

ENGINEERS INDIA LTD GURUGRAM - 122001					
COOLING TOWER AND COOLING WATER TREATMENT PLANT PACKAGE FOR BIO-REFINERY PROJECT OF M/S - ASSAM BIO REFINERY PVT LTD, NUMALIGARH					
PRE-BID CLARIFICATIONS					
S.No.	Reference		Description	Query	Clarification
	Section	Cl.no/Page.No			
1	NIT	2.0	Geo-tech works	We understand that geo-technical investigation work will have to be carried out by successful bidder after placement of order. Please confirm.	Confirmed.
	NIT	3.0	TIME SCHEDULE FOR COMPLETION: 15 Months from the date of issue of Letter of Acceptance (LOA)	The specified completion time is too tight considering the quantum of work involved in this tender. We request Owner / EIL to provide at least 24 months time for mechanical completion and additional 2 months for Commissioning thereafter.	Bidder to follow Tender requirement
3	INSTRUCTIONS TO BIDDER (ITB)	Clause 13.1	Bid Validity : 3 months	Information furnished in the referred clause is in contradiction with NIT Cl. 7.3. Please clarify the actual requirement.	Bid Validity is 4 months as per Cl. 7.3 of NIT.
4	SPECIAL CONDITIONS OF CONTRACT	Clause 18.6.1	Without prejudice the provisions of clause No. 18.1 to 18.5 above, subject to availability, construction power shall be supplied by OWNER on chargeable basis at single point near the battery limit. Power at single point shall be provided free of cost.	We understand that construction power will be issued by Purchaser on free of cost basis at a single point near the battery limit of subject cooling tower package. Please confirm. However, in case construction power will be provided by Purchaser on chargeable please furnish the rate at which construction power will be provided to Contractor.	Power will be supplied free of cost basis to a single point.

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5	SPECIAL CONDITIONS OF CONTRACT	Annexure - X	Payment Terms	<p>We expect 10% of the Contract Value as interest free mobilisation advance.</p> <p>For the last 3 installments as per payment terms, we request to add the following provisions considering delay in commissioning and PG test for reasons not attributable to the Contractor:</p> <ul style="list-style-type: none"> - 2% of Contract value on Commissioning* - 1% of Contract value on successful Performance Guarantee Test Run of Cooling Tower# - 2% of Contract Value against Final Certified Bill@ <p>* in case commissioning gets delayed by more than 3 months from the date of mechanical completion for reasons not attributable to the Contractor, said 2% payment payable against mechanical completion shall be released against submission of equivalent amount of BG valid for 6 months.</p> <p># in case Performance Guarantee Test Run of Cooling Tower gets delayed by more than 3 months from the date of commissioning of cooling tower or 6 months from mechanical completion of cooling tower for reasons not attributable to the Contractor, said 1% payment payable against Performance Guarantee Test Run of Cooling Tower shall be released against submission of equivalent amount of BG valid for 6 months.</p> <p>@in case of delay of mechanical completion and / or Performance Guarantee Test Run of Cooling Tower beyond the limits mentioned above (for reasons not attributable to Contractor), balance 2% payment of contract value may please be released against submission of equivalent amount of BG valid for 6 months.</p>	This is not acceptable. Follow the provisions of Bidding document.
6	Price Schedule	SP-8A	Description of Schedule	Description of the schedule SP-8A has been indicated as 'Price Schedule of Recommended Spares for Two Years Operation & Maintenance' instead of "GST Details". This needs to be corrected suitably.	It is in order.
7	Price Schedule	SP-10	Unit Rate for addition or deletion of cell	Quoting against this schedule would not be practical for the subject cooling tower package. We understand that it is not mandatory to quote against this schedule. Please confirm.	It is mandatory to quote against Unit Rate for addition or deletion of cell

