



ADDENDUM-III
Tender No. 1090C19046 dated 19-Nov-2019 for Supply of Activated Alumina to ONGC Mangalore Petrochemicals Ltd (OMPL) - An SEZ Unit

Addendum to tender document is as follows:

Sl. No.	Subject/Bidders Query	OMPL Reply/Clarification
1	Please provide the complete Process Parameter of Chloride treater (LPG and Net GAS). Since the evaluation is based on the life cycle of the adsorbent we need the inlet PPM and all other parameter in order to calculate the life cycle of the adsorbent.	Process Parameters are attached as Annexure I
2	Request you to provide us Technical details/specifications for Supply of Activated Alumina to OMPL	Technical details/specifications are attached as Annexure I
3	Tender not shown in our Central Public Procurement portal (CPPP) Portal	The complete Tender/Bidding document is available for view/download on OMPL website http://www.ompl.co.in/tenders as well as on https://eprocure.gov.in/epublish/app (Tender ID on CPPP: 2019_OMPL_493863_1)
4	Clause ii) Past Experience & Capability under clause A. PRE QUALIFICATION CRITERIA (PQC)/ BID QUALIFICATION CRITERIA (BQC) page No. 14 & 15 of tender document has been modified to read as:	<p><u>Past Experience & Capability:</u></p> <ol style="list-style-type: none">Bidder should have supplied Activated alumina/adsorbent:<ol style="list-style-type: none">For LPG chloride treater at least 1020 kgsAnd / OR<ol style="list-style-type: none">For Net Gas chloride treater at least 15.85 MTagainst single Purchase Order in any of the last 5 years ending last day of the month previous to the one in which tender is invited. Documentary evidence such as Copy of Purchase Order/Completion Certificate for item of similar capacity and technical specifications shall be attached with Techno-commercial bid.The bidder must have experience of supplying to atleast one Hydrocarbon sector like Refineries, Petrochemicals, Fertilizers, Oil & Gas Processing plants, etc.Bidder should be a manufacturer or Authorised dealer of the manufacturer. Authorization certificate given by manufacturer shall be submitted by Authorized dealer.

		Other Criteria/Terms & Conditions under PRE QUALIFICATION CRITERIA (PQC)/ BID QUALIFICATION CRITERIA shall remain same
5	Clause iii) & iv) under clause B.BID EVALUATION CRITERIA (BEC) page No. 15 of tender document has been modified to read as:	iii) Expected minimum guaranteed life is 6 (Six) months. Bidders who offer minimum guaranteed life below six months shall be rejected. iv) Techno-commercially accepted Offers/Bids will be evaluated on Itemwise L1 basis i.e. lowest landed cost to OMPL after considering minimum guaranteed life of 6 (Six) months.
6	Clause 4 Penalty under Other Conditions of Contract page no. 21 of tender document has been modified to read as:	Penalty: In event of failure of the adsorbent before the life, penalty @5% of the order value shall be paid by the vendor Remaining Terms & Conditions under Other Conditions of Contract shall remain same
7	Last date for submission of bid: 15:00 HOURS (IST) ON 10-Dec-2019	The last date of Bid submission due date for the above referred tender stands extended upto 15:00 Hrs (IST) on 16-Jan-2020. Unpriced Techno-Commercial bid shall be opened at 15:30 hours (IST) on extended date of bid submission.

All other terms & conditions, stipulations, specifications etc. of tender document issued earlier shall remain unaltered. This forms an integral part of bidding document. Bidders are requested to take cognizance of the same and submit their bids accordingly. Bidders are requested to submit the copy of this document duly signed & stamped along with the bid (in the techno-commercial part) as the token of acknowledgement & acceptance of the same.

