

Vol- IIIB-Clarification- 2x660MW SURATGARH SUPER CRITICAL UNITS, RRVUNL							
S.No.	VOL No	Section	Clause no	Page No	Particulars	Clarification	Clarifications / Amendments by Owner / Consultant
4.003	III B	D 8	2	1 of 25	CHP	Pl clarify the 2x50% CHP system referred. Pl clarify whether this applies to each of the two parts and whether each part refers to requirement of 1 unit or 2 units.	For each unit 1W+1S conveyor from PCH to bunker and From WT to PCH 1W+2S conveyors as shown in the flow diagram and layout shall be provided
4.004	III B	D10	2.1.1	2 of 7	TG HALL	Pl confirm that the TG hall cranes are not intended to operate in tandem for handling of generator stator.	Confirmed.
4.006	III B	D 15	data sheet A, Sl.no 3	1 of 2	NDCT	Pl confirm that NDCT capacity of 85000cum/hr is indicative only. Bidder will optimise the CW system accordingly.	Please consider CW flow shall be equal to (CW flow through condenser + ACW flow through SG and TG auxiliaries + cooling water flow through other plant auxiliaries)x1.05
4.007	III B	D16	2.0	1 of 10	MRHS	Pl confirm in place of belt conveying system, pneumatic conveying system is acceptable for Mill reject handling system.	Acceptable. Bidder can quote Pneumatic conveying system as an additional option
4.008	IIIB	D4	1.0	1/23	River water terminal point	We understand that the river water piping will be terminated by OTHERS at the reservoir inside the power plant. Please confirm.	River water system is included in Bidder's scope. For scope and terminal points, Please refer the attached River water system flow diagram.
4.009	IIIB	D4	1.0	1/23	Bulk chemicals	For this plant phosphate and hydrazine are not applicable. So bulk chemical as mentioned here is not applicable. Also since ammonia use is limited application, please review need for ammonia bulk storage.	Phosphate and hydrazine dosing system is deleted from scope of supply. Please refer amendment. please refer the Volume-IIIA section-C1 sheet 28 of 34 for chemical dosing system in Turbine cycle.
4.013	IIIB	D4	2.2.1	2/23	RW reservoir	Our understanding is that the boats mentioned in clause 2.2.1 is for the purpose of use in weed control/algae control.	Yes, Please consider as per specification. Data sheet is attached.

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4.014	IIIB	D4	3.2.3	2/23	RW Pumps	Min recirculation will be sized for 50% of one pump capacity, Please confirm.	Percentage of recirculation line shall be decided based on pump vendor data. Percentage of recirculation shall be in bidder scope.
4.015	IIIB	D4	2.2.2	2/23	RWPH	As electrochlorination is common for CW and RW system, it will not be located in the RWPH but in a separate place. Please confirm.	Electro chlorination system for plant is common. But it is independent dosing system for plant Raw water pump house, CW system, Potable water for plant and colony. Same has mentioned in volume IIIB section-D4.2 sheet-1 of 9.
4.016	IIIB	D4	3.4.1	3/23	Stilling chamber	Please clarify if the stilling chamber is common for the clarifiers (i.e- one number stilling chamber is provided after aerator common for clarification plant) or is it only for the main clarifier. Please confirm.	Please consider the independent stilling chamber for DM clarifier and main clarifier. Bidder can use common stilling chamber, parshall flame & flash mixer for main clarifiers.
4.017	IIIB	D4	3.5.2g (and 3.6.2e)	4/23	Post chlorination	Post chlorination will also be from the electrochlorination plant. Please confirm.	Confirmed.
4.019	IIIB	D4	3.6.2d	5/23	Sludge handling for DM clarifier	Common sludge handling system for the DM clarifier and non DM clarifier will be proposed. Please confirm.	Yes, Sludge handling system is common for DM clarifier and main clarifier. Further details on sludge handling system please refer the volume IIIB, section-D4, sheet- 7 of 23.

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S.No.	VOL No	Section	Clause no	Page No	Particulars	Clarification	Clarifications / Amendments by Owner / Consultant
4.021	IIIB	D4	5.2.6	13/23	CW chemical dosing and chlorination	Electrochlorination plant and CW chemical dosing systems will be located in a separate building outside of the CWPB.	Electro chlorination plant shall be housed in separate building. Chemical dosing system shall be in apart of CW pump house building. Amendment - Cl 5.2.6, Sh 13 of 23, Sec D4, Vol-IIIB; "Circulating water pumps shall be located in an RCC building which shall also accommodate ACW pumps, CW chemical dosing & chlorination systems." shall be read as "Circulating water pumps shall be located in an RCC building which shall also accommodate ACW pumps, CW chemical dosing. Electro chlorination plant shall be housed in separate building"
4.023	IIIB	D4	7.4	14/23	NDCT	As NDCT is specified, a recirculation allowance as mentioned here is not applicable. Please review and confirm.	As NDCT is to be provided. It is not applicable
4.026	IIIB	D4	8.5	15/23	Turbine oil cooler	Bidder may choose to supply the turbine oil cooler with DMCW instead of secondary circuit water. Please note that in the water system scheme also secondary circuit ACW is shown for vacuum pump coolers only.	Acceptable. Turbine oil cooler shall be supplied with DMCW instead of secondary circuit water. Please refer amendment.
4.027	IIIB	D4	8.6 iii	15/23	Air compressor of plant	As per the drawing FD-1010, the air compressors and AHP are cooled by the ACW water directly and not DMCW. Please review and confirm if this scheme can be followed.	Please consider the DMCW water for Plant air compressor. Pumps and PHE's for the same in mentioned in Volume-IIIB section-D4, sheet-15 of 23 clause no: 8.2. Water balance is amended.

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4.028	IIIB	D4	9.1	16/23	APH/ESP washing	These pumps will draw water from the blow down water storage tank. Booster pump is not applicable. As this is intermittent service, 2 pumps (1W+1S) common for the two units can be provided. Please review and confirm.	Please consider common wash water pumps for ESP/APH wash. Please refer amendment
4.030	IIIB	D4	10.2	16/23	Colony potable water	Please confirm that the terminal point of the colony potable water piping will be at the plant boundary. We request that the location of the terminal point at boundary be defined approximately.	Terminal point for colony potable water shall be 6m away common discharge header.
4.031	IIIB	D4	10.4	17/23	Plant and colony potable water	Chlorination will be through hypo solution from the electrochlorination plant. Please clarify the requirement for dechlorination using ACF because both potable water (plant and colony) are taken to storage tanks.	1. Acceptable. 2. Dechlorination is not required for potable water (plant and colony).
4.032	IIIB	D4		23/23	Service water for colony	We understand there is no separate service water. Only potable water is supplied and we request that the terminal point for this will be at the power plant boundary.	Yes, Service water for colony is not in bidder scope & terminal point for colony potable water shall be 6m away common discharge header.
4.033	IIIB	Data sheet A for PT plant	Item I	5/5		Post chlorination will also be from the electrochlorination plant. Please confirm.	Chlorination system for plant is common. But independent dosing pump shall be considered for each system.
4.034	IIIB	D4.2	A5	1/9	EC system	The electrochlorination system will also be used for potable water chlorination, post chlorination. If required it will also supply hypo for the STP. Please confirm.	Chlorination system for plant is common. But independent dosing pumps shall be considered for each system. Yes. If Chlorine dosing is required for STP. Please consider the same in Sizing calculation of EC system.

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S.No.	VOL No	Section	Clause no	Page No	Particulars	Clarification	
4.035	IIIB	D4.2	1.02	1/9	EC system	Shock dosing is for CW system only. Please confirm. Shock dosing will be for 30 minutes in a 8 hour shift. Please confirm.	Yes. Shock dosing system is only for CW system and duration of shock dosing is 30 min per shift (8 hours shift). For further detail please refer Volume-IIIB section-D4.2 sheet 1 of 9.
4.036	IIIB	D4.2	3.02	9/9	Warranty	Please clarify what is "prorated" mean in this clause?	"prorated" mean that "pro-rata"
4.037	IIIB	D4.3-DM plant data sheet	8	1/2	WBA	Please clarify if WBA is a must or Bidder can chose provision of WBA as per water analysis.	Same shall be optional to bidder as per water analysis.
4.041	IIIB	D5	5.0	1/2	Coal stockpile runoff	Coal stockpile run off will be directly pumped to CMB or to the ash water tank for utilisation in the AHP. As settling tank is used no further treatment is done. Please confirm.	Run of water shall led to ETP Clarifier. Revised water balance diagram will be issued for the same.
4.042	IIIB	D5	10.0	2/2	STP for colony	As per exclusion list, colony STP is excluded. Please confirm exclusion.	Confirmed.
4.043	IIIB	D5	10.0	2/2	STP	Where possible sewage from different buildings will be grouped and conveyed to the sewage treatment plant. Dedicated lines for each building is not considered a mandatory requirement. Please confirm.	Confirmed.
4.044	IIIB	D5 - General requirements	3.0	1/2	Fly ash utilisation	The AHP will be provided as per spec, fly ash utilisation from the power plant as per relevant MoEF requirements is responsibility of Owner. Please confirm. For construction phase if any such requirement is applicable, same will be adopted by Contractor.	Acceptable.

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S.No.	VOL No	Section	Clause no	Page No	Particulars	Clarification	Clarifications / Amendments by Owner / Consultant
4.046	IIIB	D5 - General requirements	7.0	1/2	Colony waste water	As per exclusion list, colony STP is excluded. Please confirm exclusion.	Confirmed.
4.051	IIIB	D5- Data sheet A	1.3	1/2	ETP	This clause indicates RO plant. But in water system scheme the RO plant is not shown. Please clarify whether RO is to be provided in the plant.	Bidder to achieve the ZERO DISCHARGE concept. Type of scheme adopted for ZERO DISCHARGE system shall be in bidder scope.
4.054	IIIB	D6	4/0	3/8	Emergency hydrant system	A dead storage for fire water is not considered in the service water tank, please confirm. We understand that the makeup water to the tank is from the hydrant header during emergency. The service water pumps need not be sized to supply fire water. Please confirm.	Please consider the fire water pumps in CMB. Dead storage for fire water pumps shall be 3000 cu.m. same indicated in water balance diagrams.
4.055	IIIB	D6	4/0	3/8	Service water tank	Please indicate capacity of the service water tank or criteria for sizing of the tank. Please clarify how many hydrants simultaneous operation is expected.	Bidder to decide.
4.058	IIIB	D6	Data sheet Sl. No. 2.1	1/5	Tanks	Please clarify difference between "Main Oil tank" and "Mail lube oil tank"	Main oil tank and lube oil are same. Please delete one from HVWS system.
4.059	IIIB	D6	Data sheet Sl, No. 6.3	4/5	Fire tender	Please clarify the number of fire tender and foam tender required.	Please consider two no. fire tender as per specification.
4.060	IIIB	D7	12.1.11	11/22	Bypass valves	We understand this chapter is primarily for the low pressure piping. The clause 12.1.1 is applicable for the power cycle piping only. Please confirm that the integral bypass valve requirement mentioned in this clause is not applicable for low pressure piping systems in balance of plant.	We confirm that integral bypass valve requirement is not applicable for low pressure piping.

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S.No.	VOL No	Section	Clause no	Page No	Particulars	Clarification	Clarifications / Amendments by Owner / Consultant
4.061	III B	D 8	2.0	1 of 25	CHP	Pl clarify the 2x50% CHP system referred. Pl clarify whether this applies to each of the two parts and whether each part refers to requirement of 1 unit or 2 units.	For each unit 1W+1S conveyor from PCH to bunker and From WT to PCH 1W+2S conveyors as shown in the flow diagram and layout shall be provided
4.062	IIIB	D8	2.1	2/25	Coal lab	Please clarify if the coal testing lab mentioned in this clause is separate from Owners lab. Is it required to provide separate set of coal testing equipment for the third party lab? If so please provide the list of testing equipment for this.	Yes separate set of coal testing equipment for the third party lab shall be supplied. For list of testing equipment please refer s.no. 13.2.2, section D4, sheet no. 19 of 23, Volume III Part B.
4.064	IIIB	D8	3.1.72	13/25	Crusher house handling facility	Normally for the crusher house electric hoists are only provided. However is crane is required, we suggest that underslung electrically operated crane be provided for the crusher house. Please review and confirm.	Acceptable and same will be reviewed during detailed engineering stage
4.065	IIIB	D8	3.1.74	13/25	Bull dozer shed	We suggest that underslung crane electrically operated can be provided for the bull dozer shed. Please review and confirm.	Acceptable and same will be reviewed during detailed engineering stage
4.066	IIIB	D8	3.1.77	13/25 and 14/25	Coal stockpile runoff	We understand that the runoff pit referred in the first para and twin chamber runoff pond referred in second para are the same. Please confirm. The run off pit base is earthen with edges protected with concrete, side slopes of concrete blocks as specified in this clause. The sump where the pumps are located with be complete RCC. Please confirm.	Yes. Confirmed

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4.067	IIIB	D8	3.2	15/25	MCC buildin	Near the wagon tippler area the building can be G+1 with control room also located in the same MCC room floor. Please confirm if this arrangement is acceptable. The lab for third party coal testing will be in the same building.	Acceptable and same will be reviewed during bid discussions
4.068	IIIB	D8	3.2	15/25	Office/stores	Please inform the approximate area required for the office cum stores. Can this be part of the CHP MCC and control room building.	10 Nos room for maintenance staff of room size (12 x 12 ft.) to be provided at I / II floor along with hall of 350sq.ft and also 8 Nos. stores of size 20 x 20 ft. to be provided at ground floor. Toilets and bathrooms for the staff is also to be provided. Proposal of above building could be part of MCC & Control building could be reviewed during detail engineering.
4.070	IIIB	D9	2.1	1/14	Eco ash	Please clairify if the flushing apratus can be provided below eco hoppers to brind to BA hopper.	Yes. Flushing apratus shall be provided below ECO hoppers
4.071	IIIB	D9	2.4	3/14	Garland piping	Please indicate length of garland piping to be considered.	Ash slurry pipe garlandling in the ash dyke is included in bidder scope of work. Construction of Ash dyke is excluded from Bidder's scope. Amendment - Cl.2.4, Sh 3 of 14, Sec D9; 15m Static lift considering future bund rise. Each garlanding pipe length shall be minimum 25m. Minimum 8 outlets along periphery of the ash pond shall be provided.
4.074	III B	D9	4.1 e)	5 of 14	FA DESIGN	As per this clause, FA design quantity is 90% where as as per cl 10.8, page 12 of 14, 95% is specified. Pl clarify.	Please note that in both clauses FA shall be 95% is indicated and bidder to consider the same

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S.No.	VOL No	Section	Clause no	Page No	Particulars	Clarification	
4.075	IIIB	D9	9.0	11/14		We understand this clause is not valid as it is EPC tender and provisions of guarantees are separately covered in the Sec-C.	Acceptable. Please refer Volume-II section for Performance guarantee and auxillary power consumption
4.079	Data sheet A14, ash system piping	D9	2.1	1/5	Dry fly ash piping	The dry fly ash piping will be MS ERW with heavy class/9.53 mm thickness. Basalt lining is not required for the straight lengths but for the bends only as indicated in 2.2.1. Please review and revise.	Acceptable
4.081	III B	D10	2.1.1	2 of 7	TG hall crane	Pl confirm that the TG hall cranes are not intended to operate in tandem for handling of generator stator.	confirmed
4.082	IIIB	D10	1.3	1/7	RWPH crane	The RWPH crane can be underslung type as capacity is less.	Acceptable.
4.083	IIIB	D10	2.1.1	2/7	Crane in TG hall	The specified capacity is quite high, if the crane is not handling stator with tandem operation. We request that criteria be specified instead of capacity.	Criteria is indicated in cl 2.1.1 & 2.3.
4.084	IIIB	D11	2.2	1/9	Warehouse	Please provide details of ware house or stores required.	For non plant buildings, Bidder to follow the sizing of L X B as per write-up in Vol-VI. However the total area requirement will be as per guidelines given in Vol-VI. For plant buildings, bidder to follow the process requirements keeping the sizes as indicated in the plot plan as minimum.
4.085	Drg 1011				Air system	The no. of service air compressors will be 3 nos. as per spec and not 4 nos. as indicated here. Please confirm.	4 nos. of service air compressors shall be provided

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4.086	IIIB	D12	3.1	3/28	AC system	Please clarify if the Bidder can offer a central AC plant covering the AC requirement of a) ESP buildings b) service bldg (which is located next to the power house building). This arrangement is followed in similar power plants. It reduces the number of AC units, pumps and cooling towers in the plant and also improves overall efficiency.	Acceptable. However we observed there won't be any change in no. of AHUs and also Chilled water piping quantity will increase. Hence we suggest bidder to check for the adaptability of Central AC Plant covering the requirements of ESP Buildings and Service building (Distance between both the buildings is approximately 200 meters). Bidder shall also consider the criticality of routing the insulated chilled water piping.
4.088	IIIB	D12	3.1d	3/28	AC system	Chemical house is not provided with AC. Please clarify.	Chemical house (PT Plant) shall be ventilated.
4.089	IIIB	D12	3.1d	3/28	AC system	For conference rooms it is suggested to provide air cooled split units, as these rooms are used for limited period of time.	Acceptable.
4.090	IIIB	D12	3.1c	3/28	AC system	For control rooms like AHP and CHP where the AC load is less than 20TR air cooled package units can be used. Please review and confirm.	Acceptable.
4.091	IIIB	D12	4.6.1	7/28	AC ducting	The false ceiling space may also be used for return air to the AHU. Please confirm.	Acceptable.
4.092	III B	D 12	1.1.1	16 of 28	Ventilation system	Inside temperature will be less by 3-4 deg.c instead of 5-6deg.C. Pl confirm	Bidder shall follow the inside temperature as 5°C to 6°C less than ambient for TG bldg., MCC Room and ESP Switchgear room. However for all other ventilated areas bidder to maintain the inside temperature as 3°C less than ambient.