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8	Doc. no. B215-000-81-41-GTD-0012 Rev. 0; GEOTECHNICAL DATA FOR COOLING TOWER & CWTP PACKAGE	Clause 1.0	Bidder shall carry out soil investigations in the proposed area to check and confirm the soil conditions and/or to develop additional soil data required for foundation design ... Notwithstanding the information given herein, no extra claim on time and/or cost shall be entertained by owner in case of change in any data due to subsoil variations.	Please furnish site specific geo-technical data for cooling tower location. Please note that any time / price implication due to variation in actual soil profile from the soil data furnished during bidding stage should be borne by Purchaser.	Available information is included in the tender document. Deviation, if any, shall be dealt with as per the provisions of contract.
9	B215-167-17-44-8P-1001	Side Stream Filter	SSF Design Capacity : 440 CMH (1W+1S)	Considering the design flow and pressure we propose to consider Side Stream Filter in (2W+1S) configuration to cater the required flow . Please confirm.	With reference to query No. 9, bidder to note that design capacity of the side stream filter is amended as 400 m3/hr.
10			GA Drawing of Pump House	Please furnish tentative GA drawing of Pump house, if available.	Detailed engineering is in contractor's scope.
11	Doc no. B215-000-17-44-SP-8700, Rev - A	Clause 4.4	Fill Support : Fill shall be pure fill supported on pultruded glass reinforced polyester grits.	PVC film type fill will be bottom supported on pultruded FRP girts. Fill support grids are applicable for PVC V-bar type fill only and hence are not applicable for film type fill.	Noted
12	Doc no. B215-000-17-44-SP-8700, Rev - A	Clause 7.7	Lifting Device	We propose to use dolly cart, track for cart movement, removable hoist column/end wall derrick with chain Pulley Block for handling fan, gearbox and motor of cooling tower. Please confirm.	Confirmed

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13	Sub-vendor list for CT Packages			We presume that for bought-out Items for which approved sub-vendor list is not available, Contractor may source those items from reputed Indian manufacturers, subject to EIL / Owner's approval.	Sub vendorlist available with tender document except for Pump. Sub vendor list for the PUMP refer attachment.
14	Doc. No. B215-000-16-50-SP-8700 Rev. A	Clause 7.2	Area classification and the equipment selection shall be based on IS 5571, IS 5572 and IS/IEC-60079. However all electrical equipment in cooling tower shall be suitable for minimum Zone-2 area classification. Following as a minimum shall be followed for Zone-2 equipments: ☑ MV Motors – Ex-n	Please furnish the Gas Group and temperature class applicable for the type Ex-'n' type cooling tower fan drive motors.	In line with Cl. 7.1 of Job specification B215-000-16-50-SP-8700 Rev. A, Detailed area classification drawing for the complete CT package (including CT, CWTP, Sump Pump House, etc) shall be prepared by the Package vendor. Accordingly, Gas group and Temperature class shall be as per the Area Classification drawing being prepared by Contractor.
15				Please furnish Instrumentation process data sheets for all the applicable Instruments as per Tender specification.	To be developed by Contractor
16				Flame arrestor, breather valves, Local panels, local gauge boards are mentioned as a scope of supply item in Instrumentation scope of works B215-000-16-51-SOW-8700 Rev. A, however, same are not indicated in the Tender P&ID. We understand that these items are not included in bidder's scope of supply, please confirm .	The P&ID given to the bidder is an indicative P&ID specifying minimum requirement. Development of final P&ID is in bidder's scope. In case the instruments indicated by the bidder are a part of the final approved P&ID, the scope of supply and specification for these instruments shall be as defined in instrumentation documents.

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17			Drawing no. : B215 79 41 167 1111 Rev 1; Note no 54	We understand that all required instruments / analysers in bidder's scope have been indicated in the P&ID. Please specify whether any other instruments are to be included over and above the same.	Bidder understanding is in order. However any other Instruments/items required to complete the job satisfactory shall be included in contractor scope
18				For auto-start of motor operated CW Pumps, pressure transmitters are required at individual pump discharge. However, same is not indicated in Tender P&ID document number B215 79 41 167 1111 Rev 1 Dated 28.01.2019 . Please clarify whether Pressure Transmitter at pump discharge to be included in bidder's scope.	Amendment is being issued separately
19			Tender P&ID document number B215 79 41 167 1111 Rev 1 Dated 28.01.2019 Note no 55 Vendor to provide PSV's for each SSF Compartment	Tender P&ID indicates PSV 1101,PSV 1102 on SSF i.e. 1 no PSV for each SSF. Please furnish the exact requirement.	Bidder to follow tender requirement
20			STANDARDSPECIFICATION FOR CENTRIFUGAL PUMPS (GENERAL PURPOSE) No. 6-41-0002 Rev. 4 Page 14 of 25 clause no 3.45	We understand instruments required for each Pump mechanical seal are as following. - RTD + Temperature transmitter - 1 no for each CW - Pressure gauge + pressure transmitter - 1 no for each CW - Level gauge - 1 no for each CW - Level transmitter - Flow transmitter - 1 no for each CW. Please confirm.	Bidder understanding is in order. However any other Instruments/items required to complete the job satisfactory shall be included in contractor scope
21			Vibration Switch / Transmitters	As per DOCUMENT NO. B215-000-1 7-44-SOW-8700 Rev. A Page 4 of 5 point no 19, vibration switch has been specified. However, SCOPE OF WORK (INSTRUMENTATION) COOLING TOWER PACKAGE point no 1.1.1 indicates vibration probes/transmitters and Instrumentation Job specification point no 2.29 indicates Cooling Tower fans shall be equipped with vibration transmitters with 4~20 mA output signal. Please confirm the exact requirement.	Vibration transmitter shall be considered with 4-20 mA output . Vibration switch shall not be considered.

