duct supporting structures, trestles and foundations, trenches, culverts, duct banks, pedestals, hume pipe & culverts, buried pipes, racks, culverts across rail/road tracks for pipes/ drains/ cables and any other facility and thrust blocks etc. associated with all systems covered under the scope. Civil Works for Fire Detection & Protection System in Ground Floor/ Paving In case of rail crossings, NP4 class hume pipe encased in RCC shall be used instead of NP3 class hume pipe.	Bidder understands that NP4 class hume pipe is to be considered for rail crossing for fire protection system.	Bidder to refer Amendment D-2
63	TECHNICAL SPECIFICATIONS SECTION-VI, PART-B SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA TECHNICAL SPECIFICATION SECTION – VI, PART-A SUB-SECTION-IB PROJECT INFORMATION	3.10.00 3.02.00	68 OF 101 1 OF 15	MUW Pumps a).Number of MUW Pumps – 03 x 50% (2W+1S) b). Capacity of each MUW Pump – 3000 Cu.m/hr. Make up water requirement for Talcher Thermal power project, Stage-III expansion (2x660 MW) would be about 40 Cusec with ash water recirculation system.	Discrepancy found between sated clauses. Owner to please clarify plant makeup water requirement.	Bidder to refer amendment A-WS-24 for number and capacity of MUW pumps
64	SECTION VI –Part – A Sub-Section – IIA-09 SCOPE OF SUPPLY & SERVICES FOR MUW	1.00.0	Page 1 of 3	3x50% of capacity Vertical turbine, wet pit type MUW pumps along with electrical motor drives (VFD) along with all accessories	Instead of VFD type motor owner to accept single frequency drive motor for make up pump.	Bidder to refer amendment A-WS-12
65	Part-B, Mechanical, Sub Section A-10				In the absence of inputs, we request Owner to provide the following details of make-up water arrangement for estimation. 1. Tentative locating coordinates of intake well and pump house 2. High flood level of samal reservoir 3. Maximum draw down level of reservoir 4. Maximum and minimum water level of reservoir 5. Soil Resistivity along the make-up pipe corridor	**Bidder to refer Amendment D-2**

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
66	Part – E section - VI Tender drawing No. 4540-001-POC-A-012	-	-	Travelling water screen	In Part – E, section - VI, Tender drawing No. 4540-001-POC-A-012 (Make up water pump house plan & section),In Layout plan & section Travelling Water Screen (TWS) is Indicated along with stoplog gate and trash rack. - However in the scope , specification/ data sheet , detail technical requirement of Travelling water screen is not envisaged. - Please reconfirm the requirement of TWS for make up water system, if required, then detail technical specification of TWS shall be provided.	Bidder to refer Amendment D-2
67	Part – E section - VI Tender drawing No. 4540-001-POC-A-012	-	-	Gantry crane	In Part – E, section - VI, tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section) Gantry crane is mentioned for handling stop logs, trash racks and Travelling water screen. - However in tender document, section-VI, Part-A (EPC Package),subsection make up water system , at clause No.1.00.0,Pg.No.1 of 3,it is indicated to provide 3 Tons (Min) capacity electric hoists for handling stop logs and trash racks in MUW pump house. - Discrepancy in type material handling system (Gantry crane / electrical hoist) for stop logs, trash racks and Travelling water screen. bidder requests owner to confirm the requirement and also provide specification of gantry crane if gantry crane is required.	Bidder to refer amendment A-WS-12 wrt.technical specification section-VI,PART – A , Sub-Section – IIA-09 Scope of supply & services for MUW system Bidder to refer Amendment D-2
68	Part – E section - VI Tender drawing No. 4540-001-POC-A-012	-	-	Pump bay	In tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section),5 Nos pump bays are shown in key plan ,However in plan view & section view 3 Nos of Pump bays are Indicated. - In technical specification section-VI,PART – A , Sub-Section – IIA-09 Scope of supply & services for MUW system at clause No.1.00.0, 3x50% of capacity Vertical turbine pump is Indicated. - Discrepancy in pump bay / quantity (3 or 5 Nos)shall be clarified. - If the Channel, forebay and Pump house needs to be designed for (4W+1S) pump bay requirements, then the revised layout with dimensions shall be provided.	Bidder to refer amendment A-WS-12 wrt.technical specification section-VI,PART – A , Sub-Section – IIA-09 Scope of supply & services for MUW system
69	Part – B, Mechanical Section – VI Sub section-A-01 Equipment sizing criteria	3.11.00	69 OF 101	"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)."	In Part – E, section - VI, tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section) Gantry crane capacity is indicated as 10T. However in the tender document 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 of Technical requirements of MUW pumps and associated equipment's is indicated as EOT crane/hoists should be sized to handle heaviest component to be handled with 25% margin. Bidder presume that crane capacity shall be fixed based the design criteria specified. NTPC shall reconfirm the Bidder Understanding.	Bidder to refer amendment A-WS-25

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
70	section-VI Part – A Sub-Section – IIA-09 (Scope of supply & services for MUW system)	1.00.0	1 of 3	Non return valve at the discharge of each MUW pump is indicated.	In technical specification section-VI, Part – A , Sub-Section – IIA-09 Scope of supply & services for MUW system, Page 1 of 3 (PDF Pg. No. 548 of 2672) at clause No.1.00.0,Non return valve at the discharge of each MUW pump is indicated. - However in tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section) Non return valves are not shown in section view. - NTPC shall confirm the requirement of Non return valve at make water pump discharge.	Bidder to refer amendment A-WS-12 wrt.technical specification section-VI,PART – A , Sub-Section – IIA-09 Scope of supply & services for MUW system
71	Part – E section - VI Tender drawing No. 4540-001-POC-A-012	-	-	Pump discharge header 	In Part – E section - VI Tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section) two Nos of motorised isolation valves with equipment are shown on 3 pipe lines. - Please explain the equipment in between motorised valves and provide it's technical details.	Bidder to refer Amendment no. D-2
72	Part – B, Mechanical, Section – VI Sub Section A-15 CW System Annexure-2 Vertical pumps	4.07.01	26 OF 31	"Adequate number of properly designed bearings shall be furnished. The type of lubrication i.e., self-water lubrication or forced water lubrication shall be provided."	In technical specification section-VI, Part – A , Sub-Section – IIA-09 Scope of supply & services for MUW system, Page 1 of 3 (PDF Pg. No. 548 of 2672), Two (2) Nos of lubrication pumps are indicated for MUW pumps. - In the tender document Part – B, Mechanical, Section – VI, Sub Section A-15 CW System ,Annexure-2 Vertical Pumps. No 26 OF 31 (PDF Pg.No.1824 of 2672) at Clause No.4.07.01 ,Either self-water lubrication or forced water lubrication is indicated. - Also in Part – E, section - VI, tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section) lubrication pumps are not shown. - Bidder understands that lubrication pump requirements are based on pump vendor/OEM recommendations. - NTPC shall check and confirm the same.	Bidder understanding is not correct Bidder to provide Forced water lubrication system with required number of pumps wherever specified in the tender. Further, Bidder to refer amendment A-WS-12 wrt.technical specification section-VI,PART – A , Sub-Section – IIA-09 Scope of supply & services for MUW system
73	section-VI,Part – A Sub-Section – IIA-09 (Scope of supply & services for MUW system)	1.00.0	1 of 3	"Forced water lubrication system consisting… .....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."	In technical specification section-VI, Part – A , Sub-Section – IIA-09 Scope of supply & services for MUW system, Page 1 of 3 (PDF Pg. No. 548 of 2672) at clause No.1.00.0 it is indicated as "Forced water lubrication system consisting… 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." - In the Pump house layout provided, The location of above equipments is not specified. Bidder presumes that , these equipments needs to be designed for outdoor environmental. - NTPC shall note and confirm the same.	Bidder to refer amendment A-WS-12

