



MANGALORE REFINERY & PETROCHEMICALS LTD.
(A subsidiary of Oil & Natural Gas Corpn. Ltd – ONGC)
Read. Office: Kuthethoor P.O.. Via: Katiballa. Mangalore-575030



Addendum - 7

To

MRPL Tender No. 9680000M1B dated 11.03.2022

**DESIGN, SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF LPG AMINE CONTACTOR FOR
LPG AMINE ABSORBER SYSTEM IN PFCC UNIT AT MRPL, MANGALURU, KARNATAKA**

With reference to the above tender, bidders are requested to note the following:

The items, conditions, specification and stipulations of the Bidding Documents stand modified to the extent indicated in Annexure -1 - Technical Addendum.

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

Bidders shall submit copy of this Addendum-7 including its Annexure-1 with the techno-commercial bid, duly signed and stamped, as a token of having read and understood the same.

Annexure-1: Technical Addendum

Sl. No.	Section No. / Clause No.	The Clause/Description stands Modified as below
1.	BIDDER TO READ ATTACHED ADDENDUM-1 TO MATERIAL REQUISITION-9680-02-MR-201,Rev.1, Clause No. 9680-02-JS- 201 FOR LPG AMINE CONTACTOR	<ul style="list-style-type: none"><li data-bbox="820 465 1474 562">• BIDDER TO READ ATTACHED ADDENDUM-2 TO MATERIAL REQUISITION-9680-02-MR-201,Rev.1, Clause No. 9680-02-JS-201 FOR LPG AMINE CONTACTOR



MANGALORE REFINERY AND PETROCHEMICAL LIMITED

EPCM SERVICES FOR INSTALLATION OF LPG AMINE ABSORBER SYSTEM IN PFCC UNIT AT MRPL, MANGALURU



ADDENDUM-2

FOR

MATERIAL REQUISITION FOR LPG AMINE CONTACTOR, Doc No. 9680-02-MR-201, Rev.1

0	16.05.2022	Issued For Enquiry	GVK	HAS	HAS
Rev.	Date	Description	Prpd.	Chkd.	Appd.
 Triune Energy Services Pvt. Ltd. New Delhi		Addendum-2 for Material Requisition for LPG Amine Contactor	Document Number		Rev
			9680-000-02-OT-0003		0
			Sheet 1 of 5		

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**Addendum-2
for Material Requisition
for LPG Amine Contactor**

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1.0 INTRODUCTION

MRPL has installed Petrochemical Fluidized Catalytic Cracking (PFCC) unit with a capacity of 2.2 MMTPA. The unit was commissioned in 2014. The process technology was licensed by M/s. Technip Stone and Webster. While processing feed with higher Sulphur content in PFCCU, higher H₂S is expected in LPG stream. A New LPG Amine Treatment unit shall be installed to remove the hydrogen sulfide present in the LPG and to minimize the spent caustic generation in existing caustic treatment system.

BDEP was prepared by Technip Stone and Webster and MRPL has selected Triune Engineering Services to provide EPCM services.

2.0 DEFINITIONS

Company / Owner: Mangalore Refinery and Petrochemicals Limited (MRPL)

Licensor: Technip FMC

EPCM: Triune Energy Services Pvt Ltd. (TESPL)

Vendor: Party with which purchaser has an arrangement for the design, engineering, manufacturing and supply of the items as per this specification.

Sub Vendor: Party with which Vendor has an arrangement for manufacture and supply etc. of components and / or services.

3.0 INTENT

Addendum- 2 is to be read in conjunction with the Material Requisition for LPG Amine Contactor, Doc No. 9680-02-MR-201, Rev 1.

As an amendment to above Material requisition, Addendum-I is being issued for the total responsibility of process and mechanical design, engineering, procurement of material with test certificates, manufacturing, assembly, inspection & testing, surface preparation & painting, packaging, guarantee (mechanical & performance), supply & transportation at site of following equipment by vendor in compliance with process data sheets, mechanical design basis, project specifications, construction standards and other documents & forms attached with requisition.

4.0 ADDITIONS / MODIFICATIONS / DELETIONS FOR LPG AMINE CONTACTOR

Requirements specified in the following paragraphs are additions, modifications & deletions to the referred clauses / sections of Material Requisition for Performance Guarantee of LPG Amine Contactor



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S. No.	Document	Document No. (Clause No.)	Rev. No.	No of Pages
1	<p><u>Deletion:-</u> Addendum-1 for Material Requisition for LPG Amine Contactor (Doc. no. 9680-000-02-OT-0002)</p> <p>c. Heat & Material balance (HMB) prepared during Feed stage shall be shared. Vendor to check and confirm that H₂S removal efficiency based on HMB can be achieved with packing height, number of beds and column height specified in PDS. If packing height, number of beds and column height is not adequate, same can be increased meeting allowable pressure drop across the beds specified in PDS.</p> <p>d. Vendor to provide supporting calculations and details of selected packing design for achieving guarantees. The calculation submitted will be vetted by consultant/ Licensor.</p>	9680-02-JS-201	1	-
2	<p><u>Addition:-</u> Job Specification for LPG Amine Contactor (Clause no. 7.0 Scope of Supply and Work)</p> <p>a. Tower and internals dimensions are set based on Technip Energies process design objectives, in-house design programs and understanding of potential vendor offerings, and should be considered preliminary but adequate to size the tower and set major internal dimensions and layout. As vendor has to offer a hydraulic and mechanical guarantee they should agree to any dimensions impacting the performance of their equipment. As they develop the fabrication dimensions and layout drawings some aspects may impact certain dimensions and adjustments will be required by the equipment vendor. Vendor may also have actual performance data of their equipment and may offer some deviation from Technip Energies specification – however the actual performance design data of packing vendor shall be submitted to Technip Energies (through MRPL/Detailed Engineering</p>	9680-02-JS-201	1	-

	<p>Contractor) for review, to ensure their process performance objectives are not compromised.</p> <p>b. The column height to be confirmed based on vendor data. As explained in the above paragraph, there will be some modifications with respect to the tower height as the internals / distributors are designed by vendors, accordingly the column height to be revalidated based on vendor data by EPCM.</p>			
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Note:

All other clauses/sections in addition to above changes of the Material requisition Doc. No. 9680-02-MR-201, Rev. 1, stand unchanged.



TRIUNE

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for LPG Amine Contactor**

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