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22			Tender P&ID document number B215 79 41 167 1111 Rev 1 Dated 28.01.2019 note no 32	As per tender P&ID we understand 1 number of HC and H2S Gas detectors per cell shall be considered. Please confirm.	Bidder to refer bidding document
23				Please furnish Key SLD for MCC.	Only incoming supply to MCC is being provided by Owner. Further, distribution is in contractor scope only.
24				Please furnish detailed system architecture of Package PLC. Please also indicate no. of signals through cabling required to be transmitted to Purchaser's DCS.	Package vendor shall develop the system architecture and same shall be reviewed during detailed engineering
25			Job specification Rev B page 4/31, clause no 2.28 transmitters shall be HART 4-20mA O/P.	The vibration transmitter model Metrix 5484E-121-0-32-0-0 is Non HART type. So we propose to consider Loop powered HART type Vibration transmitter of equivalent make. Please confirm.	Transmitter shall have 4 - 20 mA output. All requirements of vibration transmitter specified in the tender shall be complied.
26				Please specify quantity of loop powered vibration transmitters to be considered for vibration monitoring system for CW Pump / motor.	Vibration transmitter quantity shall be as per final approved P&ID.
27				Please furnish job specification, process data sheet and Schematic drawings for the ultrasonic flowmeters.	Ultrasonic flowmeter specifications has been provided . Bidder to refer to "Standard specification for ultrasonic flow meter (6-52-0011)", attached with the tender. For process datasheet amendment is being issued separately.
28				Please furnish document no 7-52-0254 titled Duct fabrication bolted construction detail and document no 7-52-0107 titled perforated tray supports and cable clamping details.	7-52-0254 is already available in the tender document.
29				Please furnish datasheet for CW Pump motor.	Refer tender document. HV/MV motor Data sheet available with tender document.

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30				Please furnish single line diagram for delivering power supply to package PLC, other 4 wire field instrumentation items pertaining to Chemical dosing vendor, 4 wire UFM, HC Gas detector annunciation panel and H2S Gas detectorannunciation panel, TOC Analyser panel etc.	Supply of package PLC (alongwith all drawings and documents , including wiring diagrams, power supply distribution diagrams etc.) shall be part of bidder's scope.
31				Since, hooter, beacon and field push button station are provided at cooling tower grade level the alarm annunciation panel shall be located adjacent to the package PLC in package PLC room. Please confirm. Also for each Gas detector 2 nos of digital outputs shall be considered for hooter/beacon and 3 nos of digital input shall be considered for the test push button stations for the package PLC. Please confirm.	Number of hooter- beacons , gas detectors , push buton stations etc. shall be as per approved P&ID. Location and wiring shall be reviewed after award.
32				Cabling upto SRR has been indicated in bidder's scope as per scope matrix point no 14. However, as per Instrumentation Job specification Rev B page 4/31 clause no 2.2A supply of serial linked cables from Customer DCS to our scope of supply package PLC, is in the scope of DCS vendor. Please confirm the exact requirement / Bidder's scope for the subject tender.	Serial cable from package PLC to owner DCS shall be in purchaser's scope.

