
	<p style="text-align: center;">MRPL Marketing Terminal Project at Devangonhi, Bangalore Marketing Infrastructure Projects, MRPL.</p> <hr/> <p style="text-align: center;">LSTK-A PACKAGE : TANKAGE AND ASSOCIATED CIVIL, MECHANICAL, PIPING, ELECTRICAL, INSTRUMENTATION & FIRE FIGHTING WORKS ADDENDUM 03</p>	
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ADDENDUM 03

To

MRPL Tender No. 3200000495 dated 26.03.2021

**TENDER FOR: TANKAGE AND ASSOCIATED CIVIL, MECHANICAL, PIPING, ELECTRICAL, INSTRUMENTATION & FIRE FIGHTING WORKS
(LSTK-A PACKAGE) MRPL MARKETING TERMINAL PROJECT
AT DEVANGONTHI, BANGALORE MARKETING INFRASTRUCTURE PROJECTS, MRPL**

With reference to the above tender and subsequent Addendum 1 and Addendum 2 Bidders are requested to note the following:

The items, conditions, specification and stipulations of the Bidding Documents are modified to the extent indicated as follows

- a. **Annexure 01 – Commercial Addendum.**
- b. **Annexure 02 – Technical Clarification.**

The implications of the same, elsewhere in the tender shall be taken care of appropriately by the bidders. All other terms and conditions, stipulations and specifications of tender shall remain unaltered.

Note:

Bidders shall upload the copy of these documents along with the technical- commercial bid, **Digitally Signed**, as a token of having read and understood the same.



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ANNEXURE 01 – COMMERCIAL ADDENDUM

Sl. No.	Volume	Section No./Clause No.	Page No.	Existing Tender Clause	Addition / Deletion / Modification
1.	Annexure 01– Commercial Addendum	Addendum 2 / SL no. 01	02 of 181	Last Date and time of Online submission of Bids Up to 1500 Hrs. (IST) on 11.05.2021	<u>Modification</u> Last Date and time of Online submission of Bids up to 1500 Hrs. (IST) on 28.05.2021
2.	Annexure 01– Commercial Addendum	Addendum 2 / SL no. 02	02 of 181	Online Opening of Techno-commercial Unpriced Bid at 1530 Hrs. (IST) on 11.05.2021	<u>Modification</u> Online Opening of Techno-commercial Unpriced Bid at 1530 Hrs. (IST) on 28.05.2021



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Annexure 02 – Technical Clarification.

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1.	LSTK-A PACKAGE: TANKAGE AND ASSOCIATED CIVIL, MECHANICAL, PIPING, ELECTRICAL, INSTRUMENTATION & FIRE FIGHTING WORKS ADDENDUM 02 Page 23 of 181	2.1.4	2.1.4 The CONTRACTOR shall check the technical portion of the Bidding Document for its accuracy to meet the proposed guarantees and in case of deficiency shall inform PMC/OWNER immediately and take necessary rectification action. Further, if any changes are required in sizing of piping, pumps capacity, Diesel engines, Firefighting/protection system etc., to meet the guarantees for achieving the desired throughput of the Marketing Terminal as defined elsewhere in the Bidding Document then CONTRACTOR shall inform the PMC/OWNER immediately & rectify the same at no extra cost to owner or extension of time	Bidder understands that dimensions (height & dia) of storage tanks, truck loading pump capacities mentioned in datasheets are firmed up and final, based on required pumpable volume mentioned in tank datasheets and terminal throughput mentioned in process design basis (2005-GEN-G-DOC-9125). Hence, bidder does not need to do verification of the same (Tank size, pump capacity, throughput calculation). Kindly confirm bidder's understanding.	Bidder understanding on the dimensions of storage tanks & Pumpable volume, capacities of the truck loading pumps and Throughput is correct. However, bidder shall check, update/confirm and ensure that the pump head and line sizes required based on the actual plot plan and pipe routing drawings updated/developed during detailed engineering shall meet the terminal's throughput/hydraulic guarantee. Also bidder shall ensure that the area and volume of each tank dykes meet the latest OISD requirements
2.	Page 3143 of 3638	-	Peripheral and center circulation vents for IFR tanks	As per API 650 Annex H Clause no. H.5.2.2, internal floating roof tanks are required to be provided with peripheral	Bidder to meet the requirement of API 650 Annex H.5.2.2 for internal floating roof vents.