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S.No.	VOL No	Section	Clause no	Page No	Particulars	Clarification	Clarifications / Amendments by Owner / Consultant
4.093	III B	D 15	data sheet A, Sl.no 3	1 of 2	Natural draft cooling tower	Pl confirm that NDCT capacity of 85000cum/hr is indicative only. Bidder will optimise the CW system. For 660 MW this capacity is very high and for similar power plants the capacity is much less.	Please consider CW flow shall be equal to (CW flow through condenser + ACW flow through SG and TG auxiliaies + cooling water flow through other plant auxiliaries)x1.05
4.096	III B	D16	2	1 of 10		Pl clarify whether in place of belt conveying system, pneumatic conveying system is acceptable for Mill reject handling system.	Bidder has the option of suppling both types.
4.097				GA-1001	Plot plan	In the proposed area for U5&6, there are a number of existing structures shown (belonging to U3&4 construction). Please confirm that RVUNL will arrange to demolish the structures and clear the debris from these structures. Any live cabling and in service piping shall also be removed from these areas by RVUNL or their contractors.	Super critical unit are Units 7 & 8 and not Unit 5 & 6.
4.098				GA-1008		In the turbine hall layout, two central lube oil system is shown. Our understanding is that there is only one system for the two units. Please review and confirm.	Confirmed
4.101	III B	D9	4.1 e)	5 of 14		As per this clause, FA design quantity is 90% where as as per cl 10.8, page 12 of 14, 95% is specified. Pl clarify.	95% may be considered.
4.104	III B	D 11	2.400	2 of 9	COMPRESSORS	Total number of SA compressors are 3 as per this clause. Also data sheet A specifies 3nos., where as Drg TCE.5749A-640-FD-1011, 4 numbers are indicated. Pl clarify.	4 number is to considered.

NOTE : with respect to other pre bid queries raised by bidders not exclusively indicated in the clarification/amendment table, Bid specification shall prevail

Pre Bid Queries on Tender Specifications - Vol - IIIB
2x660 MW Super Critical Thermal Power Station, Stage V, Units 7 & 8 at Suratgarh, Rajasthan

S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
	Water Treatment Plant					
1	Volume IIIB, Section D4	3 of 23	3.4.3	Minimum 6 stages of aeration shall be provided	We understand 6 steps for cascade aearator are required as minimum and not stages. Please confirm.	Number of stages or steps will remain are same.
4	Volume IIIB, Section D4	8 of 23	4.3 & Water balance diagram TCE.5750A-610-FD-1010	Tender document specified DM plant configuration as 3 x 70% where as WBD specifies as 3 x 60%.	Please clarify the configuration.	Please consider as per data sheets & WBD is amended.
5	Volume IIIB, Section D4	8 of 23	4.3 & Water balance diagram TCE.5750A-610-FD-1010	---	Please clarify whether existing plant demineralized water can be made available for commissioning & cold start-up of the plant. If yes, please furnish the following: 1) existing DM plant capacity 2) existing DM water storage tanks 3) quantity that can be spared from existing DM plant	Existing facilities are inadequate for proposed expansion. Commissioning and cold startup shall be met from the proposed new DM plant.
10	Volume IIIB, Section D5	2 of 2	3.0 Treated water guarantees,	The waste water treatment system shall be designed to collect waste water from all sources in the power plant and provide treatment to enable it to be reused in the power plant to achieve ZERO DISCHARGE. The quality of effluent shall conform to the requirements of reuse.	To achieve treated water guarantees mention in tender document, RO based effluent treatment plant will be required. Please confirm.	Bidder to achieve the ZERO DISCHARGE concept. Type of scheme adopted for ZERO DISCHARGE system shall be in bidder scope.
15	General				Please clarify the number of stream to be considered for electro chlorination system	Number of streams for Electro chloriantion shall be dicided bybidder based on design creteria / dosing requiement specfied.
Air conditioning and Ventilation						
16	Volume-IIIB / Section:D12	1 of 28	1.2.2.b)	Relative Humidity : Not exceeding 60% for office areas & 50% for all control rooms.	Relative Humidity for control rooms shall be maintained as 50±5 %.	Acceptable.
17	Volume-IIIB / Section:D12	3 of 28	3.1.c) 3.1.d)	ESP Control room,DM Plant Control room, Chemical lab in DM Plant building, Coal handling system control room, Ash handling system control room, Switchyard control room & Switchyard relay room, Chemical house (PT plant) , conference rooms & chemical lab shall be air conditioned by means of adequate number of separate DX plant (water cooled) or water cooled packaged air conditioners (with cooling towers & cooling water pumps) with suitable number of working & common standby units.	We propose air cooled package air conditioners instead of water cooled package air conditioners. Please confirm acceptance. Further, chemical house (PT) plant does not require air conditioning. Hence, ventilation will be provided.	At peak load conditions, air cooled package air conditioners consume over 30% more power than water cooled units. Also compressor capacity drops over by 10% for air cooled machines compared to water cooled units. Hence we strongly recommend going with water cooled package air conditioners. However Chemical house (PT) plant can be ventilated.
19	Volume-IIIB / Section:D12	23 of 28	4.7.f)	Neck velocity for supply air grille & return air grille shall be 2.5 m/s.	Neck velocity for supply air grille to be 3.5 m/s for ventilation package.	Acceptable.

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2x660 MW Super Critical Thermal Power Station, Stage V, Units 7 & 8 at Suratgarh, Rajasthan

S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
	CW,ACW & CCW System					
22	Volume IIIB, Section D4	12 of 23	5	No Side stream filtration is envisaged for this project.	We understand, no side stream filtration unit has been envisaged for circulating water treatment for TSS removal. We would like to reiterate that the effectiveness of CW chemical treatment system will be reduced without any treatment for TSS removal and the consumption of such chemicals will be high. Therefore, it is recommended to install side stream filtration unit for the circulating water. OWNER is requested check & confirm about the requirement of the side stream filtration unit.	We have specified filter water for CT make-up. Hence Side stream filter for CW system is not required.
24	Volume IIIA, Datasheet A16	3 of 12	1.1	Piping Material (Pipes, Fittings, flanges) from 65 NB to 800 NB size is mentioned with rubber lining of 5 mm thk.	Since, CW make up water shall be filter water, rubber lining is not required. We shall provide piping & accessories suitable for river water application.	Please refer amendment
	Fuel Oil					
27	Volume IIIB, Section D14	Sh. 1 of 10	1.1,	HFO shall be brought to site by railway wagons each of 35 T capacity.	Please clarify type of Railway wagon envisaged. Generally wagons for HFO have payload capacity of 25 cu.m or 70. cu.m.	BTPN Oil Wagons (70 cu.m) is envisaged alongwith other types of wagons. However, unloading pump capacity shall be considered as per specification.
28	Volume IIIB, Section D14	sh. 1 of 10	1.3.2	For HFO unloading consider a wagon retention time of 5 hours for heavy oil unloading. Pump capacity is calculated considering 3 hours of active pumping time.	Total unloading time of 8 hrs and active pumping time of 5-6 hours would result in optimized unloading system and pump house. Please confirm.	As per railway gudelines total free time for unloading from placement to release of wagons shall be 5 hours only. The same shall be considered as per specification only.
31	Volume IIIB, Section D14	sh. 4 of 10	3.0, HFO DRAIN TANK 3)	Design code: IS 800 Type of tank: Rectangular	IS 800 does not define design of rectangular tanks. The same shall be designed as per standard engineering practice.	Bidder to note that IS 800 is Code of practice for general construction in steel .
32	Volume IIIB, Section D14	sh. 5 of 10	3.0, HFO DRAIN TANK 11)	Floor coil heaters: Not applicable	Please check & confirm that floor coil heater for drain oil tank is not required.	Floor coil heater is required.
	COAL HANDLING SYSTEM					
33	IIIB / D8	2 of 25	2.1 a)	Each of the wagon tipplers shall also be provided with one No JCB / Hydraulic excavator with bucket with rock arm arrangement for breaking large size lumps received if any.	Please provide the capacity & design criteria for one No JCB / Hydraulic excavator. Please specify basic parameter/ model number of JCB/ Hydraulic excavator to be considered,	Hydraulic excavator with rock arm assembly model BE75 of BEML or equivalent
34	IIIB / D8	3 of 25 6 of 37	2.3 Data sheet A	However the rated capacity of stacker cum reclaimers shall be 2000 TPH while stacking and average reclaiming capacity shall be 1500 TPH. Peak Reclaiming capacity of the reclaimers shall be 2000TPH Average reclaiming capacity : 765 TPH. Peak Reclaiming capacity : 1000 TPH.	Due to discrepancy, we are considering the average reclaiming capacity (rated) shall be 765 TPH & Peak reclaiming capacity (design)shall be 1000 TPH. Please confirm.	Confirmed. Please refer amendment

Pre Bid Queries on Tender Specifications - Vol - IIIB
2x660 MW Super Critical Thermal Power Station, Stage V, Units 7 & 8 at Suratgarh, Rajasthan

S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
35	IIIB / D8	13 of 25	3.1.73	One (1) passenger cum goods elevator shall be provided in crusher house.	We understand that client's requirement is 1 Te capacity Rack & Pinion type Passenger cum goods elevator. Please confirm. Please provide the total no. of elevators for whole coal handling system as there are total four crusher house (Two nos. i.e. primary and secondary crusher house for each unit)	Passanger cum goods elevators in all crusher house shall be provided. Same shall be of Rope type only
36	IIIB / D8	13 of 25	3.1.76	Two (2) nos. of ERH are to be provided on each stacker.	Please specify the capacity of ground hopper. Also specify the capacity of reclaim conveyor below reclaim hopper.	Capacity of the reclaim hopper shall be Minimum 90.0T as per data sheet A Cl. No. 10.0 Sheet 24 of 37. Capacity of the reclaim conveyor shall be designed for 1000 TPH
37	IIIB / D8	13 of 25 25 of 37	3.1.77 Data sheet A	Run-off pit near coal stockpile area shall be designed for 30 minutes retention time considering intensive rainfall recorded. Capacity : Based on max. rain fall to suit 10 hours storage	Please confirm that the run-off pit near coal stockpile area shall be designed for 30 minutes retention time considering intensive rainfall. Please confirm value if rain fall to be considered for pit sizing.	Run-off pit near coal stockpile area shall be designed for 30 minutes retention time considering intensive rainfall recorded.
39	IIIB / D8	1 of 37	Data Sheet A	Capacity of the conveying system	Please reconfirm that the capacity of the conveying system form wagon unloading to stockpile shall be 2000 TPH (rated) & 1000 TPH (rated) from stockpile to bunkers.	Form wagon unloading to stockpile shall be 2000 TPH (rated) & 1000 TPH (rated) from stockpile to bunkers.
40	IIIB / D8	5 of 37	Data Sheet A	Apron feeder	Please indicate the capacity of apron feeder	2000TPH Rated
41	IIIB / D8	24 of 37	Data Sheet A	Wagon tippler hopper	Please indicate the capacity of wagon tippler hopper.	Minimum 200 T as per data sheet Cl. No.9 sheet 9 of 37
42	IIIB / D8	31 of 37	Data Sheet A	Quantity : Five (5), One (1) no. in wagon tipping area for sampling as received coal. Two (2) nos. before crushing and (2) nos. after crushing.	Please check and confirm the quantities for coal sampling system at wagon tipping area.	Total Five (5) nos. shall be provided as per enquiry specification
43	Volume-III, Section: D8	2 of 25	2.1 b)	Imported coal....Coal shall be extracted from wagon tippler...stacked using bucket wheel type stacker cum reclaimr bypassing the screens and crushers	A) Refer Flow Diagram, drg no. TCE.5750A-FD-1013, rev P1 : there is no provision of bypassing the incoming coal from Vibrating screens & secondary crushers. We understand, bypass is not required for Secondary screens & crushers. Please clarify.	Amendment - TCE.5750A-FD-1013, Vol-VII; BY pass in secondary crusher provided.
44	Volume-III, Section: D8	3 of 25	2.3	...The design capacity of the conveyors shall be 25% more than the rated capacity. However, design capacities of crushers and screens shall be 50% more than the rated capacity.	A) We understand that transformer sizing calculation and belt selection has to be done based on rated capacity whereas selection of motor only shall be done based on design capacity. Please confirm.	Motor and transformer shall be sized based on design capacity

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
47	Volume-III, Section: D8	4 of 25 & 21 of 25	3.1.5 & 6.0, point no e) of table (a) & table (b)	Bulk density of coal : a) For volume calculation - 800 kg/cum. b) Density of crushed and compacted coal in stockyard - 1000 kg/cum. c) For structural calculation - 1600 kg/cum & Bulk density of coal : a) For capacity of equipment - 800 kg/cum. b) Drives, belt tensions & supporting structures - 1200 kg/cum.	In view of disputes between various NIT clauses, we assume that bulk density of coal to be considered as 800kg/cum for volume calculation, belt speed calculation, power & tension calculation and 1200 kg/cum for structural calculation & belt selection. Please confirm.	Bulk density of coal : a) For volume calculation - 800 kg/cum. b) Density of crushed and compacted coal in stockyard - 1000 kg/cum. c) For structural calculation - 1600 kg/cum
49	-	-	-	-	We assume that selection of fluid coupling shall be done based on motor rating without any service factor on it. Please confirm.	Acceptable.
51	Volume-III, Section: D8	5 of 25	3.1.20	...Thickness of rubber lagging shall be 16mm herringbone type for drive...	Alternatively rubber lagging of diamond groove type may please be accepted for drive pulleys since it provides the flexibility of rotating the pulley in any direction.	Acceptable.
52	Volume-III, Section: D8	6 of 25	3.1.30	The gravity take-up shall be provided with a minimum travel of 2.5% of conveyor length plus 600mm.	For Nylon-Nylon belt, take-up travel of 2.5% of conv length + 600 mm is ok. However, for EP belt or for Steel cord belt (if required) take up travel should be 1.5% and 0.25% respectively of conveyor length as per belt manufacturer's recommendation. Please confirm.	For EP belt minimum 2% of conveyor length + 600mm to be considered.
54	Volume-III, Section: D8	7 of 25	3.1.38	Metal detectors...Indicating marker shall be provided with metal detector.	We understand that indicating marker of metal detector shall be Sand bag marker. Please confirm.	Confirmed. Refer Amendment.
55	Volume-III, Section: D8	7 of 25	3.1.40	The wagon tipplers shall be of rotaside type..	Rotaside wagon tippler is not fully compliant with RDSO revised G33 spec. Crescent Tippler are in-line with the requirement of revised RDSO spec. Hence L&T will quote for crescent tippler. Please confirm.	Acceptable.
56	Volume-III, Section: D8	8 of 25	3.1.42	The width of the WT hopper outlet shall be minimum 2000mm...The width of the apron feeder shall be min. 2200mm. The width of dribble feeder below apron feeder shall be min. 2400mm.	Width of wagon tippler hopper shall be maintained as 1800mm. Accordingly, width of apron feeder and dribble feeder shall be maintained as 2000mm and 2200mm respectively. The same may please be accepted.	Acceptable.
59	Volume-III, Section: D8	9 of 25	3.1.58	Adequate number of EOT cranes...shall be provided.	We understand that scope of supply of cranes in this package is limited to the following numbers only as specified in different NIT clauses and Flow diagrams :- 1) 25/5 T EOT Crane - 4 nos. (1 in each WT), 2) 20 T EOT Crane - 4 Nos. (in Primary & Secondary crusher houses) 3) 5 T EOT Crane - 1 No (in Bull dozer Maintenance shed) Please confirm.	Only major area's where EOT crane required are indicated and for other areas shall be during detailed engineering stage. EOT cranes and hoists shall be provided for completeness of the system as specified in Vol-IIIB D10