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33				We presume that HC in water analyser indicated in return water line should be TOC Analyser. Please confirm. Also please furnish specification, Process datasheet and Vendor list of TOC Analyser.	For TOC analyser, bidder shall refer to clause no. 2.28 of job specification (instrumentation) B215-000-16-51-SP-8700 and standard specification for analyser system (6-52-0035). For analyser PDS amendment is being issued separately.
34				We understand land for labour hutment will be provided by Purchaser on free of cost basis near the plant boundary. Please confirm.	This will be provided free of cost subject to availability. However it is the contractor's responsibility for arrangement for labour hutment.
35				Kindly furnish the distance of source of construction water and construction power from the proposed cooling tower site.	Exact distance will be intimated later to the successful bidder However both will be available inside the NRL refinery premises.
36	B215-000-86-41-VL-8700		Vendor list for cooling tower package	We didn't find the vendor list for centrifugal pumps, H.T. motors, L.T. motors, etc. in the tender enquiry specifications. We request EIL to provide the complete list of vendors.	Vendor list for centrifugal pump is attached, For subvendor list of Motor refer tender document
37	B215-79-41-CWT-K18 Rev.2	Page 1 of 7	Design recirculating cooling water quality and treatment scheme	There was no specific mentioning of Chlorinator / ClO2 generator in the scope of supply of bidder. Kindly confirm whether this is included in cooling tower bidder's scope or not. If it is included, kindly provide the detailed specifications / data sheet of the same.	Because of the SS, DSS and SDSS metallurgy in the project, <u>Non Oxidizing biocides</u> shall be considered in line with clause 2.5 of B215-79-41-CWT-K18 Rev2
38	B215-79-41-CWT-K18 Rev.2	Page 1 of 7	Design recirculating cooling water quality and treatment scheme	As there was no specific mentioning of hold up volume to be considered for cooling water treatment scheme, kindly provide the same.	For calculation purpose of biocide in to cooling water, we would like to suggest following approximate method: Hold_up volume = 40 % recirculating rate of the cooling water. However please note that the exact volume shall be sum of entire piping, basin, sump & channel volumes which needs to be taken care by contractor.

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39	B215-000-79-41-PLS-01	Page 1 of 48	Job specification for surface preparation and protective coating	Painting specifications and area (inside surface & outside surface) of painting for RCC cold water basin, channel, sump etc. are not clearly specified in the tender enquiry and request to provide the painting specifications to be followed for the above and painting area.	Bidder to refer tender document
40	B215-000-17-44-SOW-8700 Rev. A	Page 2 of 5 / 2.0	The performance guarantee test run shall be conducted for 72 hours running.	Due to varying atmospheric conditions in a day, we propose to conduct the performance guarantee testing of cooling tower for two (2) hours in one day instead of 72 hours and average of these readings shall be considered for performance evaluation.	BIDDER TO FOLLOW BID REQUIREMENT
41	B215-000-16-50-SOW-4700Rev. A	Page 1 of 5 / 1.0	MCC and cabling for fan drive electric motor and pump drive motor	From the scope of supply / work (electrical), we understand that motor control centre and power & control cabling for fan drive electric motor and pump drive electric motor are not included in cooling tower bidder's scope. Kindly re-confirm this scope.	In line with Cl. 2(5) & 2(15) of Scope of work document (B215-000-16-50-SOW-8700) feeders and cables for motor rated >55kW shall be provided by Owner.
42	B215-000-17-44-SP-8700 Rev. A	Page 5 of 12 / 3.0.vi.	The thermo dynamic design should be such that the difference between temperature of outgoing mixed air and hot water shall not be less than 4°C.	We would like to know the reasons from EIL for giving this criteria in the specifications. We clarify that as a rule of best practice, we recommend to maintain outlet temperature difference above 2°C (hot water temperature minus outlet air temperature). This temperature difference has a minor influence on cooling tower efficiency and stability. At the opposite, inlet temperature difference (cold water temperature minus inlet air temperature) has a much higher influence on both efficiency and stability. we do not recommend to increase this temperature difference (not to be less than 4 deg. C.) because it would require to increase the air flow and so the fan power consumption. Kindly clarify.	Bidder to follow PDS of cooling tower datasheet (B215-167-79-DS-1801) as attached with bid document.
43	B215-000-17-44-SP-8700 Rev. A	Page 5 of 12 / 4.2	Stainless steel/ Duplex steel SS-2205 hardware	Duplex steel SS-2205 hardware is generally used in sea water application cooling tower. Being a fresh water application, we intend to consider SS 304 hardware and kindly confirm whether we can consider SS 304 hardware.	Confirmed
44	B215-000-17-44-SP-8700 Rev. A	Page 8 of 12 / 5.0	Screen shall be HDG steel/SS-316L	The material of construction of screen frame & guide shall be of HDG steel and screen mesh shall be of SS 304. Kindly clarify.	BIDDER TO FOLLOW BID REQUIREMENT
45	B215-000-17-44-SP-8700 Rev. A	Page 8 of 12 / 7.1	Fan hub shall be Hot Dip galvanized steel/SS 316L or other corrosion resistant alloy	Being a fresh water application cooling tower, we intend to consider the material of construction of the fan hub as HDG steel instead of SS 316L. Kindly clarify.	BIDDER TO FOLLOW BID REQUIREMENT
46	B215-000-17-44-SP-8700 Rev. A	Page 9 of 12 / 7.1	The bolts for fixing of the fan blades on the hub shall be SS316/ Duplex steel SS-2205.	We intend to consider the material of construction of the bolts for fixing of the fan blades on the hub shall be as SS316 instead of Duplex steel SS-2205. Kindly clarify.	confirmed.