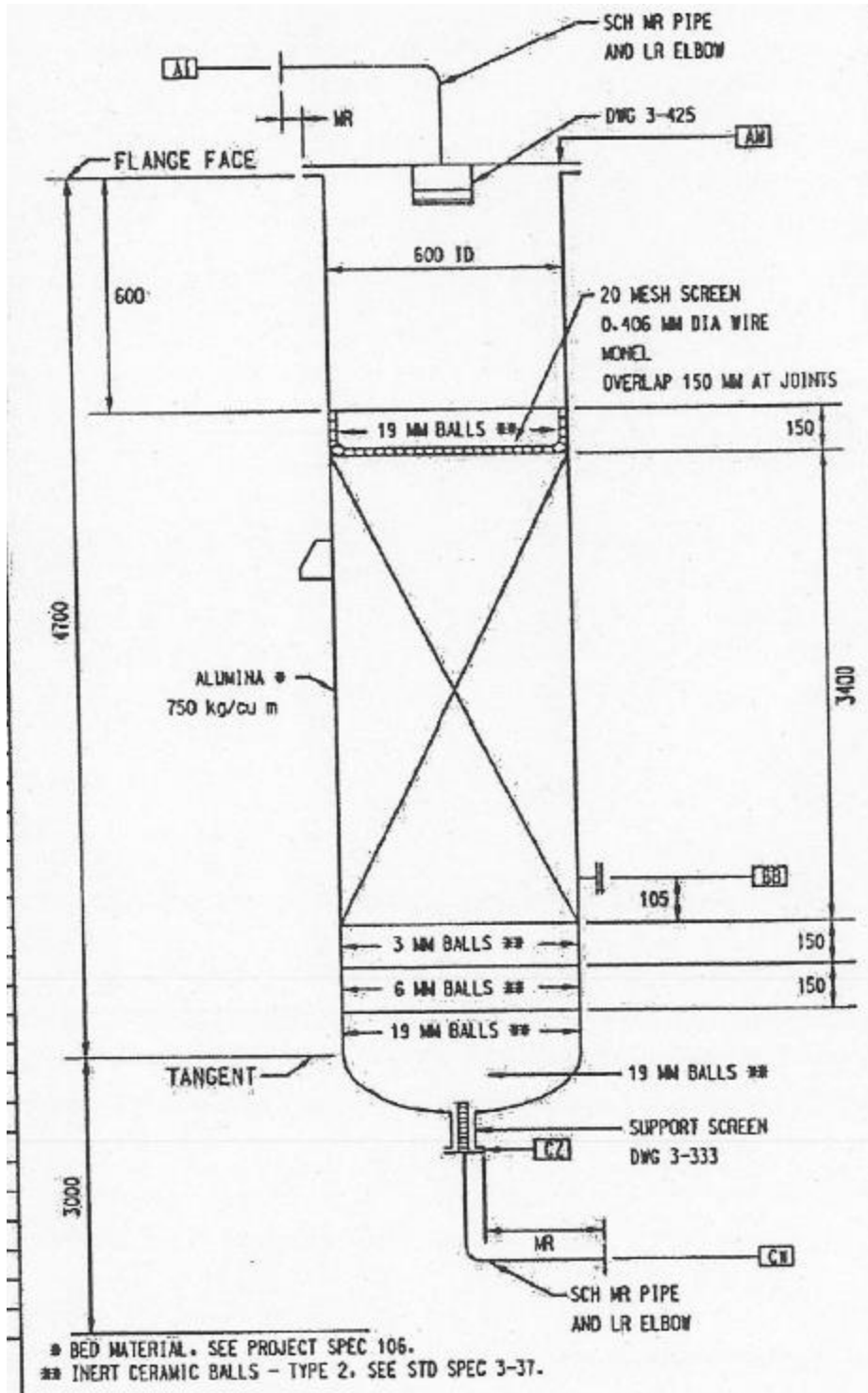
Sign & Stamp of Bidder



Annexure I - Technical Data of Chloride Treater

		LPG	Net Gas
Flow NM3/hr	Nm3/hr		70264
	Kg/hr	6400	
Flow direction (up/down)		top to bottom	top to bottom
Operating pressure kg/cm2	kg/cm2	32.57	26.16
Operating temperature Deg C	deg C	40	30
Details of feed stream:			
Mol wt.		51.33	6.6
Composition:			
	H2 mol%	0.0695	84.82
	C1 mol%	0.263	5.88
	C2 mol%	5.4644	5.63
	C3 mol%	37.9314	2.91
	iC4 mol%	22.32	0.33
	nC4 mol%	32.44	0.26
	iC5 mol%	1.277	0.03
	nC5 mol%	0.1033	0.01
	C5 olefins mol%	0.1108	0
	C6 non aromatics mol%	0	0.02
	C6 aromatics mol%	0	0.01
	H2O mol%	0.0038	0.01
	H2S ppm v	3	1
	Inlet Chloride content ppm v	6	14
ID of Reactor	mm	600	2600
Height of Catalyst bed	mm	3400	6000
No. of Reactors: 2 No. (Lead lag)		2	2
Catalyst Bed Volume: M3 (one vessel)			33
Current CATALYST (in use):		activated alumina	activated alumina
Make and Grade:			
Catalyst bed support / Bed Topping:		ceramic balls	ceramic balls
Provide a drawing of the catalyst bed layout:			
Chloride slip SOR	ppmv	<1	<1
Chloride slip EOR	ppmv	<1	<1
Operating Temp. SOR	deg C	40	30
Operating Temp. EOR	deg C	40	30
Chloride pickup EOR	%w/w		
Actual Catalyst life :	months	12	12
one bed			
two bed			
Desired life	months	6	6
The desired pressure drop:			
SOR	kg/cm2	within permissible limit	within permissible limit
EOR	kg/cm2	within permissible limit	within permissible limit

Technical Specifications for Activated Alumina/Adsorbent for LPG Chloride treater





Annexure I - Technical Data of Chloride Treater

1.0 INTRODUCTION

ONGC Mangalore Petrochemicals Limited (OMPL) is subsidiary Mangalore Refinery Petrochemicals Limited. OMPL operates one continuous catalytic Reforming units (CCRP) of capacity 949 KMTA.

LPG generated as by product in CCR units and it is treated for Chloride removal by combination of two adsorbent beds in lead leg arrangement.