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
60	Volume-III, Section: D8 & Volume-III, Section: D8, Datasheet A	9 of 25 & '31 of 37	3.1.56 & 'SI no 2 of Coal Sampling Unit	...The coal sampling system shall be as per BS-1017/ ISO-1988 & 'method of collection of gross coal sample - as per ASTM D2234	In view of disputes between various NIT clauses, we assume that coal sampling units in Primary Crusher houses, in JNT-1 & in JNT-21 have to be designed as per ASTM D2234. Please confirm.	Acceptable.
63	Volume-III, Section: D8	9 of 25	3.1.58	...Manual hoists shall be provided for handling items of 500 kg to 1000 kg and up to a lift of 10m. Electric hoist shall be provided for handling components of 1000 kg and above and/or a lift over 10m.	B) Manual hoists shall be provided to handle counter-weights of conveyor take-up and take-up pulley irrespective of the capacity and lift. Please confirm.	Acceptable.
64	Volume-III, Section: D8	13 of 25	3.1.67	Wherever the conveyor crosses the road, a minimum clearance...At the rail crossings, this clearance shall be as per the Indian railway requirement. Necessary approval from the respective authorities shall be obtained by the Contractor.	A) As per the NIT Plot Plan, Drg no. TCE.5750A-100-GA-1001, Rev P3, the proposed scheme does not call for any overhead crossing of conveyor gallery with railway track, therefore this clause is not applicable. Please confirm.	Proposed & existing railway lines are shown in the plot plan. Bidder to decide accordingly
65	Volume-III, Section: D8	13 of 25	3.1.67	Wherever the conveyor crosses the road, a minimum clearance...At the rail crossings, this clearance shall be as per the Indian railway requirement. Necessary approval from the respective authorities shall be obtained by the Contractor.	B) In case there is any overhead crossing of rail (existing/proposed/future) with the proposed conveyor system, client to furnish its location now itself for taking care of in conveyor profile.	Proposed & existing railway lines are shown in the plot plan. Bidder to decide accordingly
66	Volume-III, Section: D8	13 of 25	3.1.67	Wherever the conveyor crosses the road, a minimum clearance...At the rail crossings, this clearance shall be as per the Indian railway requirement. Necessary approval from the respective authorities shall be obtained by the Contractor.	c) Taking approval from respective rail authorities for overhead crossing of conveyor gallery on rail track, if any, shall be in client's scope. However, scheme drawing shall be furnished by bidder to client for assistance to this approval. Please confirm.	Acceptable.
67	Volume-III, Section: D8	13 of 25	3.1.69	For day to day maintenance/ breakdown maintenance of 6 nos bull dozers, maintenance shed...shall be provided near stacker reclaimer area.	Client to furnish size and height requirement of Bull dozer shed.	Bidder to suggest the size & height and shall be finalized during detailed engineering.
68	Volume-III, Section: D8	15 of 25	3.2	All buildings in CHP area such as Electrical switch gear/control rooms, office cum stores, pump houses etc shall be provided with required no of rooms with toilets at second floor of coal handling system switchgear room for maintenance engineers and technical staff and drinking water facilities.	A) From various NIT clauses, we understand that apart from the Junction Towers, Crusher Houses, CHP Control Room, Switchgear rooms cum MCC rooms, ERH and Pump Houses, only two auxiliary buildings (i.e. Bull dozer shed and Office cum Store room) are in the scope of CHP package. Please confirm.	Please note that complete specification for power plant is EPC & all buildings as per system requirement are in Bidder scope
69	Volume-III, Section: D8	15 of 25	3.2	All buildings in CHP area such as Electrical switch gear/control rooms, office cum stores, pump houses etc shall be provided with required no of rooms with toilets at second floor of coal handling system switchgear room for maintenance engineers and technical staff and drinking water facilities.	B) Please furnish the size & height requirement of Office cum Store room and number of floors required for the same.	Bidder to suggest the size & height and shall be finalized during detailed engineering.
70	Volume-III, Section: D8	15 of 25	3.2	All buildings in CHP area such as Electrical switch gear/control rooms, office cum stores, pump houses etc shall be provided with required no of rooms with toilets at second floor of coal handling system switchgear room for maintenance engineers and technical staff and drinking water facilities.	C) We understand that toilet has to be provided only in CHP control room cum switchgear room (facility no. 10 as per NIT Plot Plan drg no. TCE.5750A-100-GA-1001, Rev P4). Please confirm.	For CHP control room toilets shall be provided as per enquiry specification and for other areas shall be provided as per Volume VI

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
72	Volume-III, Section: D8	20 of 25	cl. 6.0, property tables of coal	hard groove grindability index - NIL	In absence of any data in NIT, we assume that HGI of imported as well as Indian coal shall be 48 or more. Please confirm.	Please refer attached coal and ash analysis of Indian and Imported coal.
73	Volume-III, Section: D8, Datasheet A	1 of 37	SI no 1.0	Capacity of the conveying system - 2000 TPH from wagon unloading to stockpile & 1000 TPH from stockpiles to bunkers	The system description (cl. No. 2.0, sheet 1 to 3 of 25, Vol-III, Section:D8) as well as the Flow Diagram (drg no. TCE.5750A-563-FD-1013, Rev P1) calls for a rated capacity of 2000 TPH for all conveyor streams from wagon unloading to stockpile as well as from stockpile to bunker. Please confirm. Please confirm capacity & width of ERH conveyers.	Capacity of the conveying system - 2000 TPH from wagon unloading to stockpile & 1000 TPH from stockpiles to bunkers. Capacity of Reclaim conveyor shall be 1000TPH rated and Belt width 1400mm
78	Volume-III, Section: D8, Datasheet A	5 of 37	SI no 1.0 (Apron feeder)	Pans - Should be fabricated from LA-55 or equivalent material	Material of construction of different parts of apron feeder shall be as per approved manufacturer's standard. Please confirm.	Acceptable.
79	Volume-III, Section: D8, Datasheet A	7 of 37	SI no 9.2 (Stacker-Reclaimer)	Bottom of bucket wheel - 10m above rail level (minimum)	Meaning of the stipulated NIT clause is not clear to us. Client to explain. Normally, during stacking & reclaiming, height of boom conveyor varies depending on the height of stockpile.	10m is the maximum height of bucket to reclaim coal
82	Volume-III, Section: D8, Datasheet A	11 of 37	SI no 6.0 (Screens)	Efficiency of screening - 95%	Screen efficiency will have little role since Crusher capacity is matched with the input capacity of coal flow to each crushing & screening stream. Moreover screen manufacturers will not be able to offer such high efficiency of screen even in dry season. However Bidder offers guarantee of 95% of sized material for crushing and screening units in tandem based on presence of fines in the incoming coal feed after checking with crusher & screen manufacturer once the sieve analysis is received from client. Client is requested to review and revert back.	Sieve analysis of coal will be given by owner during bid discussions. Efficiency of screening shall be 95%
83	Volume-III, Section: D8, Datasheet A	11 of 37	SI no 4.0 (Travelling trippers)	Type of discharge chute - Two way/ Three way	Refer NIT Flow Diagram, drg No TCE.5750A-FD-1013, rev P1 - discharge chute from each travelling tripper has been clearly shown as two way chute. Please confirm.	Two way
84	Volume-III, Section: D8, Datasheet A	11 of 37	SI no 5.0 (Travelling trippers)	Capacity (Rated) of travelling tripper - 1000 TPH	Refer our query against conveyer capacities above - please confirm that rated capacity of the travelling trippers are 2000 TPH.	Capacity (Rated) of travelling tripper - 1000 TPH
85	Volume-III, Section: D8, Datasheet A	17 of 37	SI no 6.0 (Travelling trippers)	Belt width - 1400mm (min)	Referring to our query against conveyer capacities above - for handling a rated capacity of 2000 TPH with 3.55 m/s speed, minimum belt width of tripper conveyors should be 1600mm. Please confirm.	Belt width shall be 1400mm
86	Volume-III, Section: D8, Datasheet A	12 of 37	SI no 3.0 (Fixed trippers)	Type - Motor driven	It is not clear how fixed trippers are motor driven. Please clarify.	Flap gate / Flow divider provided below discharge pulley shall be motor driven

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88	Volume-III, Section: D8, Datasheet A	14 of 37	Sl no 13.0	Tramp iron chute - to be provided up to ground level.	We are assuming 400 mm dia 8mm thick pipe as tramp iron chute beyond the magnetic zone up to the floor. Please confirm.	Acceptable and same will be reviewed during detailed engineering stage
89	Volume-III, Section: D8, Datasheet A	29 of 37	Sl no 7.2	The tippler table shall be designed to allow passage of standard main line Indian Railway diesel or electric locomotive over the table.	Passage of electric locomotive over wagon tippler table is not possible since electrification can not be done over wagon tippler area. Kindly furnish your acceptance.	Acceptable
90	Volume-III, Section: D8, Datasheet A	32 of 37	Sl no 6.2 (Crusher of coal sampling unit)	Particle size handled : (-) 50 mm	Refer the Flow Diagram, drg no. TCE.5749A-FD-1013, rev P1 - there are two number of sampling unit inside primary crusher houses for sampling of pre-crushing coal. Hence, sampling crushers for those cases should be adequate for handling (-) 400 mm particle size. Please confirm.	Acceptable
92	Volume-III, Section: D8	7 of 25	3.1.34	...The cross section of the chute shall be large enough to avoid any build up of coal with high moisture	As per standard practice, minimum chute cross section should be 5 times actual material cross section area at rated capacity. Please confirm.	Acceptable
93	Volume-III, Section: D8	9 of 25 & '19 of 25	3.1.60 & '5.5	In order to dispose off the dust on the walkway of conveyor galleries and different JT's dust hopper with grill and discharge chutes up to ground level shall be provided...Dust hoppers at 20 meter intervals along the length of conveyor galleries and at least two hoppers in each floor of the JT's shall also be provided. & All conveyor galleries, shall be provided with dust sweeping hoppers covered with removable chequered plates. There shall be one dust hopper for each walkway of gallery and the same shall be provided at each trestle location. Similarly dust hoppers shall be provided for each floor or junction towers / crusher houses. These dust hoppers shall be connected to a dust chute to enable the dust swept to be led to the ground level.	Client's requirement of dust chute in conveyor gallery & junction houses are not clear. We understand that :- A) Dust hopper covered with removable chequered plate shall be provided at each walkway of all conveyor galleries at an interval of 20m (approx.) & near trestle location. A 400 mm dia pipe of 5 mm shall be provided from each dust hopper up to ground level for disposition of material. B) each Junction Tower shall be provided with one numbers of dust hoppers per floor which will be connected to a 400mm dia 5 mm thick pipe to carry the swept material to the ground level. Client to confirm the above points. C) Client to furnish capacity of each dust hopper. D) We understand that no dust hopper and dust chute is required in boiler bunker floor. Please confirm.	Acceptable. Bidder to decide the capacity of the dust hopper and the same will be reviewed during bid stage. For bunker conveyors dust hoppers and chutes shall be provided as per enquiry specification
96	Flow Diagram	Drg no. TCE.5750 A-FD-1013, rev P1	-	As per the flow diagram, one conveyor from each primary crusher (i.e., BCN-3C & BCN-23C) shall be provided for carrying uncrushed reject to the reject bin.	A) We understand that the reject bin shall be installed adjacent to the road and rejects shall be discharged straight onto the ground, which will be removed from the plant time to time by means of payloaders/ dumpers. Please confirm. B) In case client wants to maintain a minimum capacity of the reject bin, the same may please be specified.	Reject conveyor and bin shall be provided as per enquiry specification. Bidder to suggest the capacity and the same will be reviewed during detailed engineering

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
101	Volume-VII, Plot plan	5 of 34		Drg. No: TCE.5750A-100-GA-1001-P4	B) Client to furnish top elevation of pipe track which is crossing conveyor BCN 4C/D and BCN 24 C/D in order to design conveyor profiles accordingly. In case any other existing/ proposed facilities (i.e., cable/pipe rack, buildings etc) are coming in the route of proposed conveyor system, location, size & height of the same may please be intimated. Please confirm	Ash conveying Pipe rack is proposed and the same is in bidder scope of work. Accordingly conveyor profiles can be designed
102	Volume-VII, Plot plan	17 of 34		Drg. No: TCE.5750A-563-FD-1013-P1	We bring to your notice that we have co-related with the coal flow scheme in secondary crusher house and location secondary crusher house in plot plan. Both inlet conveyors and outgoing conveyors are in the same direction. Since incoming coal has to be bisected thru flow dividers before proceeding towards VSFs and crushers, the placement of VSFs and Crushers are arranged perpendicular to incoming/outgoing conveyors. In such a case, all the discharge of end of VSFs and crushers thru flap gate are not possible to feed the outgoing conveyors without introduction of additional belt feeders (4 nos.) and flap gates (4 nos.). Sketch showing modified scheme with typ. layout of sec. crushers (SCH-1) have been attached Annexure-1 (Drg. no. T12xxx-M-BM-CS-SK-0001) for your review and acceptance.	Please refer revised flow diagram TCE.5750A-563-FD-1013-P2
103	Flow Diagram	Drg no. TCE.5750 A-FD-1013, rev P1	-	-	As per the Flow diagram, each of the conveyors BCN13A, 13B, 211A & 211B are taking feed from two numbers of Reclaim hopper. We consider that rated capacity of each of these conveyors shall be 600 TPH with each Vibro feeder having 300 TPH rated capacity. Please confirm.	Rated capacity of the reclaim conveyor shall be 1000 TPH and accordingly vibro feeder shall be designed
104	Volume-III, Section: D8	5 of 25	cl. 3.1.22	The pulley shall be statically and dynamically balanced...	Since all the pulleys are rotating in lower RPM, dynamic balancing of the pulleys are normally not being done as per regular industrial practice. Please confirm your acceptance.	Acceptable.
106	Volume-III, Section: D8	6 of 25	3.1.25	Snub pulley of all conveyors at head end shall be covered in the main discharge chute.	confirmed. However chute plate angle at snub pulley covering shall be maintained min. 60 deg. to horizontal as it has to guide only small amount of material being collected during belt cleaning. Please confirm	Acceptable.
108	Volume-III, Section: D8, Datasheet A	29 of 37	Sl no 6.8	Retarders on outhaul track - Required. To be included as per RDSO norms.	As per latest RDSO norm retarder is not required. Rail slope has to be made 1 in 1200 for 650 m length at out haul. Otherwise it will be levelled.	Acceptable

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
111	Volume-III / Section:D8	Sheet 11 of 25	Coal handling system Cl.No.3.1.65	Dust suppression system shall be provided for coal stock pile, reclaim Hopper.	We are presuming 2Nos. of sprinklers will operate at a time for each stock pile and Pump capacity is designed for 4 Nos. of sprinklers for the two stock piles (out of four stock piles any two stock piles will be wetted at a time). We presuming pumps (1W+1S) for the both Stockpile DS system and Emergency Reclaim hopper DS system. Please check and confirm.	Acceptable
112	Volume-III / Section:D8	Sheet 23 of 37	Data sheet of Coal handling system Tunnel ventilation system SI.No.5	Material of Duct RCC for tunnel portion 18 gauge GI sheet for others	RCC duct construction will be provided for duct entering to underground portion from ground only & duct running inside the underground portion will be GI construction instead of RCC duct. GI duct thick ness will be as per IS 655/277. Please Check and confirm.	Acceptable. However Thickness shall be as per enquiry specification
113	-	-	-	Machine mounted DS system	NIT is salient regarding machine mounted DS system. Please clarify whether any machine mounted DS system has to provide for the S/R machines.	Bidder can propose the system. Will be reviewed and confirmed during detailed engineering stage.
115	Volume-III / Section:D8	Sheet 10 of 25 & Sheet 20 of 37	General requirements of DE system Cl.No. 3.1.64, point No.f Data sheet of Coal Handling system SI.No.18.0	Thickness of suction Hood, dust collecting hopper and duct shall be minimum 5mm. Thickness of ducting minimum 3.15mm and 5mm at the bends.	The mentioned clauses are contradicting each other. We are presuming DE duct thickness at the straight portion shall be 3.15mm and 5 mm at the bends. Please confirm.	Acceptable.
116	Volume-III / Section:D8	Sheet 18 of 37 & Drg. No. TCE.5750 A-563-FD-1013-P1	Data sheet of Coal Handling system SI.No.3.2 Coal handling system Flow Diagram	No. of Bunker ventilation system required one no. BVS for each set of 3 bunkers. As per the flow diagram 4 silos are shown in the each bunker unit.	We are presuming bunker ventilation system will be provided for each of the units. Please check and confirm. Please indicate volumetric capacity of each bunker in terms of tonnage & opening slot size on bunkers for calculating capacity of DE system.	Bunker ventilation system shall be provided for each set of 3 bunkers and depends on the mill configuration. Same will be reviewed during bid clarification.Total bunker capacity shall be 16 hours as per enquiry specification. Bidder to decide the opening slot size on bunker and same will be reviewed during bid discussions
117	-	-	-	Selection of service water pump.	We are presuming 6 No. of service water tap points will work at a time for selecting of service water pump capacity.	Acceptable
118	-	-	-	Spray bar assemblies for Dry fog dust suppression system	Individual spray nozzles installed on belt conveyor has been considered. The individual nozzle installation design offers better accessibility to any one nozzle at any point of time for inspection & maintenance and preferred in DFDS system. Please confirm acceptance.	Acceptable

