

SCHEDULE OF PRE-BID CLARIFICATION

All clarification from the Technical Specification shall be filled in by the BIDDER clause by clause in this format only.

VOLUME	SECTION	CLAUSE NO.	PAGE NO.	SPECIFICATION REQUIREMENT	CLARIFICATION	BHEL REPLY/ADDITIONAL CLARIFICATION
COMMERCIAL QUERIES:						
GENERAL	-	-	-	-	Please confirm all Civil works is not envisaged in this contract.	Civil desin and construction works are excluded from bidder's scope however minor civil work as defined in technical specification shall be in bidder's scope.
PROCESS QUERIES:						
E-55752017TECH SPEC DM PLANT_BHADRADRI	I	2.SCOPE OF SUPPLY (MECHANICAL)	8/441	A centralized sampling rack for the DM Plant shall be provided and this sampling rack shall be installed in the PLC room of DM plant.	Kindly confirm the distance for which bidder needs to consider sampling rack.	Bidder to refer the plot plan attached with tender specification for location of dm plant(Indetified under sr no 2.4).Location of the PLC room shall be with in this identified area and shall be finalised during detail enginnering , Hence bidder to consider distances for the same accodgngly based on plot plan attached with tender specification.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I			P&ID	Kindly confirm the distance between DM water storage tank to UF system.	Bidder to refer the plot plan attached with tender specification for location of dm plant(Indetified under sr no 2.4) and location of DM water storage tank is identified under sr. no. 2.13 .Location of UF system shall be with in this DM plant identified area and shall be finalised during detail enginnering ,Hence bidder to consider distances for the same accodgngly based on plot plan attached with tender specification.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I			P&ID	Kindly confirm the distance between DM regneration pump to MB system.	Bidder to refer the plot plan attached with tender specification for location of dm plant(Indetified under sr no 2.4) and location of DM water storage tank is identified under sr. no. 2.13 .Location of DM regeneration pump and Mixed bed shall be with in this DM plant identified area and exact location shall be finalised during detail enginnering , Hence bidder to consider distances for the same accodgngly based on plot plan attached with tender specification.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I			P&ID	Kindly confirm the distance from Clarified water storage tank to PSF inlet	Bidder to refer the tender specification section IA clause 80 b) page 10 of 441 for the same.

E-55752017TECH SPEC DM PLANT_BHADRADRI	I			P&ID	Kindly confirm the distance from filtered water overhead tank to PSF/ACF	Bidder to refer the plot plan attached with tender specification for location of dm plant(Identified under sr no 2.4) and location of filtered water overhead tank is on the top of control room of DM plant and location of PSF/ACF is also with in this DM plant area and shall be finalised during detail engineering .Hence bidder to consider distances for the same accordingly based on plot plan attached with tender specification.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I			P&ID	Kindly confirm the recirculation piping from DM water regeneration pumps to each DM Water storage tanks.	Bidder to refer the plot plan attached with tender specification for location of dm plant(Identified under sr no 2.4) and location of DM water storage tank is identified under sr. no. 2.13 .Location of DM regeneration pump shall be with in this DM plant identified area and exact location shall be finalised during detail engineering , Hence bidder to consider distances for the recirculation piping accordingly from DM water regeneration pumps to each DM Water storage tanks.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I			P&ID	Kindly confirm the distance from MB to UF feed tank	Bidder to refer the plot plan attached with tender specification for location of dm plant(Identified under sr no 2.4) and location of mixed bed & location of UF feed tank shall be with in this DM plant area and shall be finalised during detail engineering .Hence bidder to consider distances for the same accordingly based on plot plan attached with tender specification.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I		62/441	Mandatory spares	Please confirm whether we need to supply 100% spares for resins.	Bidder to consider the mandatory spares list to supplied for DM plant as enclosed with technical specification.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I	GENERAL TECHNICAL REQUIREMENTS	93/441	Effective guards and fences must be provided to prevent injury to operators through accident or malpractice	Kindly confirm whether the same needs to be provided by bidder.	Bidder to follow tender specification.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I	2.SCOPE OF SUPPLY (MECHANICAL)	11/441	Arrangement of all instruments, lab facilities, reagents, monitoring gadgets for monitoring, precommissioning, carrying out trial run, commissioning, PG test & plant hand over	Kindly provide us the list of lab equipments,reagents if any needs to be provided. Also confirm whether bidder need to consider set up lab in scope of bidding process.	Lab equipments , reagent if any required for DM plant for monitoring, precommissioning, carrying out trial run, commissioning, PG test & plant hand is to be arranged by bidder. Further bidder need not to consider for set up of chemical lab in their scope.