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47	B215-000-17-44-SP-8700 Rev. A	Page 9 of 12 / 7.3	Drive shaft connecting motor and the speed reducer shall be of hot dip galvanized steel/stainless steel SS316	Being a light weight, less maintenance and long life of bearings, we intend to offer carbon fibre drive shaft which is suitable for cooling tower application especially for Pultruded FRP structure cooling tower. In all our Pultruded FRP structure cooling towers, we installed with carbon fibre drive shaft. Kindly confirm the acceptance of carbon fibre drive shaft instead of HDG carbon steel drive shaft / SS 316.	Bidder to follow bid document
48	B215-000-17-44-SP-8700 Rev. A	Page 9 of 12 / 7.3	The entire rotor assembly including drive shaft shall be dynamically balanced.	Please note that as a general practice, a) the fan blades shall be moment balanced, b) fan hub shall be dynamically balanced, c) drive shaft shall be dynamically balanced. The entire rotor assembly including drive shaft shall not be dynamically balanced.	Bidder to follow bid document
49	B215-000-17-44-SP-8700 Rev. A	Page 9 of 12 / 7.4	The motor and the speed reducers shall be supported on a single stainless steel (SS 316) frame	Being a fresh water application cooling tower, we intend to consider the material of construction of the frame for motor & speed reducers as HDG steel instead of SS 316. Kindly confirm.	BIDDER TO FOLLOW BID REQUIREMENT
50	B215-000-17-44-SP-8700 Rev. A	Page 9 of 12 / 7.8	Vibration cut off switch	Kindly confirm whether the requirement calls for vibration cut off switch as the vibration probe / transmitter vide document no. B215-000-16-51-SP-8700 Rev.B under page no.18 of 31 (page no.922 of 1500)	Bidder's understanding is correct. Vibration probe / transmitter shall be provided for switching action
51	B215-000-17-44-SP-8700 Rev. A	Page 11 of 12 / 8	Drift losses and power consumption shall be within the guaranteed limit mentioned in data sheets.	Drift loss shall not be guaranteed as we shall not carry out drift loss testing which is very expensive. Kindly clarify.	BIDDER TO FOLLOW BID REQUIREMENT
52	P&ID drg.no.1111 Rev.1		Side stream filters : 400 m3/hr. 1 W + 1 S	As per page no. 832 of 1500 vide clause no.1.1.1 & data sheet vide page no. 1107 of 1500, the capacity of side stream filters is mentioned as 440 m3/hr. Kindly confirm the design capacity of side stream filter (whether 400 m3/hr or 440 m3/hr)	Design capacity of the side stream filter to be considered as 400 m3/hr. Design basis value is correct and Side stream PDS to be corrected.
53	B215-167-79-DS-1601 Rev. A	Page 1 of 3	Pump process data sheet	As there was no specific mentioning of standards to be followed for pumps, kindly confirm whether we can consider Non API pumps with Indian standard IS 5120 or equivalent.	Bidder to refer mechanical data sheet of Pumps.
54	B215-167-79-DS-1601 Rev. A	Page 3 of 3	Pump process data sheet / If the specified materials are not available, vendor to consider superior metallurgy (like duplex stainless steel)	Being a fresh water application, in our opinion duplex stainless steel is not required. Kindly clarify and confirm the material of construction of impeller / piston / plunger	Bidder to follow MOC mentioned in the PDS