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119	Volume-III / Section:D8	Sheet 11 of 25	Cl.No. 3.1.65, Dust suppression system and service water system , point No.b	DFDS system The quantity of water to be sprayed at conveyor transfer points shall be 1.25 lts of water per hour per tonne of coal transfer.	Water addition to the material will be around 0.1 to 0.2% for DFDS system. The water quantity mentioned above is much higher side. Please check & confirm.	Acceptable
120	-	-	-	DE/DFDS at ILMS location.	We are not considering DE/DFDS application points at ILMS location. Please confirm.	Acceptable. DE system shall be provided in such location
121	-	-	-	Service water system	We are presuming simultaneous operation of 6 service water tap points for the whole plant, each consuming 2 m3/hr, for calculation of pump capacity. Please check & confirm.	Acceptable
122	Volume-III / Section:D8	Sheet 09 of 25	Cl.No. 3.1.52,	Tunnel ventilation system provided shall be suitable for a minimum of 12 air changes per hour.	It is not clear regarding no. of air changes to be considered for exhaust ventilation system for underground portions/ tunnels areas. We are presuming 6 air changes/hr for exhaust and 12 air changes/hr for supply ventilation system. Please check and confirm.	Bidder Shall consider 8 air changes/hr for exhaust ventilation. However 12 air changes/hr for supply ventilation system is acceptable.
123	Volume-III / Section:D12	Sheet 3 of 28	Cl.No. 3.1	Water PAC	We are providing Split Ac unit for CHP control room, wagon tippler control room, RIO panel rooms for load below 5.5TR. 5.5 TR & above will be provided with water cooled PAC units. Please check & confirm. Please clarify whether any stand-by are to be provided for split AC & PAC units.	Noted and accepted. No standby are required for split AC & PAC units.
124	Volume-III / Section:D8	Sheet 21 of 37	Data sheet of Coal Handling system, Air Compressor Sl.No.5.0	Air drier	NIT is salient regarding stand-by air dryer. Please clarify whether any standby air drier has to be provided for standby compressor.	Required number of air compressor and dryer with adequate number of working & standby shall be provided to meet the system requirement
125	-	-	-	Compressor stand by unit	Compressor capacity will be based on single stream operation of conveyors. 100% standby will be provided for compressor during single stream operation. During double stream operation, both the compressor will run with no standby. Also, the compressor will be air cooled oil injected screw compressor. Please check & clarify.	compressor and dryer shall be designed considering all streams operating simultaneously. Oil free screw type compressor as per enquiry specification shall be provided
126	Volume-III / Section:D8	Sheet 04 of 25	Cl.No. 3.1.10,	The motor rating for all the equipment shall have a minimum margin of 25% over the BKW.	Specification is general about for all the equipment's. We are presuming motor rating for all the pumps and fans shall have a minimum margin of 10% over the BKW. Please check and confirm.	For all equipment motor rating shall be 25% over BKW as per enquiry specification.

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
127	-	-	-	pre wetting of wagons	For Pre wetting & plain water DS system of wagons we are presuming following design criteria. A) 2 no. of wagons will be wetted at a time for each wagon tippler area. B) Total 20 No. of spray nozzles for each wagon C) Spray nozzle capacity shall be 3lpm Pump capacity shall be designed considering two nos. of pre-wetting of wagons and one no. of DS system for Wagon tippler. We are considering 2W+1S pumps for pre-wetting of wagon tipplers and DS system for wagon tippler. During both the wagon tipplers are working both the pumps will work and there will be 1 stand-by pump and when any one wagon tipper is under operation there will be two stand-by pumps. Please confirm.	Acceptable. However Pump capacity shall be designed considering Four nos. of pre-wetting of wagons (Two nos. of pre wetting wagons per each working wagon tippler and two nos. of DS system for Wagon tippler (2 Working Wagon tippler) shall be considered
128	-	-	-	Patent items in compressor & Air condition units	For the patent items like compressors, make of compressor shall be as per approved vendor list. Motor for the same shall be as per the compressor manufacturer recommendation. (Example Ingersoll Rand compressors & Kirloskar are being supplied with Ingersoll Rand & Kirloskar make motor & other inside components).	Motors shall be as per approved vendor list only.
132	-	-	-	Service air for Transfer house	Please clarify whether any Service air is required for cleaning of equipment in the Junction towers & crusher house. If so, Please furnish the air quantity at each tap point and no. of working points for entire CHP plant.	For cleaning purpose service air is required in Coal handling plant. Bidder to suggest the quantities and same will be reviewed during detail engineering.
133	Volume-III / Section:D7	Sheet 14 of 22	Cl.No. 1.0 to 5.0, Specific requirement of valves	Pipe SERVICE WATER /SERVICE AIR.- up to 150 NB NB 200 to NB 350 400NB & above	We are presuming below pipe specification for pipes for Service water, DFDS, DS, Service air for CHP system. a) 50 NB & Below – G.I. Heavy class, as per IS: 1239, Part-I, 2004 (screwed ends) b) 65 NB up to 150NB shall be of MS Black, heavy class as per IS:1239(Part I), 2004 (plain ends) c) Above 150 NB- MS, Black, plain ends, as per IS:3589, 1991 (min. thickness as 6.0 mm) FOR POTABLE WATER a) 150 NB & Below – G.I. Heavy class, as per IS: 1239, Part-I, 2004 (screwed ends) Please confirm our acceptance.	Piping, fittings and valves material specifications & design requirements are given in enquiry specification Vol-III part -B. Bidder shall follow the same.
ASH HANDLING SYSTEM						
135	Volume-III Part-B Section-D9	3 of 14	2.5	Capacity of the recovery water pumps shall be decided assuming that 70% of total ash water is being recovered from disposal area.	Capacity of the recovery water pumps shall be 70% of total ash water from unit#7 and Unit#8 only for recovery from ash disposal area.	Acceptable

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
139	Volume-III Part-B Section-D9 Flow Diagram (TCE.5750A-570-FD-1014) Volume-VI Section- D4.5	3 of 14	2.4 & 3.2	Bottom ash and fly ash disposal pipes shall be terminated by bidder near existing ash pond.... Ash slurry piping around the ash dyke shall be in garlanded....	i) Please clarify the scope of Ash slurry pipe garlanding in the ash dyke. ii) Please clarify that the 3 kms ash slurry disposal pipe length is including garlanding? iii) As per Cl. No. 17.9, of Volume-VI of section D 4.5 the static raised of ash dyke shall be 8m. we have considered the 8m static height for sizing of slurry disposal pump. please confirm.	i) Ash slurry pipe garlanding in the ash dyke is included in bidder scope of work. Construction of Ash dyke is excluded from Bidder's scope. 15m Static lift considering future bund rise. Each garlanding pipe length shall be minimum 25m. Minimum 8 outlets along periphery of the ash pond shall be provided. Also refer ammendment ii) 3KM slurry pipe length excluding garlanding. iii) Acceptable.
141	Volume-III Part-B Section-D9	6 of 14	4.15	The type of high speed coupling between motor and gear box shall be as follows : (c) For HT motors : Scoop type fluid coupling	Following coupling shall be provided as per engineering practice. i) Manual Scoop type fluid coupling shall be provided for ash slurry disposal pump ii) all the water pumps shall have Flexible Pin Bush type coupling. iii) Compressor shall be provided as per vendor proven design. Please confirm.	Scoop type coupling shall be actuator operated.
142	Volume-III Part-B Section-D9	6 of 14	5.1.1	All the equipment such as HP pumps, LP pumps, seal water pumps, slurry pumps, conveying air compressors, instrument air compressors, slurry sump, ash water tank, switchgear room and control room shall be located in a single building.	"All the equipment such as HP pumps, LP pumps, seal water pumps, slurry pumps, conveying air compressors, instrument air compressors, slurry sump, ash water tank, switchgear room and control room shall be located in a single building." Please clarify the above statement as it is contradictory with Plot Plan. In Plot Plan above equipment are placed in separate buildings. Please confirm the requirement.	Bidder to suggest the feasible location in the bid. Same will be reviewed and confirmed during bid discussions
143	Volume-III Part-B Section-D9	7 of 14	5.1.10	Separate building shall be provided for ash water recovery system near ash disposal area.	Please confirm the location of recovery pump house and second stage pressure conveying pump house in Plot Plan for Unit 7 and 8.	Amendment - Vol-VII, Refer the revised plot plan (Rev-P5).
145	Volume-III Part-B Section-D9, Datasheet-A4	1 of 7	4.6.2 (Datasheet-A4)	Fly ash inlet valves / outlet valves...	Fly ash inlet and outlet valves for transmitter vessels shall be as per vendor proven design. Please confirm.	Acceptable
146	Volume-III Part-B Section-D9, Datasheet-a4	5 of 7 1 of 7	11.0 2.0	The capacity of transmitter vessels shall be decided based on one of the following operating conditions whichever is more conservative: NUMBER OF HRS OF OPERATION:NORMAL - CONTINUOUS....	i) Transmitter vessel capacity is generally decided based no. of cycle per hour, one cycle conveying time etc. Hence, transmitter vessel capacity shall be decided based on vendor proven design. Please confirm. ii) As per cluase 2.0 datasheet -A4, fly ash shall be operated continuously and the transmitter vessels shown below each intermediate silo are only (2) Nos. but as per engineering practice, the operation of transmitter vessels are cyclic but not continuous hence total four(4) nos. transmitter vessels shall be considered below each intermediate silo. Please confirm	Acceptable

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
148	Volume-III Part-B Section-D9, Datasheet-A6,A7	Datsheet-A6 & A7	Datsheet-A6 & A7	Materials of Construction ...	MOC of instrument air compressor and conveying air compressor shall be provided as per vendor proven design.	Acceptable
150	Volume-III Part-B Section-D9, Datasheet-A13 Volume -VI Section D 4.5	Datsheet-A13 27 of 57	1.0 17.2	Ash water tank, ash slurry sump: RCC Over ground Ash water tank shall be formed partly underground and partly over ground....	Ash water sump and ash slurry sump shall be semi over ground type as per Layout constraint. Please confirm.	Acceptable
152	Volume-III Part-B Section-D9, Datasheet-A4 & A14	Datasheet-A4, 4 of 7 Datasheet-A14, 1 of 5	7.1 (Datasheet-A4) 2.1 (Datasheet-A14)	Material of pipe for: - FA pipelines: MS ERW as per IS – 1239 of 5.4 mm up to 125 NB AND IS – 3589 of minimum 7.0 mm thick for 150 NB and above with 20 mm Cast Basalt lining	material for pipe for conveying fly ash from FA hopper to fly ash silo shall be MS ERW confirming to IS 3589 with minimum thickness of 9.5 mm is proven practice. Please confirm.	Acceptable
155	Volume-VI Section-D4.5,	28 of 57	17.9	Pipe line from Ash slurry pump house to the final disposal area shall be run on pipe racks in the plant area and on RCC pedestals over the bund up to disposal point.	Ash slurry disposal pipe running from ash slurry disposal pump house to ash pond shall be routed on RCC pedestals instead of pipe rack as per industrial practice. Please confirm.	Slurry pipe shall run on pipe rack. The bottom tier of pipe rack for ash disposal pipes shall have a clear height of 8 m.
156	Volume-VII	-	-	-	Ash dyke Drawing has not been indicated with specification. Please furnish the Cross section of the existing ash dyke area.	Required details shall be collected from Suratgarh site
157	Volume-II Section-C1, broad scope of supply, terminal point, exclusion Volume VI Section-D 4.2	25 of 44 33 of 44 2 of 9	1.3.6 (I) 1.6.1 (i) 1.21	interconnection among the silos shall be provided such a way that FA from each of the units shall be conveyed to any of the two FA silos Provided for that unit.....	As per Cl. No. 1.6.1 (i) of Volume II, Section C1 and Cl. No. 1.21 of Volume VI, Section D 4.2, ash dyke/ash pond is excluded from bidders scope of work. Hence we have not considered settling pond, stilling pond in our scope of work. please confirm.	Settling pond & Stilling pond shall be considered in the scope
158	Volume-III Part-B Section-D9Datasheet-A6 Datasheet-A7 Datasheet-DB6 Datasheet-DB7	-	-	-	As per Datasheet DB6 and DB7 of volume III, section D9, type of conveying air compressor and instrument air compressor shall be reciprocating type, centrifugal type or screw type while as per filled datasheet A6 and A7 oil free screw type compressor shall be provided. please confirm the compressor type.	Oil free screw type shall be provided
159	Flow diagram (Dwg No. TCE.5750A-570-FD-1015)				As per flow diagram Flow diagram (Dwg No. TCE.5750A-570-FD-1015 only one jet shall be provide to evacuate the fly ash in wet conveying mode below each intermediate storage silo. In our view, one no. jet pump stream is insufficient to handle the fly ash of one unit. Please review specification requirement. Please confirm capacity of Jet Pump.	Jet Pump below intermediate surge hopper provided for emergency disposal of ash. Capacity of Jet pump below silo shall be 150 TPH

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
163	Volume-III Part-B Section-D9			Bottom ash and Fly ash slurry concentration	Bottom ash and Fly ash slurry concentration have been considered as follows: i) Bottom ash slurry concentration at jet pump outlet shall be 28 % (w/w) (max) ii) Fly ash slurry concentration at jet pump outlet shall be 40 % (w/w) (max) iii) Bottom ash and fly ash slurry concentration at ash slurry disposal pump outlet shall be 30 % (w/w) (max). Please confirm.	This will be decided during detail engineering considering the flowability of slurry, Water requirement at Jet pumps etc., after submission of required calculations by you
164	Volume-III Part-B Section-D9			Bottom ash hopper angle	Bottom ash hopper angle with respect to horizontal plane shall be 45 degree in all sides of hopper wall. Please confirm.	Shall be 60 degree
165	Volume-III Part-B Section-D9			fluid couplings	The first stage of ash slurry disposal pumps shall have scoop controlled fluid couplings to vary the duty point within +10 % to - 45 % of design duty point. Please confirm.	Acceptable
166	Volume-III Part-B Section-D9			The impeller tip speed	1.The impeller tip speed shall not be more than 1676 meter/min for ash slurry disposal pump. 2. Ash slurry disposal pump speed shall be limited to 1000 rpm. Please confirm.	Acceptable
167	III Part B/D9 III Part B/D9	2 of 14 12 of 14	2.2 10.7 10.8	The fly ash collected in the ESP hoppers, air preheater hoppers and stack hopper shall be evacuated pneumatically 30% of ash generated (25% BA+5%ECO ASH) 95% of ash generated (90% ESP & Chimney ash + 5% APH Ash)	Please note that Ash generation rate for Stack is not mentioned, though it will be evacuated through FA system. Please furnish the same.	95% FA generated includes ESP ash, Chimney ash & stack ash
168	General				The pressure drop calculation friction factor C shall be considered as follows for Hazen William formula: Ash slurry lines: 140 Sludge line : 130 Recovery/Recycle water lines: 110 Bottom ash overflow line: 120 Water lines: 110. Please confirm the above.	The pressure drop calculation friction factor of C=100 shall be considered (Including Ash handling piping) since pipes are of IS 1239/3589.Also refer Amendment
169	General				1. Minimum and Maximum velocities for bottom ash & combined ash slurry lines : 2.3 m/s & 2.8 m/s. 2. Minimum & Maximum velocity in fly ash slurry line: 1.8 m/s & 2.8 m/s. Please confirm the above.	Acceptable
170	Flow diagram(TCE.5750A-570-FD-1015, Rev P2)	-	-	No air lock vessel has been shown in flow diagram	Air lock vessel shall be provided between the intermediate silo and transmitter vessel as per proven engineering practice. Please confirm the requirement of air lock vessel.	Bidder to provide the equipment for completeness of the system as well as satisfactory performance of the system