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
74	Part – B, Section – VI, Mechanical, Sub-Section- A-09 (Low Pressure Piping) SECTION-VI, PART-B SUB-SECTION-D-1-5 CIVIL WORKS	2.09.00 5.18.02.02.03	7 OF 19 PAGE 74 OF 120	"The pipe in general shall be laid with the top of the pipe minimum 1.0 (one) meter below finished general ground level." Trenching for Laying of pipe. Top of pipe shall be minimum 1.5 M below Finished Ground level (FGL) / Natural Ground Level (NGL) as the case may be.	In the tender document Part – B, Section – VI, Mechanical, Sub-Section- A-09 (Low Pressure Piping),Page.No.7 of 19 (PDF Pg. No 1696 of 2672)at Clause No.2.09.00 depth of buried pipe from finished ground level is indicated as 1 meter whereas in tender drawing.No.4540-001-POC-A-014 (MUW Pipeline Routing Below NH,SH & Railway Crossings) it is indicated as 1.5 meter. - NTPC shall confirm the minimum depth of soil cover requirements.	Bidder to refer Amendment no. D-2
75	section-VI Part – A Sub-Section – IIA-09 (Scope of supply & services for MUW system)	1.00.0	1 of 3	"Transient analysis of MUW system, supply and installation of required no. of ARVs (minimum 52 Nos.) of 200 NB size along with stubs & isolating valves."	In technical specification section-VI,PART – A , Sub-Section – IIA-09 Scope of supply & services for MUW system at clause No.1.00.0,Page 1 of 3 (PDF Pg. No. 548 of 2672) ,at subsection make up water system,52 Nos of ARVs are indicated. - Bidder understands that for twin pipe line { ~50 KM = 25 kmx2 } total 52 Nos of ARVs to be installed on both MUW pipes. Also number of ARV's shall be decided based on transient analysis only. - NTPC shall confirm the same.	Bidder to refer amendment A-WS-12
76	Part – B Section - VI Mechanical Sub Section- G-03 Layout requirements	1.01.02	1 of 13	"FFL of offsite buildings =500 mm above FGL of respective area"	In tender document Part – B,Section - VI, Mechanical, Sub Section- G-03 Layout requirements,Pg.No.2 of 15 (PDF No.1052 of 2672) at clause No.1.01.02 at point No.of (d) FFL for off site buildings is recommended to be 500 mm above FGL of respective area. - However in tender drawing No.4540-001-POC-A-012 , FFL for pumphouse is kept 1 meter above FGL. - Kindly check and advise on floor elevation.	Bidder to refer Amendment no. D-2
77	4540-001-POC-A-012 (Make-up water pump house plan & section)	-	-	Anchor requirements	In tender drawing, at both header portion and recirculation pipe lines bends are shown but anchors are not indicated. - Kindly clarify the requirements of anchors for bends (45 ,30, 22 and 11.5 degrees).	Bidder to refer Amendment no. D-2
78	Part – E section - VI Tender drawing No. 4540-001-POM-A-061	-	-	6 Nos of motorised isolation valves 	In Part – E section - VI Tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section) at pump discharge header , upstream and downstream of equipment, two Nos of motorised isolation valves are indicated. Three (3) of lines with total 6 nos of Motor operated valve are requested. - However in tender drawing Part – E, section - VI, Tender drawing No. 4540-001-POM-A-061 6 nos of MOV are not indicated. - Kindly check and clarify the discrepancy.	Bidder to refer Amendment no. D-2
79	Part – E section - VI Tender drawing No. 4540-001-POC-A-012	-	-	Inlet channel cross section	In Part – E, section - VI, Tender drawing No. 4540-001-POC-A-012 (Make up water pump house plan & section),A cross section view at inlet channel shall be shown with details such as slope ,shape of channel (trapezoidal or square),retaining wall details,etc.,for better understanding.	Bidder to refer Amendment no. D-2
80	Part – E section - VI Tender drawing No. 4540-001-POC-A-007	-	-	Nos of MuW Pipes	In Part – E, section - VI, Tender drawing No. 4540-001-POC-A-007 (Layout and details of Raw water reservoir),At section view 5-5,MuW pipe OD diameter is indicated as 813 mm. - Bidder understands that Pipe can be sized based on the limiting velocity criteria as specified in the tender. - Kindly Confirm the understanding.	Bidder to refer Amendment no. D-2

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
81	Section – VI, Part – B Book 4 Of 5 – Civil Works,Sub-Section-D-1-9 Civil Works Architectural Concepts And Design	9.03.01 5.18.01.10	2 OF 31	"All buildings shall have minimum one toilet block each…….drainage and sanitation." Bio Toilet shall be opted for make up water facility area outside the plant boundary. Specifications of same shall be as mentioned elsewhere in technical specifications.	In the tender document, Section – VI, Part – B Book 4 Of 5 – Civil Works,Sub-Section-D-1-9 Civil Works Architectural Concepts And Design. No 2 of 31 (PDF Pg.No.187 of 649) at Clause No.9.03.01,it is indicated that all buildings shall have minimum one toilet block each. - In Technical specification section – VI, Part-B, sub-section-IID,Civil work,Pg. 07 of 13 (PDF Pg.No.735 of 2672) at Clause No.1.00.00, bio toilet block is requested only for the MCC cum control room. - Bidder understands that toilet block is not required for pump room as it is near by of control room where Toilet block is provided. - Kindly confirm.	Bidder to refer Amendment no. D-2
82	Technical specification section – VI, Part-B, sub-section-IID,Civil work	1.00.00	7 of 13	"MCC cum control room, foundation of all the transformers and associated transmission system including one Bio Toilet block"	In Technical specification section – VI, Part-B, sub-section-IID,Civil work, pg. 07 of 13 (PDF Pg.No.735 of 2672) at Clause No.1.00.00, bio toilet block is alone requested only for the MCC cum control room. - Bidder understand that dedicated sewage treatment system with aeriation, dosing etc. is not required for the same. - Kindly confirm	Bidder to refer Amendment no. D-2
83	Part – E section - VI Tender drawing No. 4540-001-POC-A-012	-	-	Desiliting basin.	In Part – E section - VI Tender drawing No. 4540-001-POC-A-012 (Make-up water pump house plan & section),In notes No.7 it is indicated as "Desilting basin has to be constructed by bidder" . However, Desilting basin is not shown in the drawings / layout and also not requested in the detail technical specification. - Desilting basin are normally envisaged for seawater intake systems due to high silt load. Since here intake system is near by barrage, siltation may be minimum and hence desiltation basin is not foreseen. Please confirm the bidders understanding.	Bidder to refer Amendment no. D-2
84	Part – B section - VI Sub-section-D-1-5 civil works Salient features and Design concept	5.18.01.02	66 OF 120	"All bays of MUWPH shall be provided with a removable trash rack including electrically operated hoisting arrangements and cleaning arrangements……."	In tender document Part – B, section - VI, Sub-section-D-1-5 civil works Salient features and Design concept, at clause No.5.18.01.02,Pg.No.66 OF 120 (PDF Pg. No 75 of 649),It is indicated to provide Cleaning arrangement for trash racks. - However in general engineering practice trash racks will be taken out of grooves using material handling system and kept on the floors then cleaning is done manually. - NTPC shall note the same.	Bidder to refer Amendment no. D-2
85	Part – B section - VI Sub-section-D-1-5 civil works Salient features and Design concept	5.18.01.02	66 OF 120	"…….Moreover, one spare trash rack shall also be supplied for MUWPH. Steel embedment required for trash-racks shall be provided for all the bays.."	In tender document Part – B, section - VI, Sub-section-D-1-5 civil works Salient features and Design concept, at clause No.5.18.01.02,Pg.No.65 OF 120 (PDF Pg. No 75 of 649),It is indicated to provide one spare trash racks. - Trash rack is a set of multiple segmented and will be covered from invert level to Maximum water level . - for spare, Kindly clarify is it required to provide complete set { invert level to Max. W.L} or single segment of trash rack for spare.	Bidder to refer Amendment no. D-2

