

TRAVANCORE TITANIUM PRODUCTS LIMITED

(A Government of Kerala Undertaking)
Kochuveli, Thiruvananthapuram -21, Kerala
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Date: 13.07.2021

e-Government Procurement (e-GP) E- TENDER NOTICE

Online tenders are invited by Travancore Titanium Products Ltd., Kochuveli P.O, Thiruvananthapuram - 695 021 from experienced engineering consultancy firms for executing the following work.

Re-TENDER NO: PROJ/Engineering Consultancy-APCP/RT/21-22

1.	Name of Work	Preparation of design, detailed Engineering, estimation and tender documents for the purpose of installing Air Pollution Control Plant (APCP) at various Plants facilities at TTPL, Trivandrum
2.	Estimate Amount (PAC)	Rs. 15,00,000/-
3.	Earnest Money Deposit (EMD)	Rs. 22,500/-
4.	Tender Submission Fee	Rs.2,950/- (inclusive of GST)
5.	Period of completion	4 Months
6.	Tender documents	Can be downloaded from the website www.etenders.kerala.gov.in
7.	Pre-bid meeting	26.07.2021 at 11.00 hrs.
8.	Last date and time of submission of Tender/Bids	04.08.2021 upto 12.00 hrs.
9.	Date and Time of Opening of Tender	06.08.2021 at 14.00 hrs.
10.	Form of Contract	Item rate
11.	Schedule taken	DSR 2016 with Cost index 1.3793

Re-TENDER FOR ENGINEERING CONSULTANCY SERVICES FOR DETAILED ENGINEERING DEVELOPMENT FOR INSTALLING AIR POLLUTION CONTROL PLANTS (APCP) AT TTPL

Re-Tender No. PROJ/Engineering Consultancy-APCP/RT/21-22

Dated: 13.07.2021

01. PREAMBLE

- 01.01** E-Tenders are invited in Two Part System from experienced engineering consultancy firms for preparation