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
171	Volume-III Part-B Section-D9, Datasheet-a4	1 of 7	1.0	130 TPH/260 TPH- Normal/Emergency	We understand that the Fly ash pressure conveying capacity 130 TPH/260 TPH- Normal/Emergency as indicated in datasheet-A4, s. No. 1.0 are for each unit including all the operating fly ash pressure conveying streams. Please confirm. However, individual stream capacity shall be decided during detail engineering as per vendor proven design.	Acceptable
173	Volume-III Part-B Section-D9,	4 of 14	3.2	Fly ash shall be evacuated in 5 hour....	As per cl. No. 3.2 of sec-D9 of volume IIIB, fly ash shall be evacuated in 5 hour while as per jet pump datasheet-A2, bottom ash jet pump capacity shall be 150 TPH. It means that fly ash will be evacuated in 208 min if we consider jet pump capacity of 150 TPH as per the ash distribution given in tender specification. Please confirm jet pump capacity and evacuation time to be followed for estimation purpose.	Jet Pump capacity for BA is 120 TPH and For FA 150 TPH. BA shall be evacuated in 2 hours in a shift of 8 hours and FA shall be evacuated continuously during emergency
	Volume-III Part-B Section-D9, Datasheet-a2	1 of 2	1.5	150 TPh for FA		
174	Volume-III Part-B Section-D9,	3 of 14	2.5	Ash water recovery system: The water from the stilling ponds shall be let out through the collecting well. Suitable discharge pipes with isolation valves (butterfly type) connected to the collecting wells to lead the effluent outflow to the clarifloculator type clarifier....	Collecting well and stilling pond were not found at site. Also, it is not possible to construct a new collecting well/stilling pond in the ash pond which is operational. Hence, please confirm that Bidder will consider the same "Ash water recovery system" as that of 6-units which is under operation at site. If the above is not acceptable, Owner is requested to furnish detailed specification, flow diagram, construction methodology in operational ash pond, etc. for "Ash water recovery system".	Collecting well and stilling pond for the proposed system is included in bidder scope of work. Required details may be obtained from suratgarh site and also refer to the revised plot plan.
175	Volume-III Part-B Section-D9,	3 of 14	2.5	Capacity of the recovery water pumps shall be decided assuming that 70% of total ash water is being recovered from disposal area	Since quantity of disposed ash water in the dyke from existing units is not available with us, capacity of the recovery water pumps shall be decided assuming that 70% of total ash water disposed from proposed units (Unit-7&8) only. Please confirm.	Acceptable
	H2 generation plant					
176	IIIB / D18	1 & 2 of 7	3.1 e), f) & 3.2 a), e), f) CI No 3.3 b)	Water Seals, Gas Washers, Reciprocating Compressors, Dryer with refrigerant cooling element, Lye preparation tank with motorised agitator etc.	Some of the equipment / Processes (e.g. Water seal, Gash washer, refrigerant cooling element, Lye preparation tank with motorised agitator etc.) indicated in the specification represent to old industrial practices specific to unipolar technology. Hence, please note that Equipment which are applicable to proven technology OEM shall only be supplied inline with latest industrial practice, Please confirm.	Acceptable
178	IIIB / D18	1&2 of 7	3.2 h), 4.5 & 4.7	Gas filling manifold with 20 connections, No of cylinders to be filled at a time: 10, No of connections at H2 filling manifold: 24	Number of manifolds indicated at various places has discrepancies; We have considered 10 Manifolds per stream (Total 20) so that at a time 10 Cylinder can be filled. Please confirm.	Please refer amendment.

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
179	IIIB / D18	3 of 7	3.5.3 ii)	Flexibility of isolating any cell of electrolyser & recommissioning rest of the stream	As per prevailing practice in HGP, No maintenance is carried out without complete shutdown of the plant; Therefore, it is not possible to maintain one stream while the other is in operation. However, Flexibility to operate either one stream or two streams at a time is considered. Please confirm.	Acceptable
180	IIIB / D18	4 of 7	3.7.1	Facilities housed in the building are... Air Compressors, Site Office, Store..., Roof shall be RCC..., Storage area shall be well ventilated.	We have considered areas related to Hydrogen generation plant (including rectifier & MCC room, Control room, Cylinder storage area, toilets etc) only, Any additional equipment to be housed in this building is not considered, By air compressor, we understand that it is H2 compressor, Further, Cylinder storage area shall be provided with shed surrounded by cemented mesh, the same shall be naturally ventilated. Please confirm	Acceptable
181	IIIB / D18	6 of 7	Technical Particulars, Sr No 7	Diaphragms: Material of construction: High Grade Asbestos	Asbestos is banned for industrial use, Compressor diaphragm shall be of Brass/Alloy steel. Please confirm	Acceptable
MILL REJECT HANDLING SYSTEM						
183	Volume-III Part-B Section-D16	-	-	-	Mill reject belt conveyor will be run underground in trench. Please confirm. Also please give option for pneumatic MRS as an alternative in this clause.	Acceptable. Bidder can quote Pneumatic conveying system as an additional option
185	Volume-III Part-B Section-D16	-	-	-	Please allow us for alternative option of mill reject conveying by dense phase pneumatic conveying of mill reject system as it is proven system.	Acceptable. Bidder can quote Pneumatic conveying system as an additional option
HYDROGEN GENERATION PLANT						
187	IIIB / D18	1 & 2 of 7	3.1 e), f) & 3.2 a), e), f) CI No 3.3 b)	Water Seals, Gas Washers, Reciprocating Compressors, Dryer with refrigerant cooling element, Lye preparation tank with motorised agitator etc.	Some of the equipment / Processes (e.g. Water seal, Gash washer, refrigerant cooling element, Lye preparation tank with motorised agitator etc.) indicated in the specification represent to old industrial practices specific to unipolar technology. Hence, please note that Equipment which are applicable to proven technology OEM shall only be supplied inline with latest industrial practice, Please confirm.	Acceptable
189	IIIB / D18	2 & 5 of 7	3.2 h), 4.5 & 4.7	Gas filling manifold with 20 connections, No of cylinders to be filled at a time: 10, No of connections at H2 filling manifold: 24	Number of connection per manifold indicated at various places are different. We have considered 10 filling connection per Manifolds; two common manifold per stream (Total 20 filling connection) so that at a time 10 Cylinder can be filled. Please confirm understanding.	Please refer amendment.
190	IIIB / D18	3 of 7	3.5.3 ii)	Flexibility of isolating any cell of electrolyser & recommissioning rest of the stream	Please note that as per prevailing practice in HGP, no maintenance is carried out without complete shutdown of the plant; Therefore, it is not possible to maintain one stream while the other is in operation. However, Flexibility to operate either one stream or two streams at a time is considered.	Acceptable

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
191	IIIB / D18	4 of 7	3.7.1	Facilities housed in the building are... Air Compressors, Site Office, Store..., Roof shall be RCC..., Storage area shall be well ventilated.	Please note that Site office & stores are not considered as a part of Hydrogen generation building. Further, we understand that H2 compressor shall be housed in H2 generation building and not air compressor. Gas cylinder storage area shall be provided with Structural shed surrounded by cemented mesh with naturally ventilation instead of RCC building. Please confirm acceptance.	Acceptable
192	IIIB / D18	6 of 7	Technical Particulars, Sr No 7	Diaphragms: Material of construction: High Grade Asbestos	Asbestos is banned for industrial use, Compressor diaphragm shall be of Brass/Alloy steel. Please confirm	Acceptable
	CRANES & HOISTS					
193	Volume-III, Section D10, Part-B	2 of 7	2.1.1	Two Nos Double Girder EOT Cranes of minimum 150/40 T capacity... for erection and maintenance of ...generators...etc.	From prevailing practice in industries, we understand that the cranes shall not be used in tandem for erection of Generator Stator. Please confirm. The generator stator be erected & placed on its foundation by strand jack system.	Acceptable
194	Volume-III, Section D10, Part-B	1 of 3	Datasheet A Sr No 16	Method Of Operation: Closed Cabin and Pendent Push Button	We have considered Closed Cabin and radio remote control only for TG hall EOT crane, For other misc. cranes Pendent Push Button Station/Radio remote shall be provided. Please confirm	Shall be as per enquiry specification. Alternately bidder can offer RRC for TG crane
	Electrical					
198	Volume IIIB, Section D4 PART-B	SHEET 3 OF 23	3.5 Main clarification plant & Water balance diagram TCE.5750A-610-FD-1010	Tender document specified Main Clarifier configuration as 2x60 % where as WBD specifies as 2x50%.	Please confirm the configuration.	Please consider the capacities as per the data sheet of enquiry specification.
199	Volume IIIB, Section D4 PART-B	SHEET 3 OF 23	3.5.4 Filter Water Sump (d) & Water balance diagram TCE.5750A-610-FD-1010	Tender document specified Back wash pump configuration as 3x50 % where as WBD specifies as 2x100%.	Please confirm the configuration.	Please consider the capacities as per the data sheet of enquiry specification.
200	Volume IIIB, Section D4 PART-B	SHEET 8 OF 23	3.5 ACF & Water balance diagram TCE.5750A-610-FD-1010	Tender document specified Main Clarifier configuration as 3X70% where as WBD specifies as 3X60%.	Please confirm the configuration.	Please consider the capacities as per the data sheet of enquiry specification. Revised Water balance diagram will be provided.
	River water Intake system					

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S. No.	Volume / Section	Sheet No.	Clause No.	Bid Specification	Bidders Query	Clarification / Confirmation / Amendment by Owner / Consultant
201	Volume IIIB, Section D20 PART-B	SHEET 1 OF 4	1.1	Head regulator on the IGNP main canal shall be constructed by Irrigation Department Govt. Of Rajasthan but screen is to be provided and fixed by bidder.	Owner to please clarify the following points: i) The branch or link canal forebay upto head regulator shall be the scope of Owner (Irrigation dept.). Bidder scope of link canal construction will start from the point of head regulator. Please confirm. ii) Bidder understand that screen shall be provided prior to head regulator at the start point of the link canal/forebay as per the existing intake system. Please confirm. iii) Please furnish us the specification for screen.	i) Acceptable. ii) Acceptable. However Bidder shall provide additional screens required if any at inlet of Raw water pump house chamber.
202	Volume IIIB, Section D20 PART-B	SHEET 1 OF 4	1.1	The intake system shall cover intake screen, Parshall flume, lined channel, stop log with handling and maintenance arrangement	Manually operated stop log shall be provided as per the existing intake system. Please confirm acceptance.	Accepted.
203	III /SECTION: D20	SHEET 1 OF 4	1.2	1.0 RIVER/CANAL WATER SUPPLY SYSTEM: Please refer attached drawing no. TCE.5750A-562-SK-1016 P0 for details of river water flow scheme.	Please furnish the drawing TCE.5750A-562-SK-1016 P0 as the same has not been provided.	Please refer the attached drawing for River water system flow diagram
204	III /SECTION: D20	SHEET 1 OF 4	1.2	All required clearance/ approval shall be obtained by Contractor. Water required during construction period shall be arranged by the Contractor. Bidder to visit the site to understand	For the river water intake system, all types of statutory clearance/ approval from governing authorities including withdrawal of water from the main canal for construction purpose shall be the scope of Owner. Please confirm acceptance.	Bidder to note that all types of statutory clearances / approval from governing authorities shall be in Bidder's Scope. Construction water for distilling chamber and related civil works shall be taken from existing pump house. Bidder to note that pumping arrangement from existing reservoir to intake system is in the scope of Bidder.

NOTE : with respect to other pre bid queries raised by bidders not exclusively indicated in the clarification/amendment table, Bid specification shall prevail

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
1.	Volume III, Part B	Section D20	1.1	1 of 4	The source of raw water for the proposed station would be from Indira Gandhi NaharPariyojna Canal (IGNP). Main Canal which is situated 4 km away from the proposed site.	There is a discrepancy with respect to the distance of the plant from Indira Gandhi Nahar Pariyojna (IGNP) Canal. Please clarify whether it is 4 kms or 6 kms.	Same shall be 6km.
2.	Volume III, Part B	Section D4	2.1		The source of raw water for the proposed station would be would be from Indira Gandhi NaharPariyojna (IGNP) Canal. Main Canal which is situated 6 km away from the proposed site.		
3.	Volume III, Part B	Section D4	3.5.1	3 of 23	2X60% clarifiers shall be provided to meet the requirement of plant.	There is a discrepancy with respect to capacity of main clarifiers. Customer to please clarify.	Please consider as per datasheet of specification. WBD will be amended.
	Volume VII		Scheme of Water System and Material Balance System		2X50% main clarifiers are indicated in the drawing.		
4.	Volume III, Part B	Section D 4.2	F1)	2 of 5	No of clariflocculators required – 2X60%		
5.	Volume III, Part B	Section D4	1.0 (ix)	1 of 23	Bulk ammonia, hydrazine and phosphate storage and transfer system is covered under water system facilities.	Please note that there is no Phosphate and hydrazine dosing system requirement for this project being super critical. Kindly Confirm.	Phosphate and hydrazine dosing system is deleted from scope of supply. Please refer the Volume-IIIA section-C1 sheet 28 of 34 for chemical dosing system in Turbine cycle.
6.	Volume III, Part B	Section D4	3.5.8	5 of 23	A PLC based control shall be provided for main clarification Plant	A common PLC based control system shall be provided for main and DM clarification Plant.	Please refer the volume – V of tender specification.
7.	Volume III, Part B	Section D4	3.6.4	5 of 23	A PLC based control shall be provided for DM clarification Plant		
8.	Volume III, Part B	Section D4	4.2.2	7 of 23	3X70% capacity pumps shall pump clarified water to filtration plant.	There is a discrepancy with respect to capacity of pumps. Customer to please clarify.	Please consider as per datasheet of specification.Refer revised WBD
9.	Volume VII		Scheme of Water System and Material Balance System		3X50% DM Plant supply pumps are indicated in the drawing.		
10.	Volume III, Part B	Section D4	4.2.3 and 4.2.4	8 of 23	3X70% dual media filters and 3X70% ACF shall be provided	There is a discrepancy with respect to capacity of filtration plant. Customer to please clarify.	Please consider as per datasheet of specification.
11.	Volume VII		Scheme of Water System and Material Balance System		3X60% dual media filters and 3X60% ACF are indicated in the drawing		

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
12.	Volume III, Part B	Section D4	4.3.1, 4.3.6, 4.3.7, 4.3.8 and 4.2.4	8 of 23	3X70% SAC, WBA, SBA, MB shall be provided	There is a discrepancy with respect to capacity of DM plant. Customer to please clarify.	Please consider as per datasheet of specification. Refer revised WBD
13.	Volume VII		Scheme of Water System and Material Balance System		3X60% DM Plant is indicated in the drawing		
14.	Volume III, Part B	Section D4.3	Data Sheet A DM Plant	1 of 2	No of streams (3X70%) (2W+1S)		
15.	Volume III, Part B	Section D4	4.3.11 (b)	8 of 23	Two (2) no acid measuring cum dilution tank, each for cation and MB Unit	Customer to please clarify whether two acid measuring tanks are required for cation and two for anion or total two tanks one each for cation and anion.	Two (2) no. acid measuring tank for 3X70% SAC. Two (2) no. acid measuring tank for 3X70% MB.
16.	Volume III, Part B	Section D4	4.3.12 (b)	9 of 23	Two (2) no alkali measuring cum dilution tank, each for cation and MB Unit	Customer to please clarify whether two alkali measuring tanks are required for cation and two for anion or total two tanks one each for cation and anion.	Two (2) no. acid measuring tank for 3X70% SBA. Two (2) no. acid measuring tank for 3X70% MB.
17.	Volume III, Part B	Section D4	4.3.11 (a)	8 of 23	Two bulk acid tanks each tank sized for one tanker capacity of 50 T	Customer to please clarify the capacity of the tanker	Capacity of tank is 50T.
18.	Volume III, Part B	Section D4	4.3.12 (a)	9 of 23	Two bulk alkali tanks each tank sized for one tanker capacity of 25 T		Capacity of tank is 25T.
19.	Volume III, Part B	Section D4	4.3.17	9 of 23	2X100% NPit pumps shall be provided for each compartment and total 4X100% pumps for neutralization pit	Customer to clarify the number of NPit disposal pumps	Please consider as per write-up and datasheet of tender specification. WBD will be amended.
20.	Volume VII		Scheme of Water System and Material Balance System		2X100% NPit pumps are indicated in the drawing		
	Volume III, Part B	Section D4.3	Data Sheet A NPit	Sheet 1 of 1	NPit Transfer pumps – 4X100%		
21.	Volume III, Part B	Section D4	4.3.17	9 of 23	NPit effluents are pumped to CMB	Customer to clarify the disposal point of NPit waste.	N .pit effluent shall be led to CMB.
	Volume VII		Scheme of Water System and Material Balance System		Npit effluents are pumped to blowdown tank		
22.	Volume II	Section C20	20.5 b)	3 of 4	DM & CPU Regeneration waste to be collected and treated in NPit and shall be discharged to the ash disposal area.		