Sr. No.	Section / Part / Chapter / Volume	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
86	section-VI Part – A , Sub-Section – IIA-09 Scope of supply & services for MUW system	1.00.0	1 of 3	Requirement of sump model study	Bidder shall be follow HIS standards for sump & channel design and hence bidder will not perform sump model study. Bidder request owner to confirm.	Bidder to refer amendment A-WS-12
87	Part – E section - VI Tender drawing No. 4540-001-POC-A-013	-	-	Height between maximum water level and Bottom of steel beam	Part – E section - VI ,Tender drawing No.540-001-POC-A-013 ,Height between Maximum water level and Bottom of Bridge is not specified. - Request to kindly provide the same.	Bidder to refer Amendment no. D-2
88	tender drawing No.4540-001-POC-A-012				In tender drawing No.4540-001-POC-A-012 (Makeup water pump house plan and section) , Angle of floor slope is provided as 5 deg. However in plan view Angle of wall convergence at Forebay is not indicated. As per HIS standard this angle is recommended up to 10 degrees. Bidder understands that Wall convergence angle can be considered as per HIS recommendation. Please confirm.	Bidder to refer Amendment no. D-2

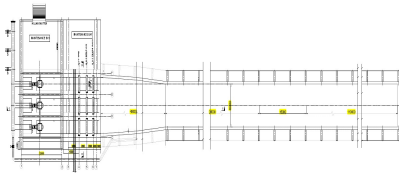
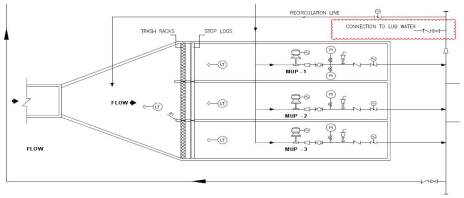
Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
89	Section-VI/Part-A		2 of 13	1.00.00	dismantling of existing railway siding (both inside and outside plant boundary) is also in the scope of the bidder.	a) Dismantling planning on below Rail track from Plant entry gate upto Track Hopper shall be in bidder's scope?. The same has not been shown in Annexure-P : Details of facilities to be dismantled. Please confirm. b)Owner to share the extent of dismantling of railway siding outside plant boundary. The same is not clear from the tender specification/drawing.	Bidder to refer Amendment No. D2
90	SECTION – VI, PART-A	D-1-1	2 of 13	1.00.00	In addition to above, dismantling of existing structures (both below ground and above ground) in ash pipeline and external CHP corridor,	a) Bidder understands that dismantling of external CHP corridor shall be done only where required for laying ash pipeline. Else remaining overground and underground structures will not be dismantled if the same is not fouling with construction of ash pipeline. Please confirm Bidder's understanding. b) Also the ownership of dismantled item pertaining to CHP corridor shall be the property of Owner. Please confirm.	Bidder to refer Amendment No. D2
91	SECTION-VI / PART-A	/Sub-Section-IIA-09/Scope of supply & services for MUW system	2 of 3	2.00.01 - 1	Scope of services for laying of underground piping includes handling,…..…..**draining and pumping out surface water (i.e. water other than water below ground water table)**,…..	Bidder understand that pumping of surface water, achieving dry working conditions as specified herein are specifically during execution time only if required. Please confirm.	Bidder to refer Amendment No. D2
92	SECTION-VI / PART-A	/Sub-Section-IIA-09/Scope of supply & services for MUW system	3 of 3	2.00.01- 5 (ix)	Bidder's/Contractor's scope for fabrication, erection, cleaning, flushing, blowing out, testing and commissioning of the piping systems shall include the following: **ix) All temporary pipe work as required**.	Bidder understand that this requirement is stated here only as construction requirement for temporary purpose (if any). Otherwise, no temporary pipe work is required. Please confirm.	Bidder to refer Amendment No. D2
93	SECTION-VI / PART-A	/Sub-Section-I /Intent of Specification	4 of 8	1.02.00	Solar PV Plants on Roof Tops	Bidder understand that this requirement is not applicable for Make up water Pump House (MUWPH), Make up water control building. Please confirm.	Bidder to refer Amendment No. D2

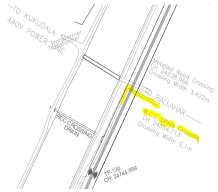
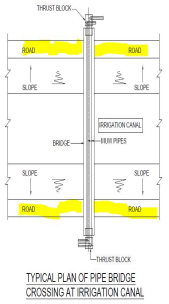
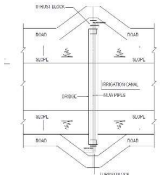
Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
94	SECTION-VI / PART-A	/Sub-Section-IID/Civil Works	7 of 13	1.00.00 19 (ii)	All civil, structural & architectural works associated with Makeup water system including: 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.**	Bidder understand that scope of work consists of RCC channel including desilting arrangement, forebay, sump, Stop-logs and Trash Racks, pump house for makeup water pumps including slope protection. No separate intake structure in river is needed as per the scope. Slope protection work shall be done around the made up area [FGL -RL(+)81.00m] dedicated for the pump house and MCC cum control room, the perimeter length of this protection will be approximately 300 m . Please confirm	Bidder to refer Amendment No. D2
95	SECTION-VI / PART-A	/Sub-Section-IID/Civil Works	8 of 13	1.00.00 19 (ix)	Boundary wall and gates and paving around all the facilities.	Bidder understand that these facilities are required only for make up water pump house building under Make up water system package as per Tender drg 4540-001-POC-A-011 Please confirm.	Bidder to refer Amendment No. D2
96	SECTION-VI / PART-E	TENDER DRAWINGS			4540-001-POC-A-010 (Sht 4) LAYOUT PLAN, L-SECTION AND CHAINAGE DETAILS FOR MAKE-UP WATER	Bidder understand that no intermediate support pier to be placed within canal between TP25 and TP26. Please confirm	Bidder to refer Amendment No. D2
97	SECTION – VI/ PART-E/	TENDER DRAWINGS			4540-001-POC-A-010 LAYOUT PLAN, L-SECTION AND CHAINAGE DETAILS FOR MAKE-UP WATER	a) Bidder request owner to kindly provide the canal cross sections for the following locations :-TP25 – TP26, TP47 – TP48, TP72 – TP73, TP104 – TP105, TP124 – TP125. b) Bidder request owner to confirm about the clearance distance required for foundation from the edge of the canal.	Bidder to refer Amendment No. D2
98	SECTION – VI/ PART-B/	CIVIL WORKS	85 of 120	5.18.06	As per technical requirement :- There are 4 no. road crossings (of PWD/R&B department) 1) TP 30 to TP 31, 2) TP 109 to TP 110, 3) TP 114 to TP 115, 4) TP 120 to 121, as mentioned in tender drawing no 4540-001- POC-A-010, shall be constructed by Bidder.	Bidder request owner to confirm whether hume pipe can be used for all the road crossings.	Bidder to refer Amendment No. D2

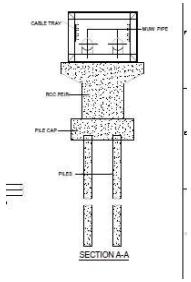
Sr. No.	Section / Part / Chapter / Volume	Sub Section	Page no.	Clause No.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
99	SECTION – VI/ PART-E/	TENDER DRAWINGS			4540-001-POC-A-010 LAYOUT PLAN, L-SECTION AND CHAINAGE DETAILS FOR MAKE-UP WATER	a. Bidder understand that Make up water pipe line route shown vide tender drawing number 4540-001-POC-A-010 will not change during detail engineering. Please confirm. b. Bidder understand that in case of any change in route of Make up water piping corridor with respect to the drawing provided in Tender document, the same shall be compensated to EPC contractor as per provisions of the Tender documents. Please confirm.	Bidder to refer Amendment No. D2

