MANGALORE REFINERY & PETROCHEMICALS LTD., MANGALORE

MATERIALS DEPARTMENT

PRE BID MINUTES

25.04.2019

PUBLIC TENDER NO: **3600000973** for **Supply Installation & Commissioning of Mass Flow Meters and Batch Controllers for Hydrocarbon Liquids.. . E- Open Tender basis.**

Sub: Clarifications to above tender –

1. With reference to above, PR was raised by Instrumentation Department & above Tender was floated on Open Tender basis vide Approval Note dated 14.03.2019
2. Pre-Bid Meeting was held on 10.04.2019. During Pre-Bid Meeting 02 vendor have participated.

1. Queries raised by bidder during pre-bid meeting-

Sr. No.	Document	Clause No	Description	Queries/Deviation by bidder	MRPL's Reply
1	Data sheet	All tags	Sl 7-Connection size: 8in & 12in	We request MRPL to allow us to offer MFM along with reducer/expander to meet 8in & 12in data sheet criteria. Also please let us know MOC & Schedule of reducer/expander as we are unable to find these details from Line code A10A & B4A code.	Necessary reducers/ expanders shall be arranged by MRPL.
2	Data sheet	23 of 23	Tag MFM-95620, SL 38 Specific Gravity - 0.72 to 0.777	For this tag alone, we request MRPL to check if we can consider Specific Gravity as 0.650 to 0.777 considering operating temperature of 40 DegC	a) Specific gravity to be considered as "0.72 ~ 0.777" at 15°C as per data sheet.
3	Data sheet	23 of 23	Tag MFM-95620, SL 40 1) Pressure drop at Normal Flow 0.6 kg/cm2 2) Pressure drop at Max Flow 1 kg/cm2	For this tag alone, we request MRPL to allow us 1) Pressure drop at Normal Flow 0.7 kg/cm2 2) Pressure drop at Max Flow 1.2 kg/cm2	For Tag MFM95620 Sl. No. 40 of the data sheet shall be read as: a) Pressure drop at Normal Flow to be considered as 0.5 kg/cm2. b) Pressure drop at Max Flow to be considered as 1.0 kg/cm2.
4	Data sheet	All tags	Sl no 8 - RS485	We understand RS485 output from mass flow transmitter is required & needs to be connected to Batch controller unit.	As per Batch Controller data sheet, Batch Controller shall read MFM data over RS485 serial link & shall communicate to DCS through redundant RS485 serial links or TCP/IP.

5	Data sheet	All tags	Sl no 27 - Configuration thru Keypad & HART communicator	We also understand HART protocol is required in mass flow transmitter for site configuration from HART communicator	Since Mass Flow Meters are software lock enabled & configuration parameters can only be accessed by OEM & hence HART communication is not mandatory.
6	Data sheet	All tags	Sl 20 - Input Temperature 4-20mA & Additional 4-20mA	Both Input can be connected thru HART polling	Noted & Acceptable.
7	Data sheet	All tags	Sl 42 Type W&M	We shall provide W&M approved flow meter & type test certificate shall be provided for review. However we request MRPL to consider Local W&M stamping at site in their scope.	Noted. Bidder shall supply W&M approved Mass Flow Meter & shall arrange to provide one time W&M stamping from Indian Legal Metrology after commissioning of each of the MFMs excluding spare sensors
8	Data sheet	All tags	Sl no 45, Radiography-all welded parts	we understand Radiography test needs to be performed on 100% wetted welds including Process connection & measuring tubes side	Yes. Radiography test needs to be performed on 100% wetted welds including Process connection & measuring tubes side.
9	Data sheet	All tags	Sl 30-20mtrs interconnecting cable	We understand the transmitter needs to be remote type for main supply & for spare supply for better user witting accessibility.	MFM Transmitter shall be either integral or remote. If transmitter is remote then only interconnecting cable needs to be supplied.
10	Data sheet	All tags	SL 16 - Flange material SS316L	Flange material shall be SS316/316L.	Noted & Acceptable.
11	Data sheet	All tags	SL 21 - Load resistance 650 ohms	We request MRPL to accept our standard Maximum load limit of 820 ohms	Noted & Acceptable.
12	Data sheet	All tags	SL 29 Filter & Mesh wire	We request MRPL to exclude this as this not Applicable to MFM	Noted & Acceptable.