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
23.	Volume III, Part B	Section D4	4.6	11 of 23 and 12 of 23	The guaranteed effluent quality shall be as follows: ACF, DMF, DM Plant	Customer to please note that guarantee for the water treatment Plant ie DM Plant shall be provided at the outlet of MB only and not outlet of each equipment.	Please refer the Volume-II.
24.	Volume II, Part C3		Performance guarantees	17 of 20	Water DM Plant		
25.	Volume III, Part B	Section D4.3	Data Sheet A dual media filter	Sheet 1 of 2	No of stream – 3X70% and Location Indoor (DM + CPU Regeneration building)	Customer to clarify the capacity of DMF.Please also clarify the location also	Yes, Number of stream 3X70%.Capacity of DM plant shall be in bidder scope.DMF shall be outdoor and regeneration shall be as per specification.
	Volume VII		Scheme of Water System and Material Balance System		As per drawing it is 3X60%		
	Volume III, Part B	Section D4	12.2.1	17 of 23	DM Plant equipment shall be located under a top covered shed. However DMF shall be located outdoors.		
	Volume IIIA	Part A	2.25.1	40 of 80	A common external regeneration facility for MB for both units shall be provided adjacent to DM Plant building		
27.	Volume III, Part B	Section D4.3	Data Sheet A Filter	Sheet 1 of 2	No of stream – 3X70% Location (DM Plant + CPU Regn Building)	Customer to clarify the capacity of ACF. Also there is no CPU Regn building. It is under a shed. Customer to clarify the same also.	Yes, Number of stream for DM plant shall be specification. WBD will be amended.
	Volume VII		Scheme of Water System and Material Balance System		As per drawing it is 3X60%		
28.	Volume II	C 20	Environmental Management	3 of 4	Coal Handling plant waste – the run off water shall be pumped to the effluent treatment plant	The waste generated from coal and ash handling plant shall be collected treated and disposed off by the coal and ash handling system. No waste is brought to ETP.	Acceptable. The waste generated from ash handling plant shall be collected treated and re use in the ash handling system. No waste is brought to ETP .Coal Handling plant coal pile run off shall be led to ETP clarifier in ETP area. capacity of ETP clarifier mentioned in WBD of Vol. VII.
29.	Volume III, Part B	D4	Annexure I	22 of 23	Raw Water Analysis	The raw water analysis is not complete. Oil and grease is indicated as DN. What does DN stands for. Units of BOD and COD are not indicated. No of days and temperature for which BOD value is taken is not indicated. Potassium and sulphide are not indicated. They are assumed as nil. Please provide us with a complete raw water analysis.	1. Bidder to perform analysis for completeness. 2. DN means “Not Detectable”. 3. BOD/COD shall be in ppm.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
37.	III A Part B	D 4.2	1.01 A 3)	1 of 9	Total capacity of the plant shall be as per the dosing scheme specified elsewhere.	Customer to please note that the capacity of the plant has not been specified elsewhere in the specification. The capacity of the plant shall be calculated based on the system requirements. Kindly Confirm.	Capacity electro chlorination plant shall be as dosing rate as per clause 1.02 of section-D4.2, volume IIIB.
38.	III A Part B	D 4.2	1.01 A 4)	1 of 9	In order to simplify spares and service requirements and to assure system integrity, the complete disinfection system, including the hypochlorite dosing equipment, residual analyzer, and control system, shall be manufactured and provided by the same manufacturer as the Hypochlorite generator.	Customer to please note that the manufacturer of hypochlorite generator may not have capability to make hypochlorite dosing equipment, residual analyzer, and control system etc and these may be a bought out item for him. Hence the same should be considered. Kindly Confirm.	Confirmed.
41.	III A Part B	D 4.2	1.02	1 of 9	Raw Water System – 1 ppm continuous dosing (24 hours) Pre-treatment Plant-1 ppm continuous dosing (24 hours)	Raw Water system consists of raw water intake system and pumping station located at IGNP Canal located at 6 kms from the pr oposed plant. Customer has indicated a common electro chlorination system for Raw Water, PT and CW treatment. If chlorine dosing is to be done at raw water intake system at 6 kms from plant a separate electro chlorination system is advisable for the same as 6 km of dosing piping is not advised for hypo dosing. Customer to please clarify.	Please note that chlorination for plant raw water system not for river water system. Please provide suitable gas chlorination system from river water pump house to plant. Dosage rate can be selected such that so has to maintain residual chlorine of 0.5ppm at inlet of plant reservoir.
42.	III A Part B	D 4.2	1.02 Potable Water Plant & Colony	2 of 9	Potable water plant and colony dosing rate – 0.5 ppm continuous (25 hours) each	Customer to please note that potable water system for colony is not in Bidder's scope of supply. Hence chlorination requirement for potable water for colony shall not be provided by us.	Chlorination system for colony potable water is in bidder scope only. Bidder to note that terminal point for colony potable water shall be 6m away from common discharge header.
45.	III A Part B	D 5	Effluent Recycle and reuse system 6.0)	1 of 2	The domestic waste generated from the residential colony and the plant area shall be treated in an adequately designed sewage treatment plant.	Customer to note that sewage treatment plant for the colony is not in Bidder's scope of supply.	Yes. Sewage treatment plant is excluded from bidder scope.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
	III Part B	D5	Effluent Recycle and reuse system 10.0)	2 of 2	A complete sewage treatment plants hall be provided to treat the sewage from the power plant and the colony		
46.	III A Part B	D 5	Effluent Recycle and reuse system Data Sheet A 2.2)	1 of 2	Oily water waste from fuel oil unloading and tank farm area – 100 cum/day.	Customer to please clarify the treatment of oily waste generated from fuel oil area. There is a lot of discrepancy in the specification. If oily waste is treated in fuel oil handling area and clear water is pumped to ETP, it will be pumped to Guard pond and not again to OWS in ETP. Customer to please clarify.	Clear water from fuel oil handling system shall be led to CMB.
	III A Part B	D 14	Fuel Oil System 1.8)	2 of 10	Oil water separators shall be provided.....while the separated water shall be pumped to the ETP		
	Volume VII		Scheme of Water System and Material Balance System		Recovery water from fuel oil area to oil water separator		
48.	III A Part B	D 5	Effluent Recycle and reuse system Data Sheet A 1.3)	1 of 2	Type of treatment plant	Customer to please indicated what type of treatment plant is required for ETP. As such RO, clarifier, OWS etc are indicated in the spec, but treatment philosophy is not indicated anywhere.	Bidder to achieve the ZERO DISCHARGE concept. Type of scheme adopted for ZERO DISCHARGE system shall be in bidder scope.
49.	III A Part B	D 5	Effluent Recycle and reuse system Data Sheet A 3)	2 of 2	Treated Water Guarantee	Customer to please note that the effluent conditioned mentioned in the clauses are different. Customer to please indicate the final effluent quality required which is used for gardening. Also customer to provide norms of CPCB / SPCB to be followed for design of effluent treatment plant.	Please follow zero discharge concept as per CPCB/SPCB.
50.	II	C3	Effluent Treatment Plant	17, 18 of 20	The parameters of water after treatment of effluents at the outlet of CMB shall meet the following requirement		
52.	Volume-III	D-18	3.1a)	1 OF 7	Unipolar / bipolar electrolysis cells.....	Please note that the customer specification talks in detail about the Unipolar system. However option for both Unipolar and bipolar has been mentioned. Please clarify whether unipolar system is applicable or both are applicable.	Unipolar / Bipolar option can be taken by bidder.
58.	Volume-III	D-18	4.7,	5 of 7	No. of connections at H2 filling manifold : 24	Please note that as per clause number	Please refer amendment

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
			3.2 h)	2 of 7	Hydrogen gas filling.....	3.2 h) customer has asked for 20 connectors however as per clause no. 4.7 the number of connector mentioned as 24. Please clarify.	
60.	III	D19	2.9.3	SHT3 OF 7	One (1) set of balancing equipment	Pl furnish the specific equipment names consisted in set. Kindly Confirm.	Bidder to supply standard static balancing equipment.
61.	III	D19	2.10.8	SHT4 OF 7	General machines:		
					1) One (1) Static balancing m/c	One (1) Balancing m/c of capacity of handling Job dia (Max) -1 meter, Job Weight – 2 Tons shall be provided. Kindly Confirm.	Acceptable.
					2) One (1) hot air blower	Customer is requested for specification for equipment.	Bidder to supply standard equipment.
					3) One (1) incubation heater	Customer is requested for specification for equipment.	Bidder to supply standard incubation heater to hold 20 welding rods packets
					4) One (1) hydraulic puller	Parameter shall be considered as mentioned in data sheet- A in D 1.8 of hydraulic puller , however accessories from si no 2.3 to 2.8 are not applicable for puller hence the same will not be included in Bidder scope. Kindly Confirm.	Acceptable.
62.	III	D19	2.11.1	SHT4 OF 7	One (1) Portable compressor complete with 10 Gallon capacity and compressed air spraying equipment complete with spray gun, stirrer and accessories suitable for painting application	One (1) Portable compressor complete with Capacity 127 Liters /Min Pressure: 7 Kg/cm2 capacity and compressed air spraying equipment complete with spray gun, stirrer and accessories suitable for painting application	Acceptable with tank capacity of 10 gallon
63.	III	D19	2.12.2	SHT4 OF 7	Two (2) welding generator	Customer is requested for specification for equipment. Kindly Confirm.	Bidder to consider following parameters: 1. Current range=35-320 A 2. OC voltage=100V 3. Output kW=14 4. Insulation class=F 5. Current regulation=Stepless

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
64.	III	D19	2.12.2	SHT4 OF 7	Two (2) TIG welding set	Customer is requested for specification for equipment. Kindly Confirm.	Standard TIG welding set to match the parameters of welding generator and 50 Nos. spare electrodes along with cable, handgloves, protection shield shall be provided.
65.	III	D19		5 SHT4 OF 7	Sub vendor	Sub vendors shall be Bidder's approved reputed manufacturers. Kindly Confirm.	Please confirm as per specification.
81.	III B	D11	Datasheet A	1 of 3	Maximum Allowable Pressure drop across ADP:0.3 Kg/cm2	Maximum Allowable Pressure drop across ADP shall be 0.5 Kg/cm2. Please confirm acceptance.	Acceptable.
82.	III B	D11	Datasheet A	2 of 6	MOC for compressors	MOC for air compressors within compressor skid shall be as per reputed manufacturer standard. MOC outside skid shall be as per specification. Similarly instruments within Compressor canopy shall be as per manufacturer's standard. Similarly MOC for air drying plant internals shall be as per reputed manufacturer standard. Please confirm acceptance.	Acceptable.
84.	III B	D6	Datasheet A	4 of 5	one vehicle (Make-Mahindra -Bolero) with rescue articles such as Breathing apparatus (BA) set, fire entry suit , first Aid articles & other all fire safety articles / apparatus shall be provided to fire station for handling the catastrophe with seating arrangement for carrying 4/5 fire force.	In the absence of specification for the Mahindra bolero, we have considered one no. of fire jeep with all accessories as per IS 944 has been considered. Please convey acceptance.	Acceptable.
85.	III	D-12	1.2.4	2 of 28	Make-up water for AC and Ventilation system equipments (cooling tower, expansion tank and air washer/UAF make up through dedicated softening plant (ion exchange type). The softening plant is in bidder scope.	Make-up water for AC System equipments (cooling tower, expansion tank etc.) shall be supplied through dedicated softening plant (ion exchange type). However for Ventilation system equipment, Clarified / Filtered water shall be used as make-up. Please Confirm.	Acceptable.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
86.	III	D-12		5 11 & 24 of 28	CONTROL PHILOSOPHY, SEPARATE PLC FOR AC & VENTILATION SYSTEM -----	COMMON PLC – SYTEM FOR AC & VENTILATION SYSTEM WITH REMOTE I/O PANEL FOR AHU'S, AW & UAF ETC. SHALL BE PROVIDED. Please Confirm.	
88.	Vol III	D10	2.1.1	2 of 7	Two (2) nos double girder EOT crane of minimum 150/40T capacity with lifting beam arrangement.....	Since stator lifting is not envisaged by cranes hence one no crane is considered for erection of IP turbine (completely assembled), the weight of which is approximately 170T. Considering 5 % margin over heaviest weight, the crane capacity shall be 180/20T. Kindly Confirm.	No. of cranes shall be two and capacity shall be selected as per clause 2.3 of vol IIIB, section D10.
89.	Vol III	D7		1 17 of 22	Thermal Insulation 1. Emissivity is not specified. 2. Wind velocity is not specified.	As per our standard practice, following parameters shall be considered for Thermal insulation • Wind velocity:-1.0M/s • Emissivity :- 0.2 Kindly Confirm.	Wind velocity:- 0.5M/s
90.					The scope -----3-D Modelling system	Drgs will be prepared in 2-D environment. However non-editable 3-D model of the plant will be provided upon engineering completion. Kindly Confirm.	Acceptable.
111.					Void		
113.	Vol IIIB	Section:D16	Clause 1.0	1 of 11	Belt conveyor type system is envisaged in specs.	Mechanical conveyor/mass conveyor in place of belt conveyor type system shall be offered. Alternately pneumatic type reject conveying system can also be offered by us for your consideration. We submit that pneumatic conveying type system is better than belt conveyor type system.	Alternatively bidder can supply pnumatic conveying system.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
115.	Vol IIIB	Section:D16	Clause 2.0 & 3.1.42	1 & 6 of 11	auto operated & remote operated sector gate is mentioned. Suitable motor operated gates shall be provided for mill reject hopper.	The sector gate offered shall be manually operated and not motor/auto operated. It is desired that operation of gate should be local keeping in mind safety of operating personnel. Kindly confirm acceptance.	Acceptable.
118.	Vol IIIB	Section:D16	Clause 3.1.44	6 of 11	Suitable motor operated gates shall be provided for mill reject hopper.	Kindly note that motor operated gates are not envisaged for reject hopper of MRS system. Knife gate valves (manual/pneumatic operated) as per system requirement shall be provided. Kindly confirm acceptance.	Acceptable.
119.	Vol III	Section:D16	Clause 3.1043	6 of 11	The liner on the gate plate shall be TISCRAAL	Pl. note that for the referred application, knife gate valves are provided and same are normally open /close type (depending of application-oversize/by-pass/isolation). Liners on the plate are not envisaged. Kindly confirm acceptance.	Acceptable.
121.	Vol IIIB	Section:D16	Clause 3.1.45	6 of 11	Bottom of operating floor shall be 5.0 M above ground level and column centers shall be 6.0 M to enable passage of trucks.	Clear headroom of 4.5 M in line with normal practice has been envisaged. The clear column distance between the reject bunker columns shall be 5.0 meters in place of 6.0 meters in line with standard practice followed for MRHS. Moreover in case of pneumatic type conveying system this should be left to detailed engineering as placing/ routing of reject pipes is governed by various factors including silo capacity. Hence as of now system as per standard practice followed has been envisaged. Kindly Confirm.	Acceptable.
125.					General	Tank dyke area is very far off from the HFO unloading pump house. Further, there is no mention of intertank transfer facility in the tender specification. Hence, intertank transfer facility is not envisaged. Pl confirm.	To be provided as per requirement

