



TENDER NO. TCML/MGD/2019/21

**DESIGN, SUPPLY AND INSTALLATION OF DUST
CONTROL & EXTRACTION SYSTEM AT
KAJIADO TRANSHIPMENT PLANT**

JULY, 2019

**PROJECT LOCATION: KAJIADO TOWN,
KAJIADO COUNTY, KENYA**

CLIENT:

TATA CHEMICALS MAGADI LIMITED
P.O. BOX 1-00205
MAGADI

THE HEAD OF PROCUREMENT

TATA CHEMICALS MAGADI LTD.
P.O. BOX 1-00205
NAIROBI



About Tata Chemicals Magadi

Tata Chemicals Magadi Limited (TCML) occupies a significant place in the African economy. It is Africa's largest soda ash manufacturer and one of Kenya's leading exporters. Just as significant, the company is an important part of the socio-economic fabric of the Lake Magadi region in Kenya, where its soda ash facility is based.

Formerly known as Magadi Soda Company, TCML has been a part of Tata Chemicals since 2005. Tata Chemicals Limited (TCL), part of the global Tata group, is one of the world's leading chemical companies, with a widespread portfolio of household products, industrial chemicals and agricultural inputs. TCL's operations are located in the US, the UK, Kenya and India.

Established in 1911, Tata Chemicals Magadi Limited has been producing soda ash at Lake Magadi for over a hundred years. The site is situated 120kms south west of Nairobi. Here, the company recovers Trona (a naturally occurring mineral that contains sodium compounds) from one of the purest surface deposits in the base of the Rift Valley at Lake Magadi. TCML converts Trona into soda ash, which is transported by rail to the Port of Mombasa for onward shipping to the markets.

Soda ash is an essential constituent in the manufacture of glass and the production of detergents and industrial chemicals. Over 95 per cent of the company product is exported to its principal markets of South East Asia, Indian sub-continent, Africa and the Middle East through the Mombasa port.

Kajiado Dust Control.

TATA Chemicals runs a Transshipment plant at Kajiado for bulk offloading of its products from wagons and loading on Trucks/lorries for transport to Mombasa and other destinations in Kenya and East Africa. Due to the nature of our product and the nature of activities of offloading from Wagons and loading on trucks, there is huge emissions of dust to the environment.

TATA Chemicals Magadi intends to procure materials, Dust extraction machines and services to help reduce and minimize the dust emissions during our operations in Kajiado

TATA Chemicals invites bids from competent local agents and international engineering firms to undertake Design, Supply and Installation of Dust Extraction and collector system at the Kajiado Transshipment plant.

SCOPE OF WORK

The scope of works shall be as described in the BoQ and tender document.

QUALIFICATION FOR TENDERING

1.1. Mandatory Requirements

The following must be submitted together with bid:

- i) **Certified** copy of Certificate of incorporation
- ii) Copy of Registration certificate for National Construction Authority (NCA) in category **NCA 4, 5 & 6**
- iii) Copy of Valid Tax Compliance Certificate
- iv) **Certified** copy of **Current** Single business permit
- v) **WIBA** Compliant; and show proof.
- vi) **Agency License** to sell, distribute, install and service the equipment from Manufacturer.

NB: Failure to meet the MANDATORY requirements, the bid will be DISQUALIFIED and no further evaluation will be done.

1.2 Other Requirements

The Bidder shall submit information which will enable the technical team to evaluate their capability to undertake the works. For the purpose of these works, it is required that the firms should provide the following:-

- i) Similar previous experience within the last 3 Financial years
- ii) Equipment holding attach proof and lease agreements; any of the two.
- iii) Professional and technical staff (attach CV's, testimonials & Certificates for the staff that will undertake the job, The CV to be endorsed by the Top Management.)
- iv) Audited Financial statements for the last 3 financial years
- v) Completion period (attach detailed work Schedule)

All information in the attached forms should be provided in full and failure to do so will constitute grounds for disqualification.