13	Data sheet	All tags	SL 43 FCRI calibration	Please let us know if MRPL want to witness FCRI volume calibration	Yes. MFMs volume calibration at FCRI shall be witnessed by MRPL.
14	Data sheet	All tags	SL 43 FCRI calibration Clause 14 - FAT	Please let us know if MRPL will issue Dispatch clearance immediately after FCRI calibration OR MRPL want to come to our Factory in Navi Mumbai after witness of FCRI for checking MFM to BCU functionality	FAT shall be offered by Bidder.
15	Data sheet	10 of 23	SPARES	We understand MRPL need separate 1 full sensors for item code 1000114272 1 full sensor for item code 1000117616 1 Full transmitter for item code 1000118003 1 full Batch controller unit fot item code 1000118859	Yes. These Items shall be supplied as mandatory spares.
16	Data sheet	10 of 23	SPARES	Please let us if MRPL wants FCRI calibration for both spare sensors under item code 1000114272 & 1000117616 If Yes, we will utilize any transmitter during FCRI calibration	FCRI calibration required for spare sensor also.
17	Data sheet	All tags	Min flow mentioned as 0 m3/hr	We request MRPL to allow us to consider min flow as 20% of Max flow rate as data sheet specifies as 0 m3/hr	Min flow rate shall be considered as "0" m3/hr.
18	GPC	12 of 55	39. TERMS OF PAYMENT: 1.1. Supply a. 80% of the supplied item amount along with 100% packing, forwarding, taxes, duties and freight as applicable shall be paid on pro-rata basis against receipt & acceptance of material by MRPL. b. Balance 20% of the supplied item amount shall be paid on pro-rata basis after Completion of commissioning & final acceptance as certified by EIC and submission of 5% of basic order value in the form of (BG-S/P)/DD	We request MRPL to consider (a) 90% & (b) 10% we also request MRPL to put a cap of 15 days for both (a) & (b) supply clause	1.1. Supply a. 80% of the supplied item amount along with 100% packing, forwarding, taxes, duties and freight as applicable shall be paid on pro-rata basis **with in 15 days** against receipt & acceptance of material by MRPL. b. Balance 20% of the supplied item amount shall be paid on pro-rata basis with in 15 days after Completion of commissioning & final acceptance as certified by EIC and submission of 5% of basic order value in the

			towards warranty Period.		form of (BG-S/P)/DD towards warranty Period.
19	GPC	12 of 55	1.2. Service (Installation & Commissioning) 100% of the service amount along with all taxes & duties shall be released after Completion of job & final acceptance as certified by EIC & against submission of 5% of basic order value in the form of (BG-S/P)/DD towards warranty Period.	We request MRPL to consider 15 days from completion certificate	100% of the service amount along with all taxes & duties shall be released **with in 15 days** after Completion of job & final acceptance as certified by EIC & against submission of 5% of basic order value in the form of (BG-S/P)/DD towards warranty Period.
20	ITB, 6	3 of 23	through post (in case of manual tender)/ uploaded E Tender	Can we also submit the tender manually	No, it's a E-tender. Please uploaded in the EPS portal (https://www.tenderwizard.com/MRPL
21	BEC	7 of 23	Overall L1	Kindly confirm if this tender is overall basis or line wise evaluation.	Please refer BEC-2. MRPL intends to order Techno-commercially accepted bids on **Overall L1 basis,** i.e. lowest landed cost to MRPL. The bidder shall quote for all the items as per the tender
22		22 of 23	Batch Controller	We request MRPL to provide us approved batch controller makes	Batch controllers shall be supplied as per tender specifications in line with Pre bid queries replied by MRPL.
23			Extension of Bid closing date.	we request to you to kindly extend closing date till 11th May.	Bid closing date has been extended upto 08.05.2019 from 29.04.2019.