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55	B215-167-79-DS-1801 Rev. B		Cooling tower process data sheet	Kindly provide the site altitude above mean sea level and design relative humidity to be considered for cooling tower thermal design.	Bidder to refer Engineering Design basis of civil, Structural and architectural attached with bid document for relation between site elevation and mean sea level. "It is assumed that as existing TBM is used as reference level to survey with existing plant EL 100.00 which corresponds to RL. 90.40m. "Relative humidity (normal)= 85%
56	Scope drawing no.06030 Rev. C	Notes sl.no.11	Locations of battery limit piping, elevation of pipes etc. shown in the drawing are tentative. The exact location and elevations shall be finalised during detail engineering which may from the present location. CWTP package contractor to follow the final battery limit conditions without any time and cost implication	We request ABRPL / EIL to finalise the location and battery limit for mechanical, electrical, control & instrumentation items now itself to avoid any ambiguity at a later stage which will have an impact on cost and time.	Will be provided during detailed engineering
57	Scope drawing no.06030 Rev. C	Notes sl.no.20	Civil works for cooling tower chemical storage shed	There is no sketch shown for chemical storage shed in the drawing. Hence kindly provide width, length and height of chemical storage shed.	Detailed engineering is in contractor's scope.
58	Scope drawing no.06030 Rev. C	Notes sl.no.24	Approach road for CT package from existing road is in CT contractor scope.	1) Kindly confirm the length of this approach road to be considered in CT contractor's scope.	Approach road shall be as per scope drawing. Exact length shall be finalised during detailed engg.
				2) Kindly provide us the specifications for approach road.	Refer Road cross section drawing B215-000-81-41-34131
59	Scope drawing no.06030 Rev. C		WCR : 68"	1) For the pipe diameter of 68" (1700 NB), the water velocity is worked out to be 2.5 m./sec. of total circulating water flow rate of 20,000 m3/hr. Kindly confirm whether this pipe diameter is OK or will there be any increase in pipe diameter.	1)1) Pipe diameter of 68" is ok.
				2) The common header pipe shall have stepped diameter, depends on the circulating water flow rate.	2)BIDDER TO FOLLOW BID REQUIREMENT

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				3) The common return header is shown as below ground level. Kindly confirm the depth of this return header below ground level and type of protective coating to be considered.	3)Depth of header shall be 1m. Protective coating shall be as per Job Spec B215-000-79-41-PLS-01 attached with the bid document.
60	Scope drawing no.06030 Rev. C		WCR	Can consider the water velocity of 2.5 m./sec. at design water flow for hot water common return header pipe ?	Pipe diameter of 68" is ok.
61	Scope drawing no.06030 Rev. C		Hot water riser pipe	Can consider the water velocity of 2.5 m./sec. at design water flow for each cell riser pipe ?	Hot water supply pipes shall be provided as per PMS enclosed with tender document. The sizes of hot water headers will be based on the velocity at 2.0 to 2.5m/sec. and shall be got approved by EIL. The pipes shall be painted with as per shop and field painting specification enclosed with tender document.
62	Scope drawing no.06030 Rev. C		Section B-B / Sump	1) The total depth of sump is not mentioned in the drawing and please provide the same. 2) Kindly confirm whether CFD (Computational Fluid Dynamic) analysis would be required or not ?if required whether it will be in the scope of ABRPL or CT contractor.	1) Detailed engineering is in contractor's scope. 2) CFD analysis is in Contractor scope : It is not understood that the query for CFD analysis is w.r.t. which aspect. As far as pumps are concerned, CFD analysis is already taken care of during Pump design by OEM..
63	Scope drawing no.06030 Rev.C		Section B-B / Valves in suction line and delivery line	The valves shown in suction line and delivery line is mentioned as MOV. Kindly confirm whether these valves are motorised butterfly type or motorised gate type	BIDDER TO FOLLOW VMS ATTACHED WITH BID DOCUMENT
64	Scope drawing no.06030 Rev. C		Section B-B / WCS : 68"	1) The common supply header is shown as below ground level. Kindly confirm the depth of this supply header below ground level and type of protective coating to be considered. 2) Being a below ground pipe, we intend the consider the terminal point suitable for butt welding instead of flanges.	1)Depth of header shall be 1m. Protective coating shall be as per Job Spec B215-000-79-41-PLS-01 attached with the bid document. 2) BIDDER TO FOLLOW BID REQUIREMENT
65	Scope drawing no.06030 Rev. C		Section A-A	The invert level of cold water basin is not mentioned in the drawing and kindly provide the same. Please note that the cold water basin depth shall be calculated as per sl.no.23 of notes (10 minutes hold up capacity between minimum and normal water level in cold water basin including channel	Detailed engineering is in contractor's scope.
66	Arrangement drawing		Tower dimensions : 18 mtr. width x 108 mtr. long	1) Kindly confirm whether we can consider the cold water basin width of 20.40 mtr.	1)Detailed engineering is in contractor's scope