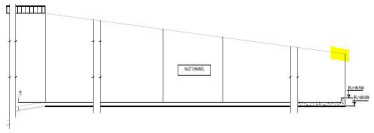
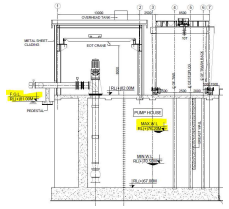
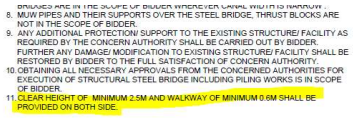
Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
100	SECTION – VI, PART-E, TENDER DRAWINGS _____ SECTION – VI, PART-E TENDER DRAWINGS	- _____ -	Drg.no. 4540-001-POE-J-001 Rev.A _____ DWG. NO. 4540-001-POC-A-011, REV.A	- _____ -	33kV Circuit Breaker Drawout type at MUWPH _____ 33KV Switchgear room is shown at Make-Up water intake end.	1) Bidder understands that the 33kV Circuit Breaker is outdoor type, hence bidder will provide 33kV outdoor breaker panel at MUWPH end. Owner may please confirm. 2) If the 33kV Circuit breaker is Outdoor type, bidder understands that the 33kV Switchgear room is not required. Owner may please confirm. 3) If the 33kV Circuit breaker is Indoor type, bidder propose to place 33kV circuit breaker panel in HT switchgear room. Owner may please confirm.	Please refer amendment no B-31
101	SECTION – VI, PART-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	1.16.02 (IV) & 1.16.05 (v)	10 of 17	33 kV Transmission Line of 28 Km length (approx.) with **(2nos) Single Circuit towers** (narrow based lattice towers with fully galvanised structure) from TTPS plant boundary to Make Up water pump house . The route is along the Make up water pipe corridor. EPC vendor shall optimize the corridor of MUW pipe and 33kV Transmission line in the width of the corridor.	The corridor for MUW pipe line along with transmission line is very narrow area and it is not feasible to place two towers along with pipe line, hence bidder proposes to use **double circuit towers** for 33kV Transmission line. Owner may please confirm.	Please refer amendment no. B-21 and B-22.
102	SECTION – VI, PART-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	1.21.00	13 of 17	Transmission line to AWRS Pump house: Two number **11kV or 33kV single circuit transmission line on poles** for supplying power from plant to AWRS pump house The overhead lines for AWRS Pump house shall generally be laid along the AWRS route. However, exact routing shall be decided during detailed engineering. Scope of work includes route survey for line, civil works, design, supply, erection and commissioning of poles.	The corridor for Overhead line from plant to AWRS pump house is very narrow as the corridor shall be occupied by other system/ equipment, hence bidder proposes to use the **double circuit poles for overhead line.** Owner may please confirm.	please refer amendment no. B-23.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
103	Sec-VI, Part-A,	Sub Section-IIA-16	14 of 18	1.03.01, h)	Thermal stress and transient analysis for the pipeline from mine void end pump house to ash water sump in the plant. Automatic air release valves (ARV) required for the complete piping system along with gate valves shall be provided as per recommendation of transient analysis study. Further based on thermal analysis, anchoring arrangement for the ash water recirculation pipe shall be provided wherever required. In addition to above compliance of all other recommendations of Thermal stress and transient analysis study shall be implemented by bidder.	Bidder understands that transient analysis for ash water recirculation pipe is not required. Kindly confirm Bidder's understanding.	Recirculation pipe from AWRS pump house to plant boundary shall not be under the scope of the package. Hence, Thermal stress & transient analysis for AWRS pipes is not applicable.Bidder to refer Amendment No-A-MH-44.
104	Sec-VI, Part-A,	Sub Section-IIA-16	14 of 18	1.03.01, h)	Thermal stress and transient analysis for the pipeline from mine void end pump house to ash water sump in the plant. Automatic air release valves (ARV) required for the complete piping system along with gate valves shall be provided as per recommendation of transient analysis study. Further based on thermal analysis, anchoring arrangement for the ash water recirculation pipe shall be provided wherever required. In addition to above compliance of all other recommendations of Thermal stress and transient analysis study shall be implemented by bidder.	Bidder understands that thermal stress for ash water recirculation pipe is not required as same having ambient temperature. Kindly confirm Bidder's understanding.	
105	Dwg No. 4540-001-POM-A-030, 4540-001-POM-A-031 Sec-VI, Part-A,	- Sub Section-IIA-16	- 13 of 18	- 1.03.01, C)	Six Barges are shown for Quarry no. 4. Two barges are shown as per drawing 4540-001-POM-A-031. Six (6) Nos (4W + 2S), Pontoon/ Barge floatable into Mine Void .....Pontoon/Barge shall be complete with all structural, electrical, instrumentation etc requirement.	Bidder understands that there shall be total Six (6) Nos (4W + 2S) Pontoon/ Barge pumps shall be in Bidder's scope. Kindly confirm Bidder's Understanding.	Barge mounted pumps shall not be under the scope of the Pkg. Bidder to refer Amendment No-A-MH-40.
106	Sec-VI, Part-B, Dwg No. 4540-001-POM-A-030	Sub Section-G-03 Dwg No. 4540-001-POM-A-030	12 of 16 -	1.02.00, 52) -	Bidder to route ash slurry pipe lines on pedestal and pipe culverts shall be provided at rail/road crossings. As per Y-Y section for few stretch, ash slurry piping area laid on steel structures.	There is ambiguities for laying of ash slurry piping from plant boundary to mine voids as per the stated tender clauses. Request Owner to revisit and provide clarity on ash pipe laying on rail/road crossings.	Ash slurry piping from plant boundary to mine void, shall not be scope under this Pkg. Bidder to refer revised Tender Drw. vide Amendment No- A-MH-56.
107	Dwg No. 4540-001-POM-A-030	-	-	-	Ash slurry pipe garlanding…	Bidder understands that the ash slurry piping shall be garlanded in the stretch as shown in Dwg No. 4540-001-POM-A-030 for quarry no. 4 only. Request Owner to confirm Bidder's understanding.	Ash slurry pipe garlanding shall not be scope under this Pkg. Bidder to refer revised Tender Drw. vide Amendment No- A-MH-56.
108	Sec-VI, Part-B,	Sub Section-A-01	88 of 101	4.01.02, I)	value of friction factor "C" for recirculation pipe is not mentioned.	In absence of input, request Owner to specify the value of friction factor "C" for recirculation pipe running from AWRS PH to plant area AWPH.	Recirculation pipe for AWRS pump house outside plant boundary shall not be under the scope of the package. Value of friction factor "C" may not be applicable.
109	Sec-VI, Part-B,	Sub Section-A-01	-	4.01.02	water quality for decanted water transferred from barge mounted pump to ash water recirculation pump house is not specified.	Request Owner to furnish the water quality (including suspended solids) of decanted water transferred from barge mounted pump to ash water recirculation pump house.	Please refer Amendment in this regard

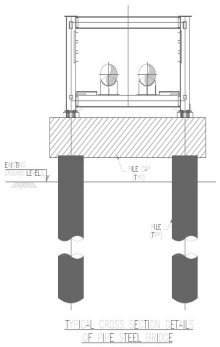
S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
110	4540-001-POC-A-012		PAGE 10 of 31		In 4540-001-POC-A-012 (Make-up water system and associated civil works package),  3. DIMENSIONS OF ALL BUILDINGS/ FACILITIES SHOWN HERE ARE MINIMUM DIMENSION ONLY. EXACT DETAILS SHALL BE FINALISED DURING DETAILED ENGINEERING STAGE.	Bidder understands that provided channel, forebay and sump and pump house dimensions are indicative only. Bidder can decide/ modify the channel, forebay, sump and pump house dimensions as per engineering requirements (i.e HIS standard, velocity criteria and layout requirement etc.). Owner to confirm.	Bidder to refer amnendment A-WS-30
111	Part – E section - VI Tender drawing No. 4540-001-POC-A-061 (Scheme of makeup water system)		PAGE 62 of 73		 	Highlighted tapping for lube water is not required. connection for lube water is provided from MUW header to filters. Owner to check.	Bidder to refer amnendment A-WS-30
112	TECHNICAL SPECIFICATION SECTION-VI, PART-B CIVIL WORKS TECHNICAL SPECIFICATION SECTION-VI, PART-B CIVIL WORKS	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT	74 of 120 85 OF 120	5.18.02.02.05 5.18.06	"Route water pipe through NP-3/ NP-4 **hume pipe culvert** of internal diameter greater than 300mm of external diameter of water pipe by open-cut excavation and seal both ends of pipe with provision of vent pipes at cart road/ drain, local water body crossings and restore/ rectify cut roads, drain, Nalla, etc.." - Make-Up Water Pipe Crossings At National Highway / State Highway / Railway Pipe crossing through **culverts (**Culverts to be constructed by owner) ..... Pipe crossing through culverts (**Culverts** to be constructed by Bidder)	For Rail / Road crossing Hume pipe / box culverts / Encasing requirements are specified in different section of tender specification. However specific requirements are mention in (SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT, 85 OF 120, Clause no 5.18.06) - Bidder understands that clause No. 5.18.06 needs to followed . Kindly confirm .	BIdder to refer Amendment No. D2
113	TECHNICAL SPECIFICATIONS SECTION- VI, PART - B MECHANICAL	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA SUB-SECTION- A-9 (LOW PRESSURE PIPING)	69 of 101 2 of 19	3.11.00 1.13.00	Common Technical Requirement for systems like CW System, MuW,,,,,,,, Unless specifically mentioned, design criteria of Piping, Valves, rubber expansion, should be as per sub section LP Piping. "The recirculation pipe shall be sized for minimum 30%design flow of single pump operation or the recommended flow of the pump manufacturer whichever is higher"	As per tender specification / PID of make up water system, 2 Nos of pump will be working (2W+1S) and recirculation line is taken from the common discharge header. - Bidder understands that recirculation line needs to be sized for single pump minimum operational flow (30% design flow of single pump or pump manufacturer recommended minimum flow of single pump which ever is higher) - Kindly confirm bidder understanding.	For MuW system, bidder to refer amendment A-WS-25. For CW system, bidder to refer amendment A-WS-4