E-55752017TECH SPEC DM PLANT_BHADRADRI	I	Datasheets	238/441	The bed depth should be minimum 1200 mm and at least 75% free board shall be provided over the bed depth.	As per datasheet pg 167 of 441 it is found that 1000mm bed depth (excluding support material)is mentioned whereas in pg 238 it is mentioned as 1200 mm.Kindly confirm the bed depth for activated carbon media.	For Activated carbon filter: The bed depth should be minimum 1200 mm and at least 75% free board shall be provided over the bed depth. Bidder to consider the same.
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E-55752017TECH SPEC DM PLANT_BHADRADRI	I	4.8 DRAIN NEUTRALISING SYSTEM:	240/441	One (1) number neutralizing pit with two compartments shall be provided. Provision shall be made to dose lime for pH correction. Suitable arrangement to avoid manual handling of lime shall be made in the lime dosing system.	Lime dosing system is not found in P&ID .Kindly confirm whther we need to consider the same.	Bidder to refer & follow the tender P&ID for the same where acid and alkali measuring tanks for Npit shall be provided for the neutralisation arragement of N-pit. The same is in bidder's scope.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I	4.8 DRAIN NEUTRALISING SYSTEM:	240/441	N-PIT	Kindly confirm whether we need to consider diffuser arrangement in N-Pit in bidder scope.	Bidder's understanding is correct.Diffuser arrangement of N-Pit is also in bidder scope.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I	4.8 DRAIN NEUTRALISING SYSTEM:	240/441	Waste water from sump shall be led into a gravity trench suitably lined and leading to neutralizing pit.	Kindly confirm whether trench should be considered in bidder scope.	Civil work related to trench in DM plant area is not in bidder's scope.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I	4.15 LAYOUT CONSIDERATION	243/441	Further bulk acid & alkali storage tanks along with respective unloading pumps shall be located outdoor in open area with a dyke wall all-around of 300 mm.	Kindly confirm that dyke wall will be in client scope.	Civil work related to dyke wall around bulk acid & alkali storage tanks along with respective unloading pumps provided in DM plant area is not in bidder's scope.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I			vales-Diaphragm	Kindly confirm the type of diaphragm valves to be considered whether single acting or double acting.	Bidder to note that type of diaphragm valves (Single acting or double acting) shall be decided during detail engineering based on process requirement.The same shall be in bidder's scope.
E-55752017TECH SPEC DM PLANT_BHADRADRI	I			Piping	Kindly confirm whether we need to consider SS316 piping for UF system.	Bidder to follow the datasheet -A attached along with tender specification for piping of UF system.
General	-	-	-	-	Please confirm whether pipe rack or pedestal shall be provided by BHEL for the piping from Pump house in the clarified water storage tank to DM plant.	Bidder to route this piping on pedestals provided by BHEL infront of this area and further on pipe rack which is going all along with parallel to DM plant area. Further after pipe rack this piping with in DM plant area shall be finalised during detail engineering which shall be laid on pedestal (Provided by BHEL). However all auxiliary steel structure (U clamps, hangers, nuts, bolts, angle, channels, insert plates etc.) for fixing pipes on pedestal or racks for this piping shall be in bidder's scope. Pipe rack shall be in BHEL scope.
General	-	-	-	-	Please confirm whether chemical guarantee is also there in the bid evaluation.	Bidder to refer section I-A, ANNEXURE -III of the technical specification for the same.
ELECTRICAL QUERIES:						
ELECTRICAL & INSTRUMENTATION QUERIES:						
Technical Specification for DM Plant			Pg 12/441	Exclusions: 10.4 Air conditioning, ventilation & fire fighting facilities.		Bidder to note that Air conditioning