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				and center circulation vents which are not indicated in datasheet MS storage tanks. Pls confirm the requirement for the same.	
3.	-	-	Nitrogen (as utility) requirement for terminal	Bidder understands that there is no requirement of Nitrogen for flushing/purging or any other purpose. If required, it will be in client's scope. Pls confirm.	Bidder understanding is incorrect. Though there is no requirement of Nitrogen during the normal operation of the terminal, the nitrogen required for flushing/purging during the commissioning/start-up, if any shall be in Bidder's scope
4.	20005-GEN-S-SOW-2015, PG No. 1436 of 3638	20.2.7	F & G system for packages	Bidder understand that F & G instruments for packages like (gas detectors, MCP, hooter beacon etc.) will be provided as per mapping study by others for packages.	Bidder understanding of the scope for F & G detectors is correct.
5.	20005-GEN-S-SOW-2015, PG No. 1436 of 3638	20.2.7	I/O's for the packages	Vapor Recovery Unit & Instruments air compressor will have its own dedicated system for integration with main Control system through Modbus communication however other packages like fire water / foam systems, additive skids, corrosion inhibitor skid, coalescer filter I/O's (along with logic	Bidder understanding of the scope is correct. All I/Os of Package system will be integrated to Main control system by others; however, bidder shall give the required I/O details for the same. For details, please refer to scope of work document.



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				implementation) will be integrated with Respective main PLC based system by others. Bidder will provide I/O details for the same DDE. Owner to confirm.	
6.	20005-GEN-S-SOW-2015, PG No. 1436 of 3638	20.2.7	Power supply UPS & NON-UPS	Bidder understand that UPS & NON-UPS power supply up to PDB for respective packages shall be provided by others.	Bidder understanding is correct. PMC/OWNER will provide UPS & NON UPS power supply up to the field PDB supplied by LSTK-A Contractor.
7.	20005-GEN-S-SOW-2015, PG No. 1436 of 3638	20.2.10	Package instruments	Package instruments outside the battery limit (like Fire water PT's WCFM etc.) where JB's may not be required integration and cabling shall be done by others.	Bidder to refer Addendum 2 , Scope of work document and P&IDs.
8.	20005-GEN-S-SOW-2015, PG No. 1437 of 3638	20.2.14.VI	ROSOV FIREPROOF DESIGN	As ROSOV Pneumatic actuator to be fireproof externally either by blanket or fire box, owner to provide specification for the fireproofing of Actuator.	Bidder to refer Instrumentation Specification document 20005-GEN-I-SPE-6007
9.	20005-GEN-P-PID-1004_2, PG No. 3266 of 3638	-	Detail B for ROSOV	Open, close indication (ZLH, ZLL) required outside dyke. Bidder understand that 2 numbers of Digital output will be provided from DCS for the purpose. PMC to confirm bidder understanding.	Open and Close command will be provided from Control room PLC and Open/Close feedback will be connected to PLC. Please refer to Scope of work and Instrumentation specification given in tender document.



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10.	20005- GEN-P- PID- 1004_2, PG No. 3266 of 3638	-	Detail B for ROSOV	Open, close FIELD SWITCH (HSH, HSL) Provision & Emergency close Button (ECB) required outside dyke. Bidder understand these Push Buttons will be Digital input to ESD & Accordingly Digital output will be generated from ESD for the control of valve. PMC to confirm bidder understanding.	Bidder to refer Scope of work and Instrumentation specification document.
11.	20005- GEN-I- EDB-6009, PG No. 1819 of 3638	-	Specification of DBBV	PMC to provide details requirement of Specifications & ITP for DBBV Valve.	Bidder to refer the attached specification along with Addendum-3.
12.	20005- GEN-P- PID- 1004_2, PG No. 3266 of 3638	-	Details for DBBV	Typical Details for DBBV not found in P&ID. Bidder consider Details same as typical Details of MOV. PMC to confirm bidder's understanding.	Bidder understanding is correct
13.	20005- GEN-I-SPE- 6007, PG No. 1819 of 3638	-	MOVs Valve type	Type of Valve for MOV not Mentioned in Instrumentation specification. Bidder consider Gate Valve for MOV as indicated in P&IDs. PMC to confirm.	Bidder to follow as per P&IDs.