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			Cell dimensions : 18 mtr. width x 18 mtr. long	2) The length of each cell is mentioned as 18 mtr. Kindly confirm whether this is the maximum length available or can it be increased ?	2)Bidder to follow bid document
67	Arrangement drawing		Pump house shed	1) Kindly provide the pump house shed drawing and specify the dimensions of pump house (width x length x over all height). 2) we understand from the specifications that the pump house shed shall be made out of structural steel shed. Kindly confirm whether our understanding is correct. 3) Whether the sump and pump house shed are combined one or pump house shed is a separate structure.	1)Detailed engineering is in contractor's scope 2)Detailed engineering is in contractor's scope 3)Bidder to follow bid document
68	Arrangement drawing		WCS : 68"	For the pipe diameter of 68" (1700 NB), the water velocity is worked out to be 2.5 m./sec. of total circulating water flow rate of 20,000 m3/hr. Kindly confirm whether this pipe diameter is OK or will there be any increase in pipe diameter.	Pipe diameter of 68" is ok.
69	Arrangement drawing		RCC pavement	1) What is the width of RCC pavement to be considered at periphery of cooling tower. 2) Whether RCC pavement is to be done for the entire area within the battery limit or only around cooling tower? If it is only around cooling tower, what is the width of pavement ? 3) What is the type and grade of RCC pavement ?	Bidder to follow bid document Bidder to follow bid document Pavement Details shall be as per standard 7-65-0404 and scope of work B215-000-81-41-SOW-8700 attached with the bid document
70	Arrangement drawing		Size of Operator cum PLC room / MCC : 15 mtr. x 20 mtr.	1) What is the height of Operator cum PLC room ? 2) Kindly confirm whether we have to consider brick walls or RCC walls for this room.	Height of operator room shall be as per applicable codes, NBC. and equipment entry RCC framed bldg. with brick infills
71	Arrangement drawing		Size of CWTP : 15 mtr. x 15 mtr.	Kindly provide the CWTP room drawing and specify the dimensions of room (width x length x over all height).	Detailed engineering is in contractor's scope and follow bid requirements
72	Arrangement drawing		Co-ordinates of battery limit	As we didn't find the co-ordinates of battery limit (on transverse and longitudinal), kindly provide the same for better clarity and understanding.	Shall be provided during detailed engineering to successive bidder.
73	Arrangement drawing		Interconnection upto nearest existing drain.	As we didn't find the co-ordinates of existing drain, kindly provide the same for better clarity and understanding.	Refer Scope Drawing B215-000-17-44-06030.
II	DETAILED NIT				
74	1 of 6	Time schedule for completion	15 Months from the date of issue of Letter of Acceptance (LOA).	Considering the quantum of work involved in the following major activities, we are proposing the completion period as twenty four (24) months from the date of techno-commercially clear LOA.	Follow tender requirement