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
127.	III	D - 14	1.1	1 of 10	HFO shall be brought to site...	Now a days BTPN wagons are used to transport HFO to site. Each rake carries 48 nos. of wagons and each wagon have a capacity of 55-65 Tonnes. Customer to check and clarify the type of wagon to be considered for this job. Further, customer to confirm the two tracks which shall be used for oil unloading.	To be designed for both the type of wagons
128.	III	D - 14	1.2	1 of 10	LDO shall be brought to site....	Four (4) nos. simultaneous unloading of road tankers shall be considered for design of LDO system. Customer to review and confirm.	Acceptable.
129.	III	D - 14	1.3.1	1 of 10	Adequate nos. of spare conection to be provided...	PI indicate the no. of spare connection in both LDO and HFO unloading. Accordingly same shall be provided.	20%
130.	III	D - 14	1.3.2	1 of 10	For HFO unloading consider a wagon....	As per tender specification, wagon retention time is given as five (5) hrs, out of which three (3) hrs will be for oil unloading and two (2) hrs for wagon heating. It may please be noted that the pump quantity and capacity have been considered as per tender specification. This has fixed the unloading time once pump is started. However, the shunting time, hose connection time, heating time (even though no heating facility is available in BTPN wagons) can not be predicted as it depends on operator skill and are beyond the control of the system designer. Hence, wagon retention time can not be guaranteed by us. In case customer feels to further reduce the unloading time by adding one more pump in order to get more cushion on shunting time, additional pump requirement may pl be specified in response to this clarification. Kindly Clarify.	Additional requirement may be considered
131.	III	D - 14	1.3.3	1 of 10	Nine....HFO unloading pump of twin screw type...	Customer to specify the no. of working and standby pumps for HFO unloading system. Accordingly, HFO unloading system shall be designed.	Four + Four + one standby.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
132.	III	D - 14	1.3.4	1 of 10	Two (2) nos., HFO storage tank.....	Each of HFO storage tanks shall be provided with one (1) no. mechanical float type level indicator and two (2) no. level transmitter only. No level switches are envisaged for this package as interlock and monitoring can be done by level transmitter. Additionally, HFO storage tanks shall be provided with temperature indicator and temperature element for temperature measurement and control. Pl. Confirm.	Acceptable.
133.	III	D - 14	1.3.4 & 1.3.7	1 of 10	Two (2) nos., HFO storage tank.....	Definition of net capacity may please be defined for selecting the tank dimensions. We presume it is from tank bottom to bottom of overflow nozzle. Customer may pls. review and confirm.	Acceptable.
134.	III	D - 14	1.3.7	2 of 10	One (1) no. LDO storage tank, of....	LDO storage tank shall be provided with one (1) no. float and arrow type level indicator and two (2) no. level transmitter only. Temperature gauges / indicators / switches are not applicable for LDO system. As two nos. level transmitter has been considered, no level switches are required in the system and accordingly the same are not envisaged. Pl. confirm.	Acceptable.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
136.	III	D - 14		23 of 10	HFO & LDO tank instruments	HFO and LDO storage tanks shall be provided with float and arrow type level indicators and level transmitters only. Signal from level transmitter shall be forwarded to DCS as well as in the PLC system of fuel oil unloading system. Additionally, temperature indicator / gauge and temperature element shall be provided in HFO storage tanks. No level switches are envisaged for this system. Pl. Confirm.	Acceptable.
137.	III	D - 14		34 of 10	HFO tanks : (3) Design code : IS 803 / API 650	Vertical cylindrical storage tanks shall be designed from IS : 803. The design requirements which are not available in the IS 803 like seismic calculation shall be done from API 650. Pl. confirms.	Acceptable.
140.	III	D - 14		34 of 10	HFO tanks : (11) Floor coil heater...	Customer / consultant to indicate the minimum ambient temperature which will be considered for the design of floor coil heater. Pl. confirm.	12 degC
141.	III	D - 14		34 of 10	LDO tanks : (3) Design code : IS 803 / API 650	Vertical cylindrical storage tanks shall be designed from IS : 803. The design requirements which are not available in the IS 803 like seismic calculation shall be done from API 650. Pl. confirms.	Acceptable.
142.	III	D - 14		34 of 10	LDO tanks : Operating / design temperature....	As no heating is required to be provided in the LDO system, therefore operating temperature for LDO system shall be "Ambient" only. Pl. confirms.	Acceptable.
146.	III	D - 14		35 of 10	Drain oil tanks : (11) Floor coil heater: Not applicable	As HFO oil will also be stored in drain oil tank. We feel that floor coil heater in DOT needs to be provided. Pl confirm.	Acceptable.
147.	III	D - 14		36 of 10	HFO / LDO / Drain oil pumps	The drain oil pumps and oil pit pumps shall be vertical single screw type pumps in place of horizontal single screw pump. Pl. confirms.	Acceptable.
		D-14	1.8	2 of 10	Separated water shall be pumped to the effluent treatment plant.		Same shall be led to CMB.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
153.	III	D-4.3	Datasheet-A Sr. no. 3	1 of 1	Conical with self supported roof...	IS 803 permits self supported, rafter supported or central coloumn supported roof for atmospheric cylindrical vertical storage tanks and is vendor specific. Hence, it is requested to leave the type of roof to vendor only. PI review and confirm.	Acceptable.
155.	III	D-4.3	Datasheet-A Sr. no. 3	1 of 1	IS803 and API 650	As the project is in india, the tank design and construction code has been considered as IS 803. The design features for which IS is silent e.g. seismic design calculation etc. shall be done from API 650. PI confirm.	Acceptable.

159.	VOLUME IIIB	SECTION : D10	23& 24	SHEET : 1 OF 2	HOISTING SPEED: 4 M/MIN TROLLEY TRAVEL SPEED: 4 TO 5 M /MIN	Customer is requested to clarify whether the following speeds are acceptable. Hoisting -2 to 3M/min Trolley – 7 to 10 M/min. The same speeds have been considered for SG area hoists. Kindly Clarify.	acceptable.
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2	VOLUME III	SECTION D9	2.5	3 of 14	There shall be 2 nos. (1W+1S) recovery water pump with associated accessories and one recovery water pipeline, adequate for the flow rate of ash water recovered from the slurry pumped to the existing ash pond.	Also please clarify that AWRS shall be designed only for the water recovered from ash slurry discharged to the existing pond from Unit#7&8 only. AWRS shall not have any margin on the account of slurry receiving from existing units to the pond Please confirm.	Confirmed
3		Bottom Ash Handling System – Flow Diagram No.TCE.575 0A-570-FD-1014 P2	TCE.5750A-570-FD-1014 P2		Sludge has to move from sludge pit to Ash slurry pump through sludge pumps.	Please clarify that the sludge is going to ash slurry pump or ash slurry sump.	Sludge has to move from sludge pit to Ash slurry sump through sludge pumps.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
4	VOLUME III	SECTION D9	5.1.1	6 of 14	All the equipments such as HP pumps, LP pumps, ash conditioning pumps, seal water pumps, slurry pumps, CA compressor, IA compressor, slurry sump, ash water tank, switchgear room and control room shall be located in a single room.	In the plot plan drawing TCE.5750A-100-GA-1001 P4 separate ash handling plant, AHS compressor cum blower house, ash water tank are shown. Please clarify.	Bidder to suggest the feasible location in the bid. Same will be reviewed and confirmed during detailed engineering stage
5	VOLUME III	SECTION D9	5.1.10	7 of 14	Separate building shall be provided for AWRS near ash disposal area.	Please indicate the location of ash pond and AWRS location in plot plan for the sizing of slurry /recovery water pipe, pumps etc in AHS.	Ash pond is located outside the plant boundary approx 3Kms. Amendment - Vol-VII, Refer the revised plot plan.
7	Vol. III B	D9	2.0	1/14	The fly ash shall be collected at the electrostatic precipitator (ESP) hoppers, air-pre heater hoppers and stack hoppers provided along the flue gas path.	Ash handling system for stack hoppers shall be provided only if BIDDER is offering stack hoppers in the chimney. Incase stack hoppers are not offered then ash handling system below stack hoppers shall also not be applicable. Please confirm your acceptance.	Acceptable
8	Bottom ash Flow Diagram	--	--	--	Bottom ash hopper unit#5 shown in flow diagram.	Please confirm that it shall be only for Unit 7 and unit 8.	Confirmed
9	Vol. III B	D9	2.2	02 of 14	Manual evacuation facility in addition to pneumatic conveying system shall be provided with pneumatic / manually operated plate valves for loading in trucks directly from the first four fields of ESP hoppers in case of system break down	Please elaborate loading in trucks directly from the first four fields of ESP hoppers in case of system Break down whether only bypass chute with manual plate valve is required for the evacuation below the first 4 fields of ESP hoppers or any other arrangement is required. Since below the ESP there will not be enough clear headroom for the movement of trucks below the ESP hoppers of 1st 4 fields. So Customer is requested to exclude this facility from bidder's scope.	Shall be as per specification

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
10	Plot plan TCE.5750A- 100-GA-1000 P4	--	--	--	Routing of ash slurry lines to the ash pond	Please furnish the ash slurry pipe corridor routing from FA silo area to the ash pond. Also please furnish the total length of ash slurry pipe including garlanding. Also Please clarify whether entire ash pond shall be garlanded with all 4 streams of ash slurry pipes or not.	Please note that ash slurry piping routing is from ISH to ash pond. Refer plot plan and bidder to suitable arrive at the total length 15m Static lift considering future bund rise. Each garlanding pipe length shall be minimum 25m. Minimum 8 outlets along periphery of the ash pond shall be provided. Also refer amendment please refer the revised plot plan Ash pond shall be garlanded with all four streams
11	Vol. III B	D9	2.4	3 of 14	Bottom ash and Fly ash disposal pipes shall be terminated by Bidder near existing ash pond which is about three (3) km from plant boundary wall. Ash slurry piping around the ash dyke shall be in garlanded.	Please clarify the contradiction between Bottom ash and Fly ash disposal pipes shall be terminated by Bidder near existing ash pond which is about three (3) km from plant boundary wall. and Ash slurry piping around the ash dyke shall be in garlanded.	Ash pond construction is excluded from bidder's scope and part of the Ash pond area identified for units 7 and 8 shall be garlanded with all 4 streams of ash slurry pipes. Please Refer the revised plot plan
12	Fly Ash flow diagram TCE.5750A- 570-FD-1015 P2	--	--	--	Cooling tower	Customer is requested to furnish the detailed specification and capacity of FRP cooling tower required for cooling of compressor. Also please furnish the location of cooling tower.	Capacity and feasible location to be suggested by bidder and same will be reviewed DDE.
13	Vol. III B	D9	7.1 datasheet A4	4 of 7	From ash hoppers to silos MS ERW as per IS-1239 of 5.4mm thick up to 125NB and IS-3589 of 7mm for 150NB & above with 20mm thick Cast Basalt lining.	As per standard practice pressure conveying pipes for fly ash lines shall be MS ERW only. Cast basalt lining is not required for fly ash conveying lines. So customer is requested to confirm the acceptance for the MS ERW pipe without cast basalt lining.	Acceptable
15	Vol. III B	D9	Datasheet A18	01 of 02	Sump pump capacity	Please furnish the capacity of sump pump to be considered for AHP.	Bidder to select pump capacity and same will be reviewed DDE.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
16	Vol. III B	D9	2.5	3 of 14	AWRS	Please elaborate the scope for recovering ash water recovery water from existing ash pond. Customer is requested to make available recovery water from existing ash pond to the ash water recovery tank (work on existing facility is not being envisaged). Please confirm your acceptance.	AWRS, Settling Pond, Collecting well with all other accessories shall be provided as per system requirements.
18	Plot plan TCE.5750A- 100-GA-1001 P4	--	--	--	Building sizes	Please clarify that building sizes mentioned in the plot plan shall be considered or as per the actual requirement.	For non plant buildings, Bidder to follow the sizing of L X B as per write-up in Vol-VI. However the total area requirement will be as per guidelines given in Vol-VI. For plant buildings, bidder to follow the process requirements keeping the sizes as indicated in the plot plan as minimum.
19	Vol. III	D9	Datasheet A6	1 of 3	All the compressors capacity shall be based on emergency condition. However bidder to decide the Nos. and capacities to meet the system	Please confirm that no. of conveying air compressor shall be as per actual requirement and as per actual fly ash conveying stream capacities in emergency condition to meet the system.	No. of compressors shall not be less than the qty indicated in flow diagram and further can be reviewed during DE.
20	Fly ash Flow Diagram	--	--	--	Water for Ash conditioner	Please confirm that water for Ash conditioner shall be provided by taking tapping from LP water pumps in AHP building.	Confirmed
21	Vol. II	F3	3.11	14/16	Auxiliary power consumption	Please clarify that auxiliary power consumption for Ash handling plant shall be furnished for both the unit together and not unit wise.	Confirmed.
22	Vol. II	C3	6	14/19	Tolerance limit of 10 % on negative side	Please clarify the meaning of tolerance limit of 10 % on negative side for equipments.	Tolerance limit of 10 % on negative side is not mentioned in specification for AHP. Negative side tolerance shall be Zero.
1	Vol. III B	D8	Data Sheet A,4.1	6/37	Stacker -Reclaimer Average reclaiming:765 TPH Peak Reclaiming:1000 TPH	Please confirm the capacity mentioned for Stacker- Reclaimer for average and peak reclaiming is in order.	Confirmed

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
2	Vol. III B	D8	Data Sheet A,4.0	11/37	Travelling Tripper Nos.: Eight Type of discharge chute: Two/three way chute	Customer is requested to consider travelling tripper with one legged discharge chute as it will not effect by any means on the performance and capacity while conveying coal to the bunker. As per BIDDER's bunker/bunker bay design, 2 streams of travelling tripper with two legged discharge chute cannot be accommodated on the space available on the bunker floor. Please confirm the acceptance of travelling tripper with one legged discharge chute.	shall be as per specification.
3	Vol. III B	D8	2.1 a)	2/25	A separate coal testing laboratory with facilities for sample preparation, testing and storage of reference samples shall be provided at the wagon tippler area.	A separate coal testing Laboratory is generally not being asked as a part of coal handling system and has not been supplied as a part of CHP. Generally coal sampling unit is to be provided for crushed coal and uncrushed coal. 4 nos. of CSU as indicated in the coal flow diagram will be taken care. Detailed specification for separate coal testing laboratory is not available in the tender spec. We request customer to exclude this from the package. Kindly confirm.	separate coal testing laboratory shall be provided. For list of testing equipment please refer s.no. 13.2.2, section D4, sheet no. 19 of 23, Volume III Part B.
7	Vol. III B	D8	3.1.59	9/25	The bottom portion under the conveyors shall be provided with sealing plate of MS minimum thickness – 3.	Please clarify that sealing plate shall be provided continuously below the conveyor or only at the road/railway crossing. Generally it is provided for road/railway crossing only. Kindly confirm	Sealing plate shall be provided continuously for entire length of the conveyor
8	Vol. III B	D8	3.1.73	13/25	One (1) passenger cum goods elevator shall be provided in crusher house	Please clarify that one no. passenger cum goods elevator shall be provided for both primary and secondary crusher houses or only in the secondary crusher houses. Also please confirm that the elevator shall be rack and pinion type only. Also please furnish the capacity of elevator.	Passenger cum goods elevator shall be provided in both primary & secondary crusher house. Bidder to specify the capacity and same will be reviewed during bid discussions.

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
9	Vol. III B	D8	3.1.74	13/25	Total four (4) nos. of JCB's (Hydraulic Excavator type) one no. for each Wagon tippler for occasional breaking of large lumps shall be provided.	Please clarify that hydraulic excavator shall be supplied JCB make or any other equivalent make. Please Clarify. Also please furnish the capacity and specification of hydraulic excavator.	Hydraulic excavator with rock arm assembly model BE75 of BEML or equivalent
10	Vol. III B	D8	3.1.69	13/25	For day to day maintenance / breakdown maintenance of 6 Nos. Bull dozers, maintenance shed having EOT crane of minimum 5T capacity Shall be provided near Stacker reclaim area.	Please furnish the capacity and specification of bull dozers. Kindly furnish. Please clarify that how many no. of dozers to be accommodated in maintenance shed. This is required for fixing the dimension of maintenance shed.	Dozer is excluded from bidder scope of work. Maintenance shed for 6 nos. of dozer are in bidder scope of work.
11	Vol. III B	D8	3.1.77	13/25	Some portion of the DS water will be absorbed in crushed coal, some will be percolated to the ground and some portion will evaporate. The remaining water will come out as a coal pile effluent. This effluent shall be collected in a RCC twin chamber runoff pond through garland drains.	Please clarify that what shall be the percentage of water coming out as a coal pile effluent as specification is not clear. Also please furnish the capacity of overflow transfer pump at coal settling pond.	Bidder to suggest the capacity of overflow transfer pump. Will be reviewed during detailed engineering stage
14	Vol. III B	D8	2.1	2/25	Coal shall be extracted from wagon tippler hopper by apron feeder for onward conveying to the Primary crusher house (PCH).	Please confirm that capacity of wagon tippler hopper shall be 200 MT.	Minimum 200 MT
15	Vol. III B	D8	3.1.43	8/25	The crushed coal stock pile shall be suitable for storing coal for a Minimum of 30 days MCR requirement with PLF of 0.85 based on worst coal. However, the stockpile capacity shall be minimum 5, 50, 000 tones.	Coal stock pile capacity shall be as per the dimension (length and width) shown in the plot plan TCE.5750A-100-GA-1001 P4 considering 10 meters height (As given in the spec) of the stockpile. The no. of days of storage shall be as per BIDDER coal consumption data. Please confirm your acceptance.	Stockpile capacity shall be as specified in the enquiry specification. Stockpile dimensions will be reviewed during detailed engineering stage
16	Vol. III B	D8	3.1.52	9/25	WT hopper, reclaim hopper and tunnels shall be provided with Submersible sump pumps (1 operating + 1 standby).	Please furnish the capacity (flow, head) of submersible sump pump. Please also furnish the details of instrumentation required for the sump pump.	Bidder to suggest the capacity & the same will be reviewed during detailed engineering stage. Instrumentation shall be provided as per good engineering practice