There shall be a mandatory pre-tender site visit as specified in the table below:

Date	11 TH JULY 2019
Time	11.00 a.m
Venue	KAJIADO TRANSSHIPMENT, KAJIADO TOWN.

	TECHNICAL CRITERIA	SCORE	POINTS AWARDED
1	Mandatory Requirements		YES/NO
1.1	Certified copy of Certificate of Incorporation		YES/NO
1.2	Copy of Registration certificate for National Construction Authority (NCA) in category NCA 4, 5& 6		YES/NO
1.3	Copy of Valid Tax Compliance Certificate (To be checked online through KRA portal)		YES/NO
1.4	Financial Status; current Audited financials for the last 3 years		YES/NO
1.5	WIBA Compliant; and show proof.		YES/NO
2	Firm registered by NCA and ERC as a Contractor.		
	§ Proof of Valid NCA 4 To NCA 6 Certificate	10%	
	§ Proof of license as a contractor with ERC Class C and above	10%	
3	Firm Relevant Experience		
	§ At least one job Installing Dust Extractor machines and Ducting	10%	
	§ At least one job of servicing Dust Extraction machines	10%	
	§ At least one job Installing PVC Curtain strips	10%	
4	Technical Staff Competency & Safety Awareness		
	§ Team Leader is a Professional Engineer & Class A1 Electrician or Mechanical Technician with proof of both current Licenses.	5%	
	§ Other Staff (At least 2No.) includes both Trained Engineers (Degree Holders) and Technicians (Diploma Holders) with at least 5 years of experience.	5%	
	§ Safety Awareness: Demonstration of Works Potential Hazards, Risks as well as measures to reduce risk levels.	5%	
	§ WIBA Insurance Cover: Proof of valid WIBA Insurance covering at least the total number of staff proposed.	5%	
5	Works Plan		

	§ Demonstration of understanding of the scope of works as given by the employer.	10%	
	§ Detailed Gannt Chart. (Pro-rate if not detailed enough to capture all the employer's tasks).	5%	
	§ Proposed Manning Levels: Indicated on the proposed planning.	5%	
5	Site Visit by the Vendor		
	§ Proof of duly signed site visit attendance certificate for the subject tender.	10%	
	FINAL SCORE	100%	

Note;

1. All bidders must provide above information together with their bids.
2. A bidder must score a minimum of Seventy five (75) points at the Technical Stage to qualify for Financial Evaluation.

The bidders must submit the Technical and The Financial proposals separately.

A. TECHNICAL PROPOSAL -

Two copies in sealed envelopes clearly marked “**TECHNICAL PROPOSAL FOR TENDER NO: TCML/MGD/2019/18 - DESIGN, SUPPLY AND INSTALLATION OF DUST CONTROL & EXTRACTION SYSTEM AT KAJIADO TRANSHIPMENT PLANT**” One copy marked as “**ORIGINAL**” and One other copy marked as “**COPY**”. All to be finally put in one sealed envelope. (The firms will ensure that there is no reference at all on their financial proposal within the technical proposal envelope)

B. FINANCIAL PROPOSAL -

Two copies in sealed envelopes clearly marked “**FINANCIAL PROPOSAL FOR TENDER NO: TCML/MGD/2019/18 - DESIGN, SUPPLY AND INSTALLATION OF DUST CONTROL & EXTRACTION SYSTEM AT KAJIADO TRANSHIPMENT PLANT**” One copy marked as “**ORIGINAL**” and One other copy marked as “**COPY**”. All to be finally put in one sealed envelope (The financial proposal shall include all taxes applicable).

Addressed to:

**The Head of Procurement,
TATA Chemicals Magadi Limited,
P.O. Box 1-00205,
MAGADI.**

The same will be deposited in the tender box situated in Administration Block, Magadi OR Collection Centre, at Enterprise Road - Avon house, Industrial area so as to reach him/her on or before **5.00 p.m. on 19TH JULY, 2019.**

The Management reserves the right to accept or reject any bids and does not bind itself to any reasons for doing so.