114	Part – E section - VI Tender drawing No. 4540-001-POC-A-010	-	-	-		In tender drawing No. 4540-001-POC-A-013 for crossing nallah larger in size above ground steel bridge details are provided . - However In tender drawing.No.4540-001-POC-A-010 at layout plan between TP-85,CH:15892.574 and TP-86,CH:16080.7325 smaller nala crossing is indicated, details about nalla crossings are not provided. - a) For crossing of smaller nallah bidder understand that, hume pipe/pedestals can be considered for the Nallah width is less than free standing span of makeup water pipes. b)For pond crossing bidder request owner to provide the type of crossing required at near TP-84. -	Refer Amendment No. D2
115	Part – E section - VI Tender drawing No. 4540-001-POC-A-010	-	-	-		In tender drawing.No.4540-001-POC-A-010 at layout plan between TP-129,CH:24369.654 and TP-130,CH:24744.959 RCC drain crossing is indicated. - For crossing of RCC drain bidder understand that, hume pipe/pedestal can be considered. otherwise kindly provide typical cross sectional details of RCC drain and pipe crossing.	Bldder to refer Amendment No. D2
116	Part – E section - VI Tender drawing No. 4540-001-POC-A-013	-	-	-		Pipe bridge is crossing the peripheral road of canal . - Bottom of pipe to maximum water level requirement on the bridge is also specified in the Tender. - Considering the above , it is inferred that pipe bridge will hinder the movement of men and material. - Bidder suggest that road could be diverted locally. Request owner to review and confirm the same. 	Bldder to refer Amendment No. D2

117	Part – E section - VI Tender drawing No. 4540-001-POC-A-013					For section A-A no walkway has shown. Bidder understand that for Nallah crossings no walkway is required along with the pipelines. Please confirm.	BIdder to refer Amendment No. D2

118	Part – E section - VI Tender drawing No. 4540-001-POC-A-012	-	-	-		In tender drawing No. 4540-001-POC-A-012 at the beginning of inlet channel , channel invert level is indicated as RL (+) 69.500 M. - However **Top of channel** elevation is not indicated, Kindly specify the elevation requirements.	BIdder to refer Amendment No. D2
119	TECHNICAL SPECIFICATION SECTION – VI PART-B MECHANICAL PART – E SECTION - VI TENDER DRAWING NO. 4540-001-POC-A-	SUB SECTION A-15 Annexure 2 Vertical Pump 1.00 Scope ….Make up & Raw water Pump -	28 OF 31 -	9.00.00 -	"Maximum Water Level in sump = As per system requirement (Min **0.2** m below FGL)" 	In tender document it is indicated that maximum water level from finished ground level shall be minimum 0.2 m. (Max water level = FGL -0.2= RL (+) 81 - 0.2 = RL (+)80.80 M) - In tender drawing maximum water level is indicated as RL (+) 76.20 M. - since different values are indicated , please confirm the maximum water level to be considered.	
120	TECHNICAL SPECIFICATIONS FOR EPC PACKAGE SECTION VI –Part – A	SUB SECTION– IIA-09 SCOPE OF SUPPLY & SERVICES FOR MUW SYSTEM	2 OF 3	2.00.01	"Scope for services for underground as well as over ground piping also include all crossing like **existing pipe line/ cable,** utility lines, roads, nallah…."	In tender document ,It is indicated that make up water piping has to cross Existing pipe line and cables. - However in tender layout it is inferred that such an existing pipe lines/cables are not available - If existing pipes / cables needs to be crossed , kindly provide the locations and details.	Bidder to refer amendment A-WS-12
121	TECHNICAL SPECIFICATION SECTION – VI PART-B MECHANICAL -	SUB SECTION-A-01 EQUIPMENT SIZING CRITERIA -	68 OF 101 -	3.10.00 -	"Minimum Corrosion allowance of **2** mm."	It could be noted that make up water piping is envisaged with 3LPE coating as primary protection & followed by secondary cathodic protection system. Further 1.6 mm corrosion allowance is being followed for earlier executed NTPC projects such as NABINAGAR , TELANGNA projects. Considering the above we suggest 1.6mm corrosion allowance , request NTPC to kindly review and confirm.	Bidder to refer amendment A-WS-24
122	TECHNICAL SPECIFICATION SECTION – VI PART-B (BOOK 4 OF 5 – CIVIL WORKS) - PART – E SECTION - VI TENDER DRAWING NO. 4540-001-POC-A-	SUB-SECTION-D-1-5 CIVIL WORKS SALIENT FEATURES AND DESIGN CONCEPT -	68 OF 101 -	3.10.00 -	"…….For other water body crossings, such as local Nallah / canal,local water bodies, local drains etc. suitable structural arrangement with **800** mm wide walkway shall be provided....."  8. MUW PIPES AND THEIR SUPPORTS OVER THE STEEL BRIDGE, THRUST BLOCKS ARE NOT IN THE SCOPE OF BIDDER. 9. ANY ADDITIONAL PROTECTION/ SUPPORT TO THE EXISTING STRUCTURE/ FACILITY AS REQUIRED BY THE CONCERN AUTHORITY SHALL BE CARRIED OUT BY BIDDER. FURTHER ANY DAMAGE/ MODIFICATION TO EXISTING STRUCTURE/ FACILITY SHALL BE RESTORED BY BIDDER TO THE FULL SATISFACTION OF CONCERN AUTHORITY. 10. OBTAINING ALL NECESSARY APPROVALS FROM THE CONCERNED AUTHORITIES FOR EXECUTION OF STRUCTURAL STEEL BRIDGE INCLUDING PILING WORKS IS IN SCOPE OF BIDDER. 11. CLEAR HEIGHT OF MINIMUM 2.5M AND WALKWAY OF MINIMUM 0.6M SHALL BE PROVIDED ON BOTH SIDE.	for above ground trestle, In tender document it is indicated to provide 800mm one side walkway. - However in tender drawing it is indicated to provide 600 mm walkway at both side of pipes. - since different values are indicated , Kindly confirm walkway requirements for canal.	BIdder to refer Amendment No. D2