Technical Specification for DM Plant			Pg 112/441	h) Necessary Air Conditioning shall be provided for Central Control room, Control Equipment Room and SWAS room etc.	As both the statements are contradictory, kindly confirm whether the Bidder should consider A/C for the Control Room	Bidder to note that Air Conditioning, ventilation & fire fighting facilities for DM plant is not in bidder's scope.
Technical Specification for DM Plant	Annexure II	D) Control Room	Pg 112/441	g) The Control Room lighting shall be designed to provide a glare free uniform illumination. The level of illumination shall be minimum 400 LUX.	Kindly confirm whether the Bidder should provide lighting in the Control Room	Bidder to refer Electrical scope between BHEL and Vendor S no 9, lighting shall be in BHEL scope.
Technical Specification for DM Plant	ELECTRICAL SCOPE BETWEEN BHEL AND VENDOR		Pg 196/441		The bidder has understood that the following cables does not come under the scope of Bidder 1) Cables between MCC and PLC Kindly confirm	Bidder to Refer Electrical scope between BHEL and Vendor S no. 3, all types of power, control and screened control cables shall be under BHEL scope.
Technical Specification for DM Plant	section D		Pg 328/441	1) Remote IO Panel - Yes 2) Backup desk- No	The bidder has understood that the following 1) Remote IO Panel Not required 2) Backup desk is required e asper PLC CONFIGURATION Diagram, Kindly confirm	RIO Panel is mentioned in PLC datasheet and Vendor shall provide the same. Backup panel shall be provided as per specification.
Technical Specification for DM Plant		Instrument Data sheet	Pg 386/441	Density /Concentration meter is 4 to 20mA out put Transmitter	In P&ID Density /Concentration meter Indicates as Indicator, Please confirm Density meter is Indicator or Transmitter	As shown in P&ID, It is Density Indicator.
Technical Specification for DM Plant		Instrument Data sheet	Pg 357/441	Analyzer Datasheet	Analyzer Datasheet not available, PLEASE Provide	Bidder to refer ANNEXURE -I for different analysers specification as enclosed here with the pre -bid reply for their adherence.Bidder to follow the same.
Technical Specification for DM Plant			Pg 221/441	Back up control panel	Please provide the Back up control panel detailed specification	Back up Panel shall comprise a window annunciator, MIMIC and Start /Stop push buttons for the drives for which local operation is required (Quantity shall be finalized during detailed engineering stage). Further for Indication /alarm bidder to refer the tender specification pages 236 to 238 of 441. For back up panel specification bidder to refer section II C clause 2.03.00 page 400&401 of 441 of tender technical specification.
Technical Specification for DM Plant			Pg 221/441	LVS	Please provide the LVS system detailed specification	Please refer "C&I Specification, LCP & Junction Box Specification, 3.00.00"

ADDITIONAL CLARIFICATION POINTS BY BHEL TO BE CONSIDERED BY ALL BIDDERS OF DM PLANT

						Bidder to note that Valve indicated in the DM plant P&ID, at the inlet line of degasser tower shall be Motorized butterfly type control valve in place of pneumatic on/ off type diaphragm valve. The same shall be provided with manual butterfly isolation valves in upstream and downstream. In addition, one number on-off type pneumatic diaphragm /butterfly type by pass valve shall also be provided by bidder. The same shall be applicable for all three streams of DM plant and shall be in bidder's scope of supply.
						Bidder to provide 5 m capillary type PG and DPG with remote diaphragm seal for all PG & DPG provided for chemical application of DM plant. The same shall be in bidder's scope of supply.
						Bidder to provide 1 no. conductivity analyser at individual Mixed bed rinse outlet line for measurement of conductivity. Hence total 3 nos. of conductivity analysers shall be provided by bidder. The same shall be in bidder's scope of supply.
						Bidder to provide 1 no. cation conductivity analyser at individual Mixed bed outlet line for measurement of cation conductivity. Hence total 3 nos. of cation conductivity analysers shall be provided by bidder. The same shall be in bidder's scope of supply.
						Bidder to refer ANNEXURE -II, sub-vendor list applicable C&I items as enclosed here with the pre -bid reply for their adherence. Bidder to follow the same.