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
17	Vol. III B	D8	3.2 Data sheet A	18/37	One no. BVS for each set of 3 Bunkers.	One no. of bunker ventilation system shall be provided for each bunker bay. Please confirm your acceptance.	Shall be followed as per enquiry specification. Depending on the bunker bay layout will be reviewed during detailed engineering stage
18	Vol. III B	D8	3.1 Data sheet A	18/37	No. of DE system: 2W+2S in Secondary crusher house	Please clarify that 1 W+1S DE system in each secondary crusher house shall be as per working/standby stream wise. DE system shall be only on screen and crusher floor only. Kindly confirm.	Yes. Confirmed. Outgoing conveyor from crusher house shall be provided with DFDS system.
19	Vol. III B	D8	1.1	1/25	CHS shall consist of two parts, each parts consists of two streams with one normally operating and the second stream as stand by with provision for interchanging the paths at every transfer point and between crushers and screens.	Provision for interchanging the path at every transfer point and between the crusher and screens shall be as per the coal flow diagram TCE.5750A-563-FD-1013 P1. Please confirm.	Confirmed.
20	Vol. III B	D8	4.0 Datash eet A	35/37	Vibrating feeder capacity	Please furnish the capacity of vibrating feeder.	Each vibrating feeder shall be rated for 500TPH
22	Plot plan TCE.5750 A-100-GA- 1001 P4	--	--	--	Capacity of BCN 13A/211 A and BCN 13B/211B	Please clarify the capacity of BCN 13A/211A and BCN 13B/211B .Since the reclaiming from domestic and imported stockpile is in the ratio 70:30 so conveyor capacities for the conveyors below ERH shall also be in line with 70:30 compositions. Please confirm your acceptance.	Shall be rated for 1000 TPH as per enquiry specification
23	Plot plan TCE.5750 A-100-GA- 1001 P4	--	--	--	In motion weigh bridge	Three nos. in motion weigh bridge is shown in the plot plan and marked as item no. 55. Please clarify.	Two (2) nos. In motion weigh bridge shall be provided

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
24	Plot plan TCE.5750 A-100-GA- 1001 P4	--	--	--	Building sizes	Please clarify that building sizes mentioned in the plot plan shall be considered or it is as per the actual requirement.	For non plant buildings, Bidder to follow the sizing of L X B as per write-up in Vol-VI. However the total area requirement will be as per guidelines given in Vol-VI. For plant buildings, bidder to follow the process requirements keeping the sizes as indicated in the plot plan as minimum.
25	Plot plan TCE.5750 A-100-GA- 1001 P4	--	--	--	Loco shed	Please provide the details and drawings of loco shed.	Bidder to follow the details of existing loco shed.
26	Vol. II	C6	6.0.12	3/6	The Bunker floor and crusher houses shall have separate stair case for fire evacuation as per TAC norms.	We will provide total one no. staircase outside the crusher house where landing shall be provided for each floor in the crusher house. Please confirm your acceptance.	Two nos. of staircase (one no. inside & one no. outside) shall be provided in all crusher houses.
28	Vol. II	F3	3.11	14/16	Auxiliary power consumption	Please clarify that auxiliary power consumption for coal handling plant shall be furnished for both the unit together and not unit wise. Also please clarify that which path to be considered for computing Auxiliary power consumption.	For computing auxiliary power consumption longest path and working of two separate systems shall be considered.
29	Vol. II	C1	1.3.5	23/44	All miscellaneous equipment	Please define the clause all miscellaneous equipment as it is not clear.	Any other equipment required for completeness of the CHP system are included in bidder scope of work.
30	Vol. II	C1	1.8.1	39/44	Exclusions	Clause 1.8.1 a) is missing in the list of exclusions. Please clarify.	Please consider this as void
31	Vol. II	C20	20.5	3/4	Waste water from coal handling plant area including coal stock area would be led to coal settling ponds of adequate storage capacity located near the coal Stock.	Please confirm that coal settling pond shall be of 30 minutes storage of rain fall as mentioned elsewhere in the spec Voll.III B, sec D8,Cl 2.0,page 27/38.	Shall be designed for 30 minutes of intense rainfall
32	Vol. II	C3	6.0	14/19	Tolerance limit of 10 % on negative side	Please clarify the meaning of tolerance limit of 10 % on negative side for equipments.	Negative side tolerance of zero shall be considered for all equipments

Sl. No.	Volume, Part	Section No.	Cl. No.	Page No.	Tender Specification requirement	Clarification	TCE reply
33	Vol. IV	D1	2.16.1	9/10	Lighting in marshalling yard	Please elaborate the requirement and type of lighting in marshalling yard or alternatively please mark the area in the plot plan for considering illumination in marshalling yard and also furnish the type of lighting required for the same.	Refer section D17, cl.no.5.0 for details.
36	Vol. II	C1	1.4.0	29/44	ABT Metering system and energy audit metering for the power plant.	Please elaborate ABT Metering system and energy audit metering for the power plant.	Refer Section D5 for the details.
37	Vol. VI	D4.2	1.42	5/9	Wagon tippler control room area	Please clarify whether one common wagon tippler control room is required for all the wagon tippler or separate control room is required for each wagon tippler.	Separate control room for each Wagon tippler shall be provided
38	Vol. VI	D4.2	1.28	4/9	Sick wagon shed with associated building as per RDSO Norms	Please furnish the dimension and drawing of the building.	Bidder to suggest and the same will be reviewed during detailed engineering stage

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S.no	Specification / Reference				Specification / Customer	BIDDER PROPOSED CLARIFICATION/ DEVIATION	CLARIFICATIONS/ AMENDMENTS BY OWNER /
	Volume	Sect.	Clause	Page			
1	III	D11	2.2	1 of 9	Capacity of air compressors shall not be less than 2000 Nm ³ /hr.	Please clarify the specified capacity is Normal or free air delivery (FAD)	2000 Nm ³ /hr shall be considered
2	III	D11	Data sheet-A, Sl no 12	1 of 6	CAPACITY (FAD): 2000 M ³ /Hr		
3	III	D11	Annex-I, Sl no 2.0	6 of 9	CAPACITY OF AIR RECEIVERS (Method 2): Time for standby compressor to come in and reach rated speed (10 seconds)	As discussed with OEM, the standby compressor will come in and reach rated speed within 5-6 seconds. The same will be considered for receiver sizing instead of 10 seconds. Please confirm.	10 Seconds shall be considered as per enquiry specification.
4	III	D12	3.1	18 of 28	Ventilation system Air washer/UAF sizing: 8 Air change per hour for TG hall and 15 for switchgear/MCC room of ESP control building	Criteria should be 5-6 ACPH for TG hall and 10 ACPH for ESP control building as per general engineering practice, however the inside temperature shall be maintained in line with specification i.e. 5 to 6 deg C less than ambient dry bulb temperature during peak summer. Kindly confirm.	Ventilation system Air washer/UAF sizing shall be followed as per enquiry specification. Specified inside temperature (i.e. 5°C to 6°C less than ambient) is acceptable for TG bldg., MCC Room and ESP Switchgear room. However for all other ventilated areas bidder to maintain the inside temperature as 3°C less than ambient.
5	III	D9				Customer is requested to furnish the following details wrt ash disposal to pond, if any :- a) Disposal length, height of bund [above ground] for present phase.	Bottom ash & Fly ash disposal pipes shall be terminated near existing ash pond which is about three (3) kms from plant
6	II	C1	1.3.6 (e)	sheet 24	There shall be four (4) FA day silos, two for each unit.	Text of specification calls for six (6) fly ash storage silos in vol. III, section - D9, clause no. 2.3 at sheet 2 of 14. Customer is requested to clarify.	There shall be Four (4) nos. of 1000T each fly ash silos, two (2) nos. for each unit shall be considered. Request bidder to refer specific project specification
7	III	D9	2.4	sheet 3 c	Alternatively if type of disposal of BA is in semi dry form then BA slurry shall be pumped to hydrobins for separation of water and semi dry BA shall be transported to ash pond through belt conveyors / Trucks.	No requirement of hydrobin is shown in Bottom ash handling system - flow diagram (TCE.5749A-570-FD-1014, Rev. - P2) for transportation of bottom ash in semi dry mode to ash pond through belt conveyors / trucks. Customer is requested to clarify.	Alternate option is not required. Bidder to follow as per enquiry specification and flow diagram.
8	III	D9	3.2	sheet 4 c	FA evacuation rate shall be designed for the emergency condition based on 8 hours storage and 4 hours evacuation from various hoppers of both the units simultaneously.	Text of specification calls for fly ash disposal into ash disposal area, under emergency condition; from both the intermediate silos in 5 hours in a shift of 8 hours as per vol. III, section - D9, clause no. 3.2 at sheet 4 of 14. Customer is requested to clarify.	Fly ash disposal into ash disposal area, under emergency condition; from both the intermediate silos in 4 hours in a shift of 8 hours as per vol. III, section - D9, clause no. 3.2 at sheet 4 of 14. Bidder to refer the specific project specification
9	III	D9	10.5	sheet 12	Steam generator worst coal requirement at MCR condition of each unit is 380 TPH.	Fuel firing rate is 405 TPH as per Data Sheet A in vol. III, section - D8, Sl. no. 2.0 at sheet 1 of 38. Customer is requested to clarify.	Fuel firing rate of 405TPH per unit shall be considered.
10	III B	D4	3.5.4 d	4 of 23	3x50% Filter backwash pumps	In Water and material balance diagram it is mentioned as 2 x 100% Please clarify.	3x50% Filter backwash pumps shall be offered
11	III B	D4	4.2.2	7 of 23	3x70% capacity pumps shall pump clarified water to the filtration plant. These pumps shall take suction from the DM Clarified Water Tank.	In Water and material balance diagram it is mentioned as 3 x 50% Please clarify.	The capacity and configuration shall be offered as per data sheets
12	III B	D4	8.2 c	15 of 23	2 x 100% TG DM cooling water pumps(for each unit)	It is shown as 3 x 50 % in Scheme of Water system and Material Balance. Please clarify.	The capacity and configuration shall be offered as per data sheets

S.no	Specification / Reference				Specification / Customer	BIDDER PROPOSED CLARIFICATION/ DEVIATION	CLARIFICATIONS/ AMENDMENTS BY OWNER /
	Volume	Sect.	Clause	Page			
13	III B	D4	9.1 para-2	16 of 23	Dedicated booster pumps shall be provided for ESP/APH washing. The pumps shall be 2x100% (1w+1s) for each unit. These pumps shall be of horizontal centrifugal type. The pumps shall be suitably located close to the ESP's taking suction from blowdown tank.	In water balance it is shown as 3 x 50 %. Please clarify. Please confirm that those pumps shall be of Horizontal centrifugal type(Not Vertical Type) along with other pumps like CHP Water Supply, Ahp Water Supply, Gardening & Fire water pumps, Taking suction from CT blowdown collection tank cum CMB shown in Water and Material Balance Diagram (TCE.5749A-610-FD-1010, Issue-P1).	Please consider the 2X100% dedicated horizontal pumps for ESP/APH wash. The location of pumps shall be in CMB only.
14							
15	III B	D4	3.5.1	3 of 23	2x60% capacity main clarifiers shall be provided to meet the requirements of plant .	In Water and material balance diagram (DGW no.. 5750A-610-FD-1010) it is mentioned as 2 x 50% Please clarify.	The capacity and configuration shall be offered as per data sheets
16	III B	D4	4.2.3	8 of 23	3x70% capacity Dual media filters (DMF) shall be provided to reduce suspended solids from the feed water.	In Water and material balance diagram (DGW no.. 5749A-610-FD-1010) it is mentioned as 3 x 60% Please clarify.	The capacity and configuration shall be offered as per data sheets
17	III B	D4	4.2.4	8 of 23	3x70% capacity Activated carbon filters (ACF) shall be provided to reduce organics ,colors & residual chlorine	In Water and material balance diagram (DGW no.. 5749A-610-FD-1010) it is mentioned as 3 x 60% Please clarify.	The capacity and configuration shall be offered as per data sheets
18	III B	D4	4.3.1	8 of 23	3x 70% capacity SAC (DM plant)	In Water and material balance diagram (DGW no.. 5749A-610-FD-1010) it is mentioned DM plant capacity as 3 x 60% Please clarify.	The capacity and configuration shall be offered as per data sheets
19	III B	D4	4.3.2	8 of 23	3x70% capacity Degasser towers (DM Plant)	In Water and material balance diagram (DGW no.. 5749A-610-FD-1010) it is mentioned DM plant capacity as 3 x 60% Please clarify.	The capacity and configuration shall be offered as per data sheets
20	III B	D4	4.3.6	8 of 23	3x70% capacity of WBA towers (DM Plant)	In Water and material balance diagram (DGW no.. 5749A-610-FD-1010) it is mentioned DM plant capacity as 3 x 60% Please clarify.	The capacity and configuration shall be offered as per data sheets
21	III B	D4	4.3.7	8 of 23	3x 70% capacity SBA (DM plant)	In Water and material balance diagram (DGW no.. 5749A-610-FD-1010) it is mentioned DM plant capacity as 3 x 60% Please clarify.	The capacity and configuration shall be offered as per data sheets
22	III B	D4	4.3.8	8 of 23	3X70% capacity MB unit (DM plant)	In Water and material balance diagram (DGW no.. 5749A-610-FD-1010) it is mentioned DM plant capacity as 3 x 60% Please clarify.	The capacity and configuration shall be offered as per data sheets
23	III B	D4	4.3.10	8 of 23	3X 60% Ultra Filtration units , complete with all accessories for chemical treatment (inclusive of 3X60% UF feed pumps,2X100% backwash pumps,2X100% fast flush pumps)	In water system (DM Plant), there is no data sheet is available for Ultrafiltration unit. Please provide the details of Ultrafiltration unit .	Bidder to furnish UF as per their offer along with bid as per system requiremenr indicating the deisgn basis and other details
24	III B	D8	3.1.77	13 of 25	Coal yard drainage : run off pit near coal stockpile area shall be designed for 30 minutes retention time considering intensive rainfall recorded	reference : coal handling data sheet - (vol.-III, Section D-8, page no. 25 of 37): coal pile run off pit : 2. 0 capcity - based on maximum fall to suit 10 hrs storage. Please clarify that runoff pit holding capacity	Coal yard drainage : run off pit near coal stockpile area shall be designed for 30 minutes retention time considering intensive rainfall recorded.
25	VI	D 4.5	32.0	56 of 61	Sewage treatment plant : the treatment plant shall be sized to cater the total sewage from power plant	Reference : Effluent recycle and reuse system : (vol III,Section D5, page no. 2 of 2, clause no. 10) - a complete sewage treatment plant shall be provided to treat the sewage from the power plant & the colony . Whether common sewage treatment plant need to be build up for plant & the colony. or shall be done separately. please clarify	STP for plant to be offered. Colony sewage is excluded from the bidder's scope.
26	III B	D5	Effluent recycle & reuse system	1 of 2	reference (4.0: general requirement) : The contractor shall implement all the control measures as proposed in rapid environment Impact assessment report for environmental management and for utilization /recycling/reuse of dry flyash	There is no as such report available in tender.It is understood that implimentation of this directive shall be Owners responsibility.	As per Specification clause 6.1 section-D4 page 13 of 23 volume IIIB please offer ZERO discharge plant
27	VI	D 4.5	26.3	41 of 61	Effluent treatment plant: The ETP shall be necessarily comprised of oil separator ,settling ponds,clarifiers,sludge thickeners.R.O Plant of 300 m3/hr capacity for each unit etc. storage reserviour of capacity equivalent to 15 days of designed discharge from ETP shall be constructed . the water recovered shall be suitably connected to floor washing,dust supression, agrdening/development of green belt , fire water and wash water sumps etc	This requirement is different than the requiremnnet of ETP. Please clarify .	Provide Structures based on system requirements. For details please refer the Vol. IIIB section-D5 & Vol-VII for Water balance diagram.

S.no	Specification / Reference				Specification / Customer	BIDDER PROPOSED CLARIFICATION/ DEVIATION	CLARIFICATIONS/ AMENDMENTS BY OWNER /
	Volume	Sect.	Clause	Page			

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Specification / Reference				Specification / Customer	BIDDER PROPOSED CLARIFICATION/ DEVIATION	CLARIFICATIONS/ AMENDMENTS BY OWNER / CONSULTANT
Volume	Sect.	Clause	Page			
Plot Plan		TCE.5749 A-100-GA-1001		Plot plan given is in PDF (Non editable format)	Customer is requested to furnish plot plan in AUTO CAD (editable format)	Auto cad format attached
Property Plan		TCE.5749 A-100-GA-1000		Property plan given is in PDF (Non editable format)	Customer is requested to furnish property plan in AUTO CAD (editable format)	pdf format attached
Schedules /Datasheets				Schedules (data sheets) given is in PDF (Non editable format)	Customer is requested to furnish Schedules (data sheets) in editable format.	Data sheet-B will be furnished in editable format. However Bidder shall not change the format or the content in the data sheets
Rainfall Data				Owner had given average annual rainfall data	Customer requested to submit one hour peak intensity rainfall data for last 10 years	Available data has been furnished. Bidder to obtain further data from Indian Matereological department - IMD.

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