OMPL intends to procure fresh charge of chloride removal adsorbent for LPG services for Platformer.

2.0 OBJECTIVE

The objectives of the proposed procurement as follows:

Reduce Chloride content in the LPG by LPG chloride treater.

3.0 PROCESS DESCRIPTION

Platformer Unit is reforming the paraffins & Naphthenes present in Naphtha feed & generate Aromatics. By products of these units are LPG, Fuel gas & Hydrogen. All the chemical reactions taking place in platformer reactors in presence of R-264 Catalyst. To maintain the catalyst activity, chloride injection (PERC) will be done into the regenerator. LPG Chloride Treater is installed to remove the chloride from LPG in platformer. LPG Chloride Treater is having 2 beds in lead leg configuration. Once the bed exhausted adsorbent replacement to be initiated with fresh charge.

4.0 FEED SPECIFICATION

The LPG generated in platforming section of CCR units need to be treated for chloride removal, which are organic and inorganic in type.

LPG Flow	6400 Kg/hr
Operating Pressure and temperature	10.55 kg/cm ² g and 40 Deg C

LPG Composition inlet to Chloride treater (Typical)

H ₂	0.0695 mol %
C ₁	0.2629 mol %
C ₂	5.4644 mol %
C ₃	37.9314 mol %
iC ₄	22.3270 mol%
nC ₄	32.4483 mol%
iC ₅	1.2769 mol%
nC ₅	0.1033 mol%
C ₅ Olefin	0.1108 mol%
H ₂ O	0.0038 mol %
H ₂ S	3 ppmv
Expected Chloride	6 ppmv



Annexure I - Technical Data of Chloride Treater

5.0 VESSEL DETAILS

Each vessel Diameter	600 mm
Tangent Length	4700 mm
Amount of Chloride guard presently loaded	1 m3/ bed
Direction of flow	Top to bottom
Operating pressure and temperature	10.55 kg/cm ² g and 40 Deg C

6.0 GUARANTEES TO BE MET

1. Chloride content at the outlet should be less than 1 ppm. (Analysis method: vendor to specify)
2. Vender to specify and guarantee per bed adsorbent life.