SCOPE OF WORKS;

Section 1: RIBBED PVC CURTAINS REQUIREMENTS;

We require the raised ribbing on both sides of the PVC strip face to give it greater durability and improved strength, thus enabling the PVC to withstand repeated impact from heavy traffic such as train wagons and Trucks.

The ribbed material should increase the energy saving properties of the PVC strip by giving an interlocking effect when the strips are overlapped, and also helps prevent scratching of the PVC face, therefore retaining the clarity of the PVC longer.

The ribbed material should be compatible with most types of strip curtain suspension systems and should most commonly be used with the stainless steel 'hook-on' system

We require the PVC curtain strips for the following applications:

- External doorways commonly used with heavy traffic and Train wagons
- Dust Control

Opening sizes.

The exact structural opening width and height - See attached Drawings Appendix II - Drawings

Fixing arrangement

1. Fitting will be face fitted at the Loading bay with stainless steel 'hook-on' hanging system with full overlap of the strips
2. Fitted behind roller shutters

Situation

The curtains will be outdoor subjected to wind pressure

Traffic

The traffic passing through the curtains are Lorries/trucks, Train wagons

Environment

The curtain will be used in warehouse to control outflow of dust

Section 2: DUST ENCLOSURES FOR CONVEYORS

1. Corrugated Galvanized Iron IT5 Gauge 26 cover dust enclosures - CV03 (**CURVED**) - See drawing.
2. Corrugated Galvanized Iron IT5 Gauge 26 cover dust enclosures - CV04 (**CURVED**) - See Drawing.
3. Supply and Installation works of the Iron sheets on the two conveyors.

Section 3: DESIGN, SUPPLY AND INSTALLATION OF DUST EXTRACTION & COLLECTOR SYSTEM KAJIADO TRANSHIPMENT

1. Complete Design, supply, installation and Commissioning of Four units of Dust extraction & Collector Systems for Kajiado Transhipment plant.
2. **General Requirements:**
 - i) The Dust Extraction and Collection systems should be out door type with compact design, low maintenance, and high efficiency with optimal capacity.
 - ii) The Dust Extractor should be designed to handle high-volume dust loads,
 - iii) The Dust Extractor is required to capture the flying dust of less than 106 microns generated during material loading at the tele chutes and material offloading at the wagon pits
 - iv) Dust Extraction and Collection system should be connected to a capture Hood to be fixed above and as close as possible to the collection point.
 - v) Each Dust Extraction and Collection system should be connected to the Dust pick up points separately through Ducting and dimensioned accordingly.
 - vi) The Dust Extraction and Collection systems will be installed outside the building and extended to the collecting point located inside the building with the Ducting.

Detailed Specification:

#	ITEM	DESCRIPTION
01	Dust Extraction and Collection Machine	Outdoor Dust Extraction and collection machine which consists of; <ol style="list-style-type: none"> 1. Centrifugal blower 2. Cartridge filter with baffle separator 3. Reverse pulse jet cleaning system

02	Conveyed material	Soda Ash - See Appendix I for physical and Chemical properties.
03	Particle size to be collected	< 106 Micron
04	No. Of Pick up points	1. Capture hoods at various points 2. Pick up points - Conveyor interchange, Wagon offloading pits, Trucks loading chutes at the tele chutes
05	Air flow rate	15,000M ³ /hr.
06	Filter type	Cartridge type filter elements
07	Filter Area	192M ²
08	Construction material	Carbon Steel
09	Pipeline inlet diameter	300mm
10	Cartridges	64
11	Dust Output	Through manual butterfly valves
12	Operating pressure	6 - 10 bar
13	Operating Temperature	0 - 70° C
14	Dust Control Pane	Built in Control panel
15	Other Accessories	Dust level sensor on storage hopper
16	Motor Rating	Suitable capacity for the above requirement with 415V, 50Hz, 3ph power supply input.