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
123	Section-VI/Part-A	SUB-SECTION-III	3 of 3	5.00.00	Right of use (ROU) permission for make-up water corridor shall be available after 8 months from NOA.	a) Considering the overall project timelines, Bidder request Owner to provide Right of use (ROU) permission for make-up water corridor on or before the date of NOA. b) Bidder understands that make up water corridor includes only Intake pipeline route and Transmission line route, hence land for Make up water pump house & Channel, electrical control bldg etc. will be available on or before NOA. Please confirm.	Bidder to refer Amnendment No. D2
124	Section-VI/Part-A	SUB-SECTION-III	3 of 3	5.04.00	Railways siding land shall be available after 12 months form NOA.	Considering the overall project timelines, Bidder request Owner to provide Railway Siding Land on or before the date of NOA.	Bidder to refer Amnendment No. D2
125	Section-VI/Part-A	SUB-SECTION-III	3 of 3	5.05.00	The area will be handed over as is & where is basis.	a) Bidder understands that dismantling of any existing underground and overground facilities within the railway siding land are excluded from Bidder's scope of work. Please confirm. b) Also in case forest land is encountered, uprooting of trees including necessary permission from statutory authorities are excluded from Bidder's scope of work. Please confirm.	Bidder to refer Amnendment No. D2
126	Section-VI/Part-A	SUB-SECTION-III	3 of 3	5.00.00	Right of use (ROU) permission for make-up water corridor shall be available after 8 months from NOA.	a) Bidder understands that dismantling of any existing underground and overground facilities along the make up water pipeline route and intake pump house area are excluded from Bidder's scope of work. Please confirm. b) Also in case forest land is encountered, uprooting of trees including necessary permission from statutory authorities are excluded from Bidder's scope of work. Please confirm.	Bidder to refer Amnendment No. D2
127	Section VI, Part E, Tender drawing				General Layout of MUW System Drag No. 4540-001-POC-A-009	Bidder understands that the channel and other (forebay, pumphouse etc.) location furnished in the tender drawing are based on Owner's survey and relevant studies. Therefore Bidder do not envisage any change in the same. Please confirm Bidder's understanding.	Bidder to refer Amnendment No. D2
128	Section-VI/Part-A	SUB-SECTION-IID	9 of 13	1.00.00,34 a	The FSR (Feasibility Site Report) attached at Annexure D-1-12(N) is for bidding /reference purpose only. As it is in the process of approval from Indian Railways, the work shall be executed as per the Indian Railway Standards. Executing agency has to prepare the DPR, ESP,SIP & Other necessary drawings and get the approval from Indian Railways.	Bidder understands that approval of FSR from Indian Railways shall be included in Owner's scope of work. Please confirm.	Bidder to refer Amnendment No. D2
129	Section-VI/Part-A	SUB-SECTION-IID	9 of 13 10 of 13	1.00.00,34 b	Above scope of work is not limiting and any increase in the scope with respect to that mentioned in **FSR** will be compensated as below:-	Railway Siding work - Bidder understands that for compensation purpose during detail engineering, change in scope shall be measured with respect to the Bid stage Feasibility Site Report (FSR). Please confirm acceptance.	Bidder to refer Amnendment No. D2

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
130	SECTION – VI/ PART-B/	SUB-SECTION-D-1-5 CIVIL WORKS	84 OF 120	5.18.05	Structural Steel Bridges For Make-Up Water Pipes Crossing At Irrigation Canal/Nallah/ Samal Barrage Reservoir Submergence Area	In case of outdoor walkway for steel bridges, Kindly confirm whether chequered plates or gratings should be provided for walkways.	Bidder to refer Amnendment No. D2
131	SECTION – VI/ PART-B/	SUB-SECTION-D-1-5 CIVIL WORKS	84 OF 120	5.18.05	Structural Steel Bridges For Make-Up Water Pipes Crossing At Irrigation Canal/ Nallah/ Samal Barrage Reservoir Submergence Area :- The entire deck shall be supported on piers. The piers shall be supported on piles and pile cap.	Kindly confirm whether this substructure arrangement i.e. pile cap supported on piles (if required) can be provided for the mentioned locations. 	Bidder to refer Amnendment No. D2
132	Section-VI/Part-A	SUB-SECTION-III	3 of 3	5.00.00	Right of use (ROU) permission for make-up water corridor shall be available after 8 months from NOA.	Bidder understands the soil investigation, topographic survey, bathymetry survey etc. shall be allowed from date of NOA. Please confirm.	Bidder to refer Amnendment No. D2
133	Section-VI/Part-A	SUB-SECTION-III	3 of 3	5.04.00	Railways siding land shall be available after 12 months form NOA.	Bidder understands the soil investigation, topographic survey etc. shall be allowed from date of NOA. Please confirm.	Bidder to refer Amnendment No. D2

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
134	SECTION – VI, PART-E	Dwg. No. 4540-001-POE-J-001, Rev.A	Note-4	1	One complete 400kV GIS dia (Line-III-tie-Line-IV) along with associated GIS duct, AIS equipment, termination cable, cabling, Control & Protection and metering, Civil works etc. complete in all respect as per SLD and technical specification shall be quoted separately in price schedule.	(1) Bidder understand that the complete 400kV GIS dia (Line-III-tie-Line-IV) to be offered as optional and not considered in base offer. (2) Bidder understand that, space for complete 400kV GIS dia (Line-III-tie-Line-IV) in GIS building and space for related control panels in Switchyard control building to be kept in line with clause 1.01.07, Subsection-B-17, Part-B, Sec-VI. Owner may please confirm.	1. Bidder's understanding is not correct. Bidder to consider price of complete 400KV GIS dia (Line -III- Tie-Line-IV) also in base offer. 2. Bidder's understanding is not correct. space for Future bay provision at one end shall be considered after Line #3 -tie- Line#4 bay in line with clause 1.01.07 of Chp B-17, Part-B, Sec-VI. Note-4 is deleted in amendment. Please refer amendmenrt no. B-31

Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
135	Section VI/ Part-A	Section VI/ Part-A/ Sub section- IIA-16	13 of 18	1.03.01	Each Pontoon/Barge shall be capable to float & back upto a distance of 100 m from bank of the Quarry in a Mechanized way, controlled from the bank.	Pontoon / barge movement distance from bank of the quarry shall be inline with Pontoon / barge OEM requirement. Kindly confirm acceptance.	Shall not be under scope of the Package
136	Section VI/ Part-A	Sub section- IIA-16	14 of 18	1.03.01	Two numbers of Dewatering Pump header shall be provided all around the Mine Void Quarry.	Bidder proposes to consider 1 no Pontoon / barge mounted flow for sizing of each header all around the mine void quarry. Please confirm acceptance.	Shall not be under scope of the Package
137	Section VI/ Part-A	Sub section- IIA-16	14 of 18	1.03.01	Two numbers of Dewatering Pump header shall be provided all around the Mine Void Quarry.	Ash Slurry line garlanding is envisaged as indicated by NTPC in Tender drawings. However, Dewatering pump header to be provided all around the mine void quarry. Owner to please clarify scope of road all around mine void quarry.	Shall not be under scope of the Package
138	SECTION-VI / PART-A SECTION-VI / PART-B		2 of 18 32 of 40	1.01.04 6.00.00	(f) Ash water recirculation system for recycling ash water from Mine Void The proposed Ash Water Recovery system shall recycle the decanted water from overflow lagoon/Mine void to ash water pump house	Requests Owner to provide the collected Ash water quality of Ash pond water to decide further treatment.	Shall not be under scope of the Package
139	Section VI/ Part-A	Sub section- IID	2 of 13	1.00.00	In addition to above, dismantling of existing structures (both below ground and above ground) in ash pipeline and external CHP corridor, dismantling of existing railway siding (both inside and outside plant boundary) is also in the scope of the bidder	1. Dismantling of Existing facility at mine end for external CHP is not considered in Bidder scope. 2. Only those facility will be dismantled which are fouling with Stage-III Ash slurry line corridor. 3. Dismantling of facility / area for Ash pipeline corridor inside plant boundary passing through existing Stage-I and Stage-II facility, is not in bidder scope. 4. Any existing Railway crossing, road crossing, UG facility can be reused by bidder after strengthening of the same.	Bidder to refer Amnedment No. D2
140	Section VI/ Part-A	Sub section- IID	2 of 13	1.00.00	In addition to above, dismantling of existing structures (both below ground and above ground) in ash pipeline and external CHP corridor, dismantling of existing railway siding (both inside and outside plant boundary) is also in the scope of the bidder	1. Owner to please provide mark up for dismantling scope of railway siding of inside and outside plant boundary.	Bidder to refer Amnedment No. D2

Sr. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
141	Section VI/ Part-A	Sub section- IID	2 of 13	1.00.00	Under-ground MUW Pipe Line inlet line from Plant Boundary upto Stage- II Raw water reservoir	1. Bidder understand that tap off point from Stage-II make up water line to stage-III raw water reservoir is to be taken during initial operation till ready ness of stage-III make up water line. Please confirm bidder understanding. 2. Further, owner is requested to please provide following information for tapping point from stage-II make up water line 1. Location 2. Flow & pressure 3. Terminal point pipe MOC details	1. Bidder to refer Amnedment No. D2 2. To be dealt during detailed engineering

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
142	Section VI- Part A	Sub-Section-III, Terminal points and exclusions and Owner's input	1 of 3	1.03.00	**Ash handling system :** Employers' cross-country conveyor shall be routed along the Ash slurry disposal corridor from plant end towards mine void where corridor space is limited. Bidder has to ensure that there shall not be any hindrance due to Ash slurry & AWRS corridor for supporting structures of Employers' pipe Conveyor. Employers' pipe conveyor may be taken-up in parallel or in near future.	Bidder requests Owner to provide clear space required for Owner's cross-country pipe conveyor along Ash slurry & AWRS corridor.	Ash slurry corridor outside plant boundary shall not be under scope of the Pkg.