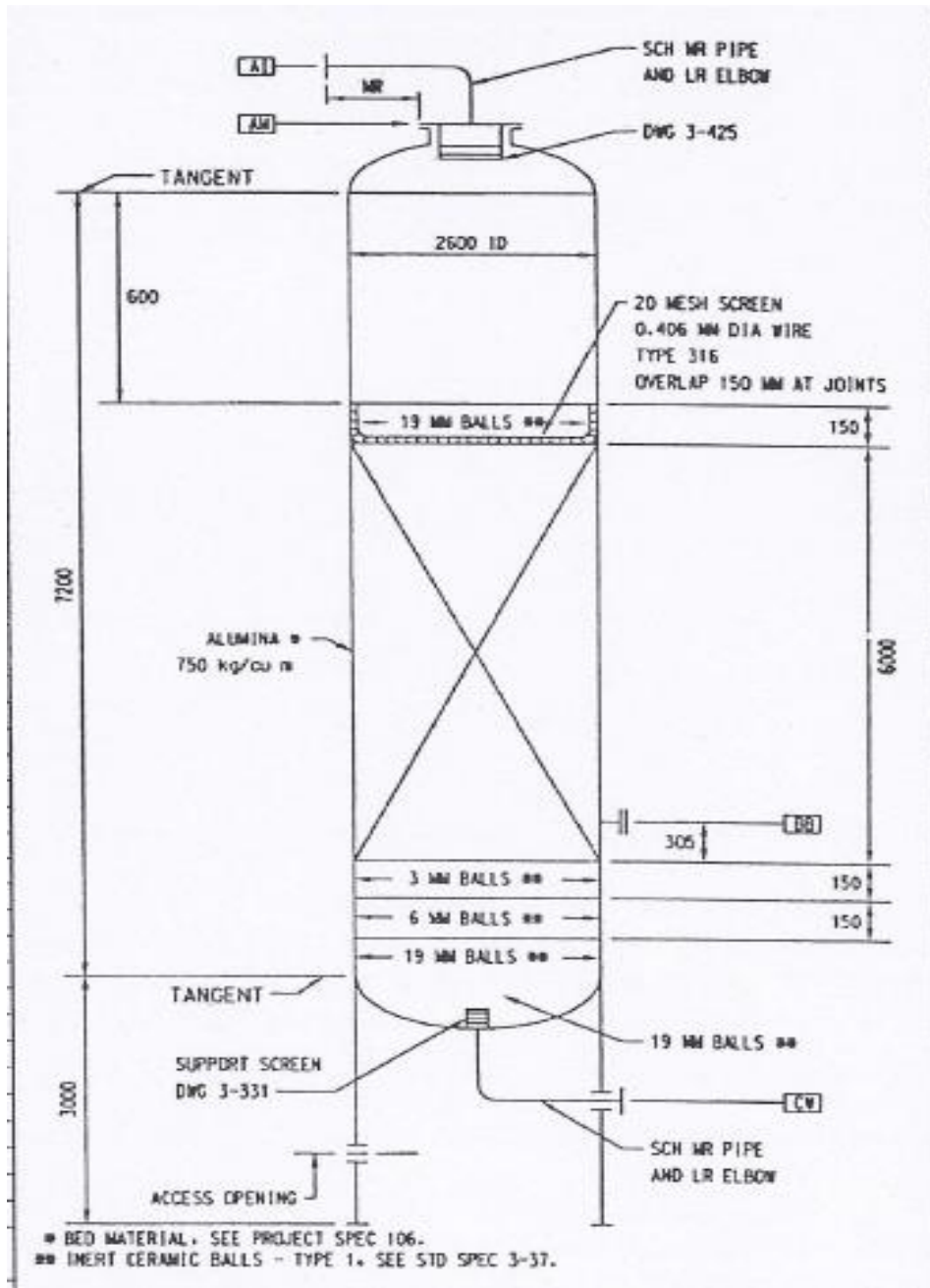
7.0 COMPLIANCE STATEMENT

Vendor must state categorically whether or not their offers meets all the requirements listed in the technical specifications. Any deviation from OMPL requirement should be listed Clause wise in a separate chapter on deviations. Any deviation not listed in the chapter shall be considered as compliance.