Other Requirements

- a. The total system should have one year warranty after the installation and commissioning and the vendor should replace and repair any defective arise during the warranty period free of cost.
- b. All the bought out items used should be of reputed make with ISI mark and easily available in the Kenyan market
- c. The System should be designed and manufactured as per standard and it is the sole responsibility of the supplier to ensure the intended performance of the System.
- d. **Documentation:** All relevant product information such as user manual, technical specification sheet etc. should be submitted. Also, as build diagrams & sketch, operational & Maintenance Manual the documents generated for this project is/will be sole property of TATA Chemicals Magadi LTD and should not be used/divulged for any other purpose.
- e. **Quantum of work:** Quantities mentioned in the schedule of items are as per the prevailing condition & requirement and may vary during the execution of work. Any such variance will be accounted and paid extra as per the quoted rates.
- f. **Tools and Tackles:** All tools & tackles, equipment's and other required facilities for un-loading, shifting of equipment to the workplace and erection & commissioning of the system shall be arranged by the contractor.
- g. The contractor shall supply the miscellaneous materials like anchor fasteners, screws, bolts and nuts, clamps, suitable angles, etc. for installation and carry out associated minor works including civil works like wall opening and closing etc. if any for successful completion of work. Contractor shall do any other related jobs that are not mentioned above, but found necessary at the time of execution to complete the job in all respect.

- h. **Modifications:** Supplier shall agree for any minor modifications in system up-gradation (without having any additional financial implications) to match with specific requirement of TCML
- i. **The bidder shall visit the site for inspection and understanding the requirements before quoting.**

BILL OF QUANTITIES

PREAMBLE TO BILLS OF QUANTITIES

1. The Contractor is required to check the numbers of the pages and should any be found to be missing or in duplicate or the figures or writing indistinct he must inform the Engineer at once and have the same rectified. Should the Contractor be in doubt about the precise meaning of any item, word or figure, for any reason whatsoever, or observe any apparent omission of words or figures, he must inform the Engineer in order that the correct meaning may be decided upon before the date for the submission of the Tender.
2. No liability whatever will be admitted nor claim allowed in respect of errors in the Contractor's Tender due to mistakes in the Bills of Quantities which should have been rectified in the manner described above.
3. These Bills are to be read and priced in conjunction with the Conditions of Contract, the Specification, the Drawings and Schedules.
4. The quantities set forth in the Bills of Quantities are believed to be approximately correct, and to represent substantially the work to be carried out, and are given for the purpose of enabling the Employer to compare Tenders on an equal basis.
5. The prices and rates inserted in the Bills of Quantities will be used for valuing the work executed, and the Engineer will re-measure the whole of the works executed in accordance with this contract.
6. The prices and rates inserted in the Bills of Quantities are to be the full inclusive values of the work described under the items, including all costs and expenses which may be required in and for the construction of the work described, together with any temporary works and installations which may be necessary, and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based.
7. The brief description of the items given in the Bills of Quantities is purely for the purpose of identification, and in no way modifies or supersedes the details descriptions given in the Conditions of Contract and Specification. When pricing items, reference is to be made to the Conditions of Contract, and Specifications for the full directions and description of work and materials.
8. A price or rate is to be inserted, in ink, against each item in the Bills of Quantities and Schedule of materials, whether quantities are stated or not, and if the Tender includes the cost of a

particular item elsewhere in his rates or prices, he shall insert the word “Nil” against both the rate and extensions of that particular item. Should the Tenderer omit to price an item, then it will be assumed that he has included the cost of the item elsewhere in his rates or prices.