S.No.	Reference		Description	Query	Clarification
	Section	Cl.no/Page.No			
				<ul style="list-style-type: none"> - Basic design - Detail engineering - Preparation and submission of drawings/documents to ABRPL / EIL for approval. - Approval of drawings / documents by ABRPL / EIL. - Approval of QAP by ABRPL / EIL. - Obtaining quotations from sub vendors as per approved QAP. - Placement of order for raw materials and bought out items. - Approval of sub vendor's drawings/documents by ABRPL / EIL - Manufacturing of components. - Inspection by us and ABRPL / EIL. - Packing and transportation of components. - Civil construction works at site - Erection, commissioning and performance guarantee testing at site. <p>We have assumed that ABRPL / EIL shall review and provide us the approval of the drawings / documents within five (5) days of submission. Kindly clarify.</p>	
75	2 of 6	Last date of Receipt of Bidder's Queries for Pre-Bid Meeting	On 01.04.2019	There is a very short notice period between the tender release date and pre-bid meeting date and we could able to download the tender documents on 29.03.2019. Considering the volume of specifications and nature of scope, we are submitting this first set of pre-bid queries. We should be allowed to send further queries and request ABRPL / EIL to send the clarifications to our further queries before submission of bids.	Last date for submission of queries extended till 05-Apr-2019.If any BD extension shallbe informed separately
76	2 of 6	Last Date and time of Online submission of Bids (Bid due date)	Up to 1200 Hrs. (IST) on 16.04.2019	Considering the quantum of work involved in preparation of bids as per the tender enquiry, site visit and pre-bid clarifications, we request ABRPL/EIL to extend the submission of bid upto 30.05.2019.	Follow tender requirement
77	3 of 6	For Experience Criteria (Technical)	One Year Operation Certificate from Owner or main contractor. One year operation certificate from main contractor shall be supplemented by Owner certificate to the main contractor establishing one year of operation.	We shall submit one year operation certificate from main contractor (from whom a contract / order awarded to us) only and it would not be possible for us to obtain one year operation certificate from Owner issued to the main contractor. Based on our past experience in this type of clause, we are raising this query and request ABRPL / EIL not to insist one year operation certificate from Owner issued to the main contractor.	Not acceptable, Bidder to follow bid requirements

S.No.	Reference		Description	Query	Clarification
	Section	Cl.no/Page.No			
78	4 of 6	Earnest Money Deposit (EMD)	Bidders are required to submit the Original EMD in OWNER office before the Bid Due date and time to the following address : Assam Bio Refinery Pvt. Limited, Post Box No. 003, Post office: N.R. Complex, District: Golaghat, Pin: 785699, Assam (India).	We shall upload the scanned copy of EMD at the time of submission of bids. However we should be allowed to submit the original EMD in Owner's office within a week's time from the date of opening of techno-commercial unpriced bid.	Noted
	COMMERCIAL				
79	06. GCC	Page 58 of 85	The prices / rates quoted by Contractor shall remain firm till the issue of final certificate and shall not be subject to escalation.	Considering the completion period and price fluctuations in raw materials, bought out items and labours etc., we request ABRPL to consider the price variation clause.	Not Acceptable. Bidder to follow the provisions of Bidding document.
80	08. SCC	Page 30 of 125	Construction power :Without prejudice the provisions of clause No. 18.1 to 18.5 above, subject to availability, construction power shall be supplied by OWNER on chargeable basis at single point near the battery limit. Power at single point shall be provided free of cost.	We request ABRPL to provide the construction power and power required for lighting and our site office / stores are free of cost and confirm the same. In case of chargeable basis, what is the tariff per kWhr.	Construction Power shall be provided by Owner free of Cost.

S.No.	Reference		Description	Query	Clarification
	Section	Cl.no/Page.No			
81	08. SCC	Page 121 of 125	<p>Pursuant to clause no 22.10.4 of SCC the CONTRACTOR shall carry out the various tests as enumerated in the bidding document and as per direction of Engineer-in-charge either on field or outside laboratories concerning the execution of work and supply of the material by CONTRACTOR. All the expenses shall be borne by the CONTRACTOR and shall be considered as included in the quoted Lumpsum price. The inspection shall be done by following :</p> <p>a) Any third party Inspection (TPI) agency for all supply items among :</p> <p>i. Lloyds Register of Industrial Services (LRIS)</p> <p>ii. Bureau Veritas (BV)</p> <p>iii. Det Norske Veritas (DNV)</p> <p>iv. Certification Engineers International Ltd. (CEIL)</p> <p>v. TUV</p>	As the number of inspection visits / stages cannot be finalised at this stage, we request ABRPL to bear all the expenses of Third party Inspection (TPI) agencies towards inspection and we shall not consider these expenses in our quoted price. Kindly clarify.	Not Acceptable. Bidder to follow the provisions of Bidding document.
	GENERAL				
82			Labour colony	Kindly confirm whether ABRPL can provide an area outside the plant at free of cost to build our labour colony.	As mentioned above
83			Excess materials	Being a lumpsum turnkey project, generally we shall supply additional quantity for few components and we should be allowed to take back the additional quantity after completion of the project. Kindly clarify.	Noted