Sl. No	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
143	VI/PART-B	SUB-SECTION-D-1-7	7.02.02 (h)	3 of 12	During design the Allowable Bearing Pressure shall be adopted after approval of geotechnical investigation report. However, the maximum allowable bearing pressure shall be lower of the two values i.e. as per approved geotechnical report and as per the values furnished in Table-1.	Bidder shall consider the safe bearing pressure & Pile capacity with respect to the approved geotechnical investigation report to be conducted during detailed engineering only. Please confirm	Bidder to refer Amendment No. D2
144	VI/PART-B	SUB-SECTION-D-1-7	7.10.00 (a)- 11	10 & 11 of 12	11 | Coal, Limestone and Gypsum Handling System | Minimum one borehole under each TP and one under each crusher and one borehole under each structure. Minimum 6 no of under each stockpile area, 12 nos in Limestone and Gypsum handling area, 8 nos in Track & Truck Hopper area and 8 Nos of ERT | 20 to 30 m	Bidder requests to consider the following number of boreholes. 1) Coal handling system : One (01) borehole under each TP One (01) borehole under each crusher house One (01) borehole for every 50 m length of conveyor One (01) borehole for every 50 m length of Tunnel Minimum Three (03) boreholes in each strock pile area 2) Lime Stone handling area : One (01) borehole for Ramp One (01) borehole for BRU station One (01) borehole for BRU building One (01) boreholes for Crusher House One (01) borehole for Conveyor One (01) borehole for Ball Mill Building One (01) borehole for Limestone Storage Silo 3) Gypsum Handling area : One (01) borehole for Gypsum Dewatering Building One (01) borehole for Gypsum Storage Shed 4) Minimum Six (06) boreholes for track hopper and truck tippler area 5) Minimum eight (08) numbers ERT	Bidder to refer Amendment No. D2

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
145	SECTION VI / PART E/ Tender Drawings				4540-001-POC-A-010 (sht-1 of 23)	Further to Query no. 312, vide Lot 2, Bidder requests Owner to review FGL (81 m) for Make up water pipeline as the NGLs are quite lower (78 m) and substantial quantity of borrowed earth will be required to match given FGL. Bidder requests Owner to review the FGL requirement.	Bidder to refer Amnedment D2
146	SECTION VI / PART E/ Tender Drawings				4540-001-POC-A-013, Rev A PIPE BRIDGE CROSSING AT IRRIGATION CANAL , NALLAH & RESERVOIR SUBMERGENCE AREA	Owner is requested to allow intermediate support inside the existing channel for the pipe bridge structure supporting make up water pipes. Please confirm.	Bidder to refer Amnedment D2
147	SECTION VI / PART E/ Tender Drawings				Drg No. 4540-001-POM-A-041 Cross Country Coal conveyor routing from NTPC plant to coal mine area	Ash pipe layout corridor shall be followed as per tender document. It is understood that remaining space, if available, shall be utilized by Owner for future Pipe conveyors. Bidder shall not undertake conceptual or detail design of foundation for future Pipe conveyors. Please confirm.	Bidder to refer Amendment No A-MH-1
148	SECTION VI / PART E/ Tender Drawings				Drg No. 4540-001-POM-A-030, Rev No. A Proposed routing of ash disposal & AWRS piping and associated facilities	a) Bidder understands that tree cutting (girth more than 30 cm) required for laying garlanding pipes around mine void is excluded from Bidder's scope of work. b) Bidder understands that alignment of proposed inspection road surrounding the mine void shall be constructed above the existing motorable road available along the mine void. Please confirm.	Bidder to refer Amnedment D2
149	SECTION VI / PART E/ Tender Drawings				Drg No. 4540-001-POM-A-030, Rev No. A Proposed routing of ash disposal & AWRS piping and associated facilities Existing rail crossing (tentative)	a) Bidder requests Owner to specify the coordinates of crossings (Railway/Road etc.) envisaged at MCL coal mine area. b) Also necessary shut down shall be taken by Owner for executing civil works in MCL crossing, if required. Please confirm. c) Permission for working within the MCL area shall be Owner's responsibility. Please confirm.	Bidder to refer Amnedment D2
150	SECTION VI / PART E/ Tender Drawings Section VI, Part B	 D-1-5	 36 of 120	 5.05.07	Drg No. 4540-001-POM-A-030, Rev No. A Proposed routing of ash disposal & AWRS piping and associated facilities Single lane maintenance / Inspection road with 1.5m wide shoulders on both sides of the road shall be provided along the entire route of the ash slurry pipeline & recovery pipe line from plant boundary wall to the mine voids along ash pipelines including road for garlanding. Required levelling and grading for ash pipe corridor road shall be provided such that longitudinal slope of road shall not more than 1:30 at any stretch of the road.	a) During the site visit, it was observed that an existing road is already available along the ash pipeline corridor, hence new road will be constructed over the top surface of existing road. Dismantling of existing road is not envisaged. Please confirm. b)Due to limited space availability in majority of the stretch and in order to keep all bidders at par, construction of open drains on either side of the road is not possible and hence the same to be excluded from EPC scope of work. Please confirm.	Bidder to refer Amnedment D2
151	SECTION-VI, PART-B	D-1-5	74 of 120	5.18.02.02.02	The tender drawing provides a general idea about the work to be performed under the scope of this contract. These are preliminary drawings for bidding purposes only and are by no means the final drawing or show the full range of the work under the scope. Work has to be executed according to the drawings prepared by the Bidder and approved by Engineer	Owner is requested to share the document wherein the suitability for the type of intake system is mentioned.	Bidder to refer Amnedment D2
152	SECTION-VI, PART-B	D-1-5	84 of 120	5.18.05	In certain stretches of the pipeline corridor along the irrigation canal, pipes will have to be laid along the slope of the embankment due to space constraints. In such cases, suitable retaining wall shall be provided on the downstream side of canal embankment to retain the pipelines as well as overburden fill above pipelines. In no case, pipelines shall be laid by excavation/cutting the embankment slope	a) While undertaking excavation for retaining wall (including its foundation) and pipeline trench in slope portion, majority of the embankment fill will be disturbed which will require construction of entire embankment from scratch. Hence, alternatively EPC Contractor shall excavate the top part of embankment to the extent required for laying of pipes without disturbing the existing slope profile and subsequently the embankment top surface will be restored as per original. Please confirm. b) Owner is requested to share the layout profile drawing for existing channel and embankment.	Bidder to refer Amnedment D2