Vendor has to fill up this table and has to be sent along with the bid documents along with the endorsement of the authorized person.

COMPLIANCE REQUIREMENT	VENDOR'S RESPONSE
1. Adsorbent guaranteed life offered by the bidder	
2. Technical Specification is read and Understood	Yes / No
3. Any Deviations if any	
4. Reasons for Deviation	
5. Authorized personal details	Signature with seal

Technical Specifications for Activated Alumina/Adsorbent for Net Gas Chloride Treater





Annexure I - Technical Data of Chloride Treater

1.0 INTRODUCTION

ONGC Mangalore Petrochemicals Limited (OMPL) is subsidiary Mangalore Refinery Petrochemicals Limited .OMPL operates one continuous catalytic Reforming units (CCRP) of capacity 949 KMTA.

Net gas generated in CCR units is treated for Chloride removal by combination of two adsorbent beds in lead leg arrangement.

OMPL intends to procure fresh charge of chloride removal adsorbent for the Net gas services for Platformer.

2.0 OBJECTIVE

The objectives of the proposed procurement as follows:

Reduce Chloride content in the net gas by Net gas chloride treater.

3.0 PROCESS DESCRIPTION

Platformer Unit is reforming the paraffins & Naphthenes present in Naphtha feed & generate Aromatics. By products of these units are LPG, Fuel gas & Hydrogen. All the chemical reactions taking place in platformer reactors in presence of R-264 Catalyst. To maintain the catalyst activity, chloride injection (PERC) will be done into the regenerator. Some amount of this chloride is present in the system. Net Gas Chloride Treater is installed to remove the chloride from Gas generated in platformer. Net Gas Chloride Treater is having 2 beds in lead leg configuration. Once the bed exhausted adsorbent replacement to be initiated with fresh charge.

4.0 FEED SPECIFICATION

The net gas generated in platforming section of CCR units need to be treated for chloride removal, which are organic and inorganic in type.

Net gas flow	70264 Nm ³ /hr 3135.3 kmol/hr
Operating Pressure and temperature	26.65 kg/cm ² g and 30 Deg C

Net Gas Composition inlet to Chloride treater (Typical)

H ₂	84.82 mol %
C ₁	5.88 mol %
C ₂	5.63 mol %
C ₃	2.91 mol %
iC ₄	0.33 mol %
nC ₄	0.26 mol %
iC ₅	0.03 mol %
nC ₅	0.01 mol %
C ₆ non Aromatics	0.02 mol %
C ₆ Aromatics	0.01 mol %
H ₂ O	0.01 mol %
H ₂ S	1 ppmv
Expected Chloride	14 ppmv



Annexure I - Technical Data of Chloride Treater

5.0 VESSEL DETAILS

Each vessel Diameter	2600 mm
Tangent Length	7200 mm
Amount of Chloride guard presently loaded	33 m3/ bed
Direction of flow	Top to bottom
Operating pressure and temperature	26.65 kg/cm ² g and 30 Deg C

6.0 GUARANTEES TO BE MET

1. Chloride content at the outlet should be less than 1 ppm. (Analysis method: vendor to specify)
2. Vender to specify and guarantee per bed adsorbent life.

7.0. COMPLIANCE STATEMENT

Vendor must state categorically whether or not their offers meets all the requirements listed in the technical specifications. Any deviation from OMPL requirement should be listed Clause wise in a separate chapter on deviations. Any deviation not listed in the chapter shall be considered as compliance.

Vendor has to fill up this table and has to be sent along with the bid documents along with the endorsement of the authorized person.

COMPLIANCE REQUIREMENT	VENDOR'S RESPONSE
1. Adsorbent guaranteed life offered by the bidder	
2. Technical Specification is read and Understood	Yes / No
3. Any Deviations if any	
4. Reasons for Deviation	
5. Authorized personal details	Signature with seal