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14.	20005-GEN-L-SPE-3102, PG No. 2217 of 3638		VMS for DBBV	VMS for Double Block Bleed Valve Not found. PMC to provide same.	Bidder to note that this to be developed in detail engineering as part of residual engineering which is in Bidder scope.
15.	Page 1084 of 3638 20005-GEN-G-DB-9125	3.) Major Facilities envisaged	Pigging facility	The list of marketing terminal facilities and the terminal overall plot plan does not mention pig launcher and receiver facility. Client to confirm the requirement.	Bidder to note that there is no requirement of Pig launcher and Pig receiver in Devangonhi Marketing Terminal
16.	Page 3263 of 3638 20005-GEN-L-DW-3001	Overall Plot Plan	Instrument air package and Coalescer-Separator location	Client to provide the locations of Instrument air-dryer package and Coalescer-Separator package on the Overall Plot Plan.	To be finalized during Detailed Engineering.
17.	Page 3263 of 3638 20005-GEN-L-DW-3001	Overall Plot Plan	Existing pipeline location	Bidder understands that UG scanning report for existing pipeline location will be provided by the client. Kindly confirm.	Bidder understanding is not correct. Please refer to Clause 19.6.1.2 "Pipeline Design "of document No. 20005-GEN-S-SOW-2015, Rev-0 (Page No. 1422 of 3638).
18.	Page 3270 of 3638 20005-GEN-P-PID-1006_3	P&ID for TLF Bays	Physical battery limit between LSTK packages	Where should the physical battery limit of LSTK-C be considered for TLF bays in the gantry?	The Physical battery limit for all process and Instrument air lines related to each loading arm will be inside the TLF Gantry bay area, exact tie-in point coordinates for each line to be finalized by bidder in



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					consultation with PMC during detailed engineering
19.	Page 3293 of 3638 20005-GEN-P-PID-1020	P&ID for Raw Water & Potable water	Location of bore wells	As per P&ID Bidder understands that discharge piping from borewell pumps to Raw water sump is in Bidder's scope. Client is requested to provide the location of bore wells on the Overall Plot Plan.	For Optimum groundwater exploration the borewells will be located geographically far from each other throughout the terminal (mainly in Green belt area) and exact location of each borewell shall be made available during detailed engineering stage
20.	Page 3263 of 3638 20005-GEN-L-DW-3001	Overall Plot Plan	Native file	Please provide the native file of the Overall Plot Plan.	Bidder to note that this will be provided to successful bidder.
21.	Page 1440 of 3638	PACKAGE SCOPE OF WORK (20005-GEN-S-SOW-2015) Cl. No. 21.2.1 (ii). SCOPE OF DESIGN & ENGINEERING,	Electrical Scope	Bidder understands that Preparation of Electrical Design Basis is not in the bidder scope as already available in tender document. Bidder will follow the same. Kindly confirm the bidder understanding.	Bidder understanding is correct. However, if any changes during detail engineering shall be updated by successful bidder
22.	Page 1440 of 3638	PACKAGE SCOPE OF WORK (20005-	Electrical Scope	Bidder consider preparation of design calculations for cable tray sizing from field SPDB / MOV DBs to MOVs/DBBs.	Bidder understanding is correct.



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		GEN-S-SOW-2015) Cl. No. 21.2.1 (iii). SCOPE OF DESIGN & ENGINEERING,		Rest of cable tray sizing are not in bidder scope. Kindly confirm the bidder understanding.	
23.	Page 1444 of 3638	PACKAGE SCOPE OF WORK (2005-GEN-S-SOW-2015) Cl. No. 21.4.4 INTERFACE WITH OTHER CONTRACTOR'S,	Electrical Scope	Bidder understands that lighting for package A is not in bidder scope of work. Kindly confirm the bidder understanding.	Bidder understanding is correct. However, lighting within the package / skid supplied by LSTK-A contractor shall be included in their scope of work, as applicable.
24.			ENGINEERING DESIGN BASIS ELECTRICAL	Two numbers of Electrical Design basis documents are available in this tender. 1) 2005-GEN-G-DOC-9125_Rev_0 2) 2005-GEN-E-EDB-5006_Rev_0 Kindly confirm which design basis document to be followed.	Bidder to follow both the design basis documents.
25.			Cable routing layout	Bidder request to provide Cable routing layout for package_ A	The required document is not available. Successful bidder to