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
153	SECTION-VI, PART-B	D-1-5	73 of 120	5.18.02.01.02	The contractor is required to perform his construction activity within the width of acquired land set aside for erection of pipeline or within the Right-of-way area as decided by the Owner.	a) Bidder understands that Right of way for the additional land which will be required for construction activity i.e. for approaching pipeline corridor, temporary laydown area etc. shall be made available by Owner. Please confirm. b) Also forest clearance and tree cutting within the additional area which will be required for approaching pipeline corridor shall be Owner's responsibility. Please confirm.	Bidder to refer Amnedment D2
154	SECTION VI / PART E/ Tender Drawings				Drg No. 4540-001-POC-A-012, Rev No. A Make up water pump house Plan & Section Notes: Dimension of all buildings/facilities shown here are minimum dimension only. Exact details shall be finalized during detail engineering stage.	Bidder understands that the intake channel dimension and invert level mentioned in the tender drawing will remain unchanged as the same has been finalized by Owner based on site investigation and feasibility studies. Please confirm or else clarify Owner's requirement.	Bidder to refer Amnedment D2
155	SECTION-VI, PART-B	D-1-5	35 of 120	5.05.04	The finished floor level (FFL) of Ash Water Recirculation (AWR) pump house complex shall be 500 mm above FGL. However, in order to facilitate approach/connection to the road on top of mine void with AWR pump house complex, if required FGL may be fixed at higher level than 1.5 m above HFL.	Owner is requested to specify the FGL to be considered for Ash water recirculation pump house.	Bidder to refer Amnedment D2
156	General				compound wall along ash slurry corridor is existing.	During site visit, it was observed that there is an existing compound wall along the ash pipeline corridor. Bidder understands that Demolition, Refurbishment and/or reconstruction of this compound wall is not required and excluded from EPC scope of work. Please confirm bidder understanding.	Bidder to refer Amnedment D2
157	Part E Tender drawings					Owner is requested to provide HFL to be considered at canal location where Stage III ash slurry pipe line is crossing.	Bidder to refer Amnedment D2
158	Section VI/ Part-A	Sub section-III	3 of 3	5.04.00	Railways siding land shall be available after 12 months form NOA.	Owner is requested to please mark up on GLP which land for railway siding shall be available after 12 month.	The land outside the plant bounday is under the process of approval of ECR and shall be intimated in due course of time. The land inside the plant boundary is alreay shown in GLP.

Sr. No.	Section / Part / Chapter / Volume	Sub-section	Clause No.	Page no.	Bid Specification Stipulation	Statement of Prebid Queries & Clarification	Owner's Reply
159	SECTION-VI, PART-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	1.15.00	7 of 17	Construction power supply network, **within the plant**, is a temporary arrangement which shall be used during the project construction phase.	Owner may please confirm that, Bidder is allowed to extend the construction power supply from plant area to proposed laydown area for providing electrical power in laydown area.	Please refer amendment no.B-32. in this regards. for locations outside the plant boundary Bidder shall make separate arrangement of suitable capacity as necessary for meeting construction power requirement.
160	SECTION-VI, PART-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	1.15.00	7 of 17	To meet the construction power requirement of the project, the Employer shall provide Two (02) number 6.6 kV sources through two number 220/6.9kV transformers ... ... Supply, erection, testing and commissioning of overhead lines ring mains, single pole /double pole/ four pole structures with switches, fuse, lightening arrestors, LT transformers, 415V switchboards, power and control cables, DC Systems etc. as required **for further distribution for meeting the construction power requirements, shall be in the bidder's scope.**	(1) Owner is requested to provide preliminary route survey for laying Construction power line from plant boundary to proposed laydown area. (2) Bidder understands that, Owner will provide ROW for laying Construction power line from plant boundary to laydown area.	Please refer amendment no. B-32 in this regards. for locations outside the plant boundary Bidder shall make separate arrangement of suitable capacity as necessary for meeting construction power requirement.
161	SECTION – VI, PART-A	SUB-SECTION-IIB ELECTRICAL SYSTEM / EQUIPMENTS	1.16.02 (IV) & 1.16.05 (v)	10 of 17	33 kV Transmission Line of 28 Km length (approx.) with **(2nos) Single Circuit towers** (narrow based lattice towers with fully galvanised structure) from TTPS plant boundary to Make Up water pump house . The route is along the Make up water pipe corridor. EPC vendor shall optimize the corridor of MUW pipe and 33kV Transmission line in the width of the corridor.	Bidder has visited site and observed that the proposed route for transmission line mostly falls along the embankment of adjacent canal. There are various encroachment along the route and at certain places the width of route is very narrow. It is not feasible to place two towers along with pipe line within the available route, hence bidder proposes to use **double circuit towers** for 33kV Transmission line. Owner may please confirm.	Please refer amendment no. B21 and B-22.

S. No.	Sec/Part	Sub Sec	Page No.	Clause No.	Specification Requirement	Bidder's Query	NTPC's Clarification
162	TECHNICAL SPECIFICATIONS SECTION-VI, Part-A	SUB-SECTION-IIA-16 ASH HANDLING SYSTEM	PAGE 11 of 18	1.01.08, 'ii.	Four (04) lengths of combined ash slurry disposal MS pipe lines from combined ash slurry pumps up to Mine Void including garlanding at mine end and extensions into the mine void at number of discharge points complete with basalt lined pipe bends,	Bidder understands that any work related to existing mine void are excluded from Bidder's scope of work. Please confirm Bidder's understanding.	Bidder to refer Amendment D2
163	General					Owner is requested to provide the quality of water available at Quarry 4.	Quality of water (as of now) at Quarry No 4 has been provided in Amendmnet No. 1 in A-MH (Page No. 20 0f 123).
164	Section VI/ Part-A/ Sub section-III	3 of 3	3 of 3	5.10.00	Stage-III Rreservoir and PT Plant to be made ready before dismantling of existing stage-II reservoir and PT Plant.	Owner is requested to please clarify the scope and source of Power supply for Stage-III Raw water pumps and PT plant during initial operation.	Please refer amendment no B-34.
165	Section VI/ Part-E /	4540-001-POC-A-013			PIPE BRIDGE CROSSING AT IRRIGATION CANAL, NALLAH & RESERVOIR SUBMERGENCE AREA	Owner is requested to please provide following details. 1. Maximum water level at canal crossing 2. Maximum water level at Nallah Crossing	Bidder to refer Amendment D2
166	Section VI/ Part-B/ Sub section- D-1-5		5.18.06	85 of 120	There are two railway crossings (TP 132 to TP133 and TP 24 to TP25), one no. road crossing (TP 35 to TP 36), and one no NH Crossing (TP 101 to 102), as mentioned in tender drawing no 4540-001-POC-A-010) for which culverts (Box culvert/pipe culvert) will be constructed bythe owner, However, pipe line laying along with associated RCC pedestal/thrust block and RCC pits at entry/ exit points shall be in bidder's scope	Bidder understand that at railway crossing culvert (which are in Owner scope), cable also shall be laid through culvert along with piping. Please confirm bidder under standing.	Bidder to refer Amendment D2
167	Section VI/ Part-E /	4540-001-POC-A-013			PIPE BRIDGE CROSSING AT IRRIGATION CANAL, NALLAH & RESERVOIR SUBMERGENCE AREA Note 11 : CLEAR HEIGHT OF MINIMUM 2.5M AND WALKWAY OF MINIMUM 0.6M SHALL BE PROVIDED ON BOTH SIDE.	Bidder understands that this shall be applicable for pipe bridge and steel bridge along reservoir submergence area.	Bidder to refer Amendment D2
168	Section VI/ Part-E /	4540-001-POC-A-014			MUW PIPELINE ROUTING BELOW NH,SH & RAILWAY CROSSING TYPICAL SECTION WHERE PIPE CROSSING THROUGH HUME PIPE	Bidder understands that two nos. 200 dia Hume pipe with RCC encasement indicated on both side of Hume pipe of MuW pipe is for Cable routine. Please confirm Bidder understanding. Further, no of hume pipe for cable routine shall be provided based on requirement by bidder. Please confirm bidder understanding.	Bidder to refer Amendment D2
169	Section VI/ Part-B	D-1-12 (I)	1 of 4	1.0.0	This section covers general guidelines and activities to be undertaken by the EPC contractor for using abandoned ash dyke as a Lay down area. An area of 70 acre (approx.) (16 Acres + 24 Acres +30 Acres) indicated in Annexure-J as Area 'A', 'B'& 'C' has been identified for this purpose.	Bidder requests Owner to allow alternative laydown area within 20 km radius from plant boundary with proper fencing & security to avail the payment linked with "receipt" of material/ equipment under Supply contracts. Please confirm	Bidder to refer Amendment no. D1-36 and D1-37. The MRC Payment can be done for alternate location of Laydown area, subject to endorsement of CISF and physical verification of materials by concerned department/EIC.