9. No alteration shall be made to the Bills of Quantities or Schedule of materials and no extra item shall be inserted. The Tenderer shall satisfy himself that the Tender sum arrived at by pricing and quantities and items given is sufficient compensation for constructing and maintaining the whole of the works in accordance with these contract documents.
10. The Bills of Quantities have been prepared generally in accordance with the Standard Method and Measurement - Institution of Civil Engineers (U.K) Variations have been made in some cases to suit local practice.
11. All quantities are measured net (unless otherwise stated) in accordance with the Drawings and no allowance has been made for cutting or waste. The Tenderer must allow in his rates accordingly.
12. Where other Contractors engaged by the employer are working in the same area, the Contractor shall give way and clearance as required and shall programme his work to give a minimum of interference to other contractors. Under these conditions the Contractor must ensure that such back-filling and surplus soil as he is responsible for are kept rigidly separate from that of other Contractors also employed. The prices and rates given must include for compliance with this requirement.
13. The Contractor must note that materials should be ordered for the Contract from the working Drawings, checked where necessary from Site measurements. They may not be ordered from either the Bills of Quantities or the Tender Drawings. The contractor is solely responsible for accurate ordering of materials in accordance with the Drawings and no claim for any loss or expense will be entertained for orders for materials based upon the Bills of Quantities.
14. Metrication - All quantities are given in Metric Dimensions. However, where the changeover of production sizes has not yet taken place the Contractor may use equivalent goods manufactured to Imperial Dimensions at no extra cost to the Employer.
15. The Bills of quantities must be priced in Kenya currency, i.e. Shillings and Cents. All items in the Bills of Quantities MUST be priced and entered in “INK” against each item of work given. The word “NIL” is to be entered if no rate is required. Items not priced will be deemed to be included in other rates.
16. Definition of Abbreviation

Abbreviations used in the Bills of Quantities shall be interpreted as follows :-

“BS” Shall mean	the current British Standard Specification published by the British Standards Institution
“No.” shall mean	number
“Ditto” shall mean	the whole of the preceding description except as qualified in the section in which it occurs. Where it occurs in brackets it shall mean the whole of the preceding description which is contained within the appropriate brackets
“mm” shall mean	millimeter
“LM.” shall mean	linear metre
“SM” shall mean	square metre

“CM” shall mean	cubic metre
“n.l.t” shall mean	not less than
“n.e.” shall mean	not exceeding
“Kg” shall mean	kilogramme
“ha” shall mean	hectare
“EO” shall mean	extra over

BILLS OF QUANTITIES

Section 1: Bill of Quantities Ribbed PVC Curtains

ITEM	Description	Unit	QNTY	RATE	AMOUNT
01	Trucks/ Lorries Loading Warehouse Area	LM			
02	Wagon offloading pit Warehouse area	LM			
03	Miscellaneous and Accessories	LOT			
04	Installation	LOT			

Section 2Bill of Quantities Dust Enclosures for conveyors

ITEM	Description	Unit	QNTY	RATE	AMOUNT
01	Corrugated Galvanized Iron IT5 Gauge 26 cover dust enclosures - CV03 (CURVED) - See drawing.	LM	46		
02	Corrugated Galvanized Iron IT5 Gauge 26 cover dust enclosures - CV04 (CURVED) - See Drawing.	LM	38		
03	Miscellaneous and Accessories	LOT	1		
04	Installation	LOT			

Section 3: DESIGN, SUPPLY AND INSTALLATION OF DUST EXTRACTION & COLLECTOR SYSTEM KAJIADO TRANSHIPMENT

#	ITEM	UOM	QNTY	PRICE(KSH)
01	Outdoor dust collector as Described with associated accessories.	No.	4	
02	Ducting of appropriate size for the entire system	Lot		
03	Flexible hose	Lot		
04	Pick up hoods	No		
05	Complete Installation charges inclusive of; 1. Installation of Duct collector machines and associated accessories 2. Ducting 3. Civil work - wall opening for ducting 4. Electrical wiring and Installation, Power supply form the nearest PDP 5. Commissioning of the Dust Collection and extraction system	Lot		
06	Rotary screw air compressor Complete with air dryer, air filters and air receiver for operation of jet pulse system. Air treatment must achieve treatment classes to ISO 8573-1 (2010) class 1:4:2. - 5.4M ³ /Min - 90 Ltrs - Pressure 6-10bar	No.	1	
07	Compressed air network & piping to cover above	Lot		
	TOTALS			

Section 4: Total Costs.

	Description	Amount(KSH)
01	Section 1	

02	Section 2	
03	Section 3	
	Sub Total	
	16% VAT	
	TOTAL	