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				scope of work to understand cable routing and cabling requirement.	prepare cable tray routing layout as per scope of work during detail engineering.
26.	Page 3128 of 3638	3. Pump Type	Pump type mentioned in MDS for Jockey Pump Doc. No. 20005-GEN-M-DS-4021, Rev.0 as OH2 Type as per API 610.	Client, please note that Fire Water Jockey Pump shall be Non-API type Pump (Std. IS5199 std.), Client to please suggest whether our understanding is correct.	Bidder understanding is not correct. Bidder to follow the tender requirement for jockey pumps.
27.	Page 1387 of 3638	16.2.4.4.	Corrosion Inhibitor Skid	Datasheet for Corrosion Inhibitor Package not able to find in tender, client requested to please share for the same.	Bidder to note data sheet for corrosion inhibitor shall be prepared during detail engineering by successful bidder. However, bidder to refer to specification for corrosion inhibitor attached with tender for more details.
28.	3253 to 3259 of 3638	GAD of all A/G Storage Tanks	Frangible Joint	As per General Notes of datasheet "Vent considered as per API 2000 applicable for API 650 with frangible joint. Bidder will check for the feasibility of frangible joint during detail engineering and then Frangible joint will be provided if feasible else Emergency Vent to be provided in compliance to API 650 & API 2000 as an alternative to frangible joint [same is	Bidder understanding is correct



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				accepted as per Clause 9.9.1 of 20005-GEN-M-SPE-4005 (Specification of Tanks)]. Client is requested to confirm the same.	
29.	3142, 3146,3150,3 154,3158,31 62 & 3178	Datasheet of all A/G Storage Tanks	Efficiency	It is observed that Tank Shell Thicknesses in GAD are provided considering 0.85 efficiency mentioned in datasheet. Bidder proposed to use reduced Shell Thicknesses considering the efficiency as "1" in compliance to API 650.	Bidder to follow tender requirements.
30.	3253 to 3259 of 3638	GAD of all A/G Storage Tanks	Width & Thickness of Shell Course	In GAD of all A/G Storage Tanks, Shell Courses are considered of 1500 mm width. Bidder understood that width & accordingly thickness of shell course are indicative only and Bidder can use the width of shell courses as per availability & accordingly thickness (increased or decreased) in compliance to API 650. Client is requested to confirm the same.	Bidder understanding is correct. However Shell course width shall be of minimum 1500 mm



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31.	3253 to 3259 of 3638	GAD of all A/G Storage Tanks	Roof Thickness	In GAD of all A/G Storage Tanks 5 mm thickness is mentioned for Roof, however as per clause 5.10.2.2 Corrosion Allowance (here 1.5 mm) to be added to minimum of 5 mm, hence minimum Roof Thickness shall be 6.5 mm. Client to note that Roof Plate will be considered of 6.5 mm or next available thickness i.e. 8 mm.	Bidder understanding is correct
32.	1222 of 3638	7.17 of 20005- GEN-G-DOC- 9125	Bulk Air Eliminator	Client is requested to provide the datasheet of Bulk Air Eliminator.	Bidder to note data sheet for bulk air eliminator shall be prepared during detail engineering by successful bidder. However, all technical details of bulk air eliminator is indicated in tender which is sufficient for bidder.
33.	Page 47 of 3638	VOLUME I : COMMERCIAL PART I, Clause 9. PREPARATION AND SUBMISSION OF BIDS (xxix) Signed & Stamped Copy	Technical Submission requirements	There is a format of "Undertaking by The Bidders" and Bidder is submitting the same signed copy at section (xxi) UNDERTAKING BY THE BIDDERS. In addition to above, in section "(xxix) Signed & Stamped Copy Undertaking by the bidder", we need to submit	Bidder understanding is correct



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		Undertaking by the bidder.		<p>following signed Documents as per Tender.</p> <ol style="list-style-type: none">1. Undertaking related to PP-LC 2017 (as per clause 38 of SCC, 515 to 530 of 3638)2. Annexure-4 to NIT - Corporate Undertaking (Page 33 of 3638)3. Undertaking related to Clause 39 of SCC (Page 531 to 536 of 3638) <p>Please confirm above Bidder understanding.</p>	