2.Queries raised by bidder during pre-bid meeting-

Sr. No.	Document	Clause No	Description	Queries/Deviation by bidder	MRPL's Reply
1	Pre-Qualification Criteria (PQC) Sr. No. 3	7 of 23	Bidder shall submit proven track record(PTR) from end user for Mass flow meter & batch controller of their make proposed for this tender, which were supplied either directly or through their authorized system integrator/ authorized dealer and must have	'-We request MRPL to accept PTR with minimum of 1 year (8000 hrs) for satisfactory performance from the date of commissioning. This criteria has been widely accepted in all PSUs and we can share the Performance Letter of Projects wherein both the Mass flow meters & Batch Controller Units were supplied & commissioned by E+H.	First Option is not acceptable. 2 years performance certificate from the end user for the offered models is acceptable.

			been working satisfactorily for minimum of two years from the date of commissioning during last Seven years. Bidder to submit satisfactory performance certificate from the end user.	-In case the above is not acceptable and MRPL requires PTR with minimum period of 2 years only, then we kindly request that Performance Letter from the OEM of Batch Controller Unit for their executed Projects be accepted by M/s. MRPL.	
2	Mass Flow meter datasheet Sr. No. 18,19 & 20		'Frequency Output, Serial Output & Current Input	The typical I/O configuration of the offered flowmeter shall be Frequency output: Active Single Pulse Frequency 10 kHz, Serial Output : Modbus RS485 Current Input - 4-20 mA for Temperature compensation. Pressure compensation shall not be simultaneously possible along with the above 3 I/Os, however, we can offer a Spare 4-20 mA Input Card which can be used for Pressure Compensation but replaceable with above Pulse Frequency Card. We request MRPL to kindly accept this.	Noted & Acceptable.
3	Batch Controller Datasheet		This query is related to Serial Input Sr. no .8 & Data Communication capability Sr. No. 13	A typical Batch Controller shall have 2 RS485 serial link. The proposed configuration shall be Batch Controller reading data from MFM over Pulse Input & 2 nos. RS485 Serial Link shall be used as redundant communication. We request MRPL to kindly accept this.	As per Batch Controller data sheet, Batch Controller shall read MFM data over RS485 serial link & shall communicate to DCS through redundant RS485 serial links or TCP/IP.
4	FT70616	Pressure Drop	Pressure Drop	At max. limit of Specific Gravity (0.85) & max. viscosity (2 cSt) we derive pressure drop of 1.09 kg/cm2 at max. flowrate. We request MRPL to accept this minor deviation from Tender specifications. We qualify the pressure drop criteria of 1 kg/cm2 @ Sp. gravity 0f 0.75 & Viscosity of 1.25 cSt. We request MRPL to provide the Density & Viscosity values	Density & Viscosity values at operating Temperature i.e. 40°C are "0.775 and 1.35 cst" respectively. a) Pressure drop at Normal Flow to be considered as 0.5 kg/cm2. b) Pressure drop at Max Flow to be considered as 1.0 kg/cm2.

				at operating Temperature i.e. 40 Deg C. We shall check with these values if the meter qualifies for 1 kg/cm2 pressure drop @ max. flow.	
5	Mass Flow meter datasheet Sr. No. 27		Configuration: Through Local Keypad & HART Communicator	Our configuration shall be possible through display keypads only since we are providing digital output as MODBUS RS485. Also, since transmitters of custody transfer meters cannot be opened or unlocked once it is sealed by Weights & Measures stamping, a HART Communicator would not be of any use to configure the same.	Since Mass Flow Meters are software lock enabled & configuration parameters can only be accessed by OEM & hence HART communication is not mandatory.
6	Mass Flow meter datasheet		End Connection	We understand that the necessary reducer/expander for meeting the line size shall be in Bidder's scope. Typically reducer expander assemblies are as per Pipeline Material i.e. CS for code A1A. Kindly confirm the same.	Necessary reducers/ expanders shall be arranged by MRPL.

NB: Please seal & sign the document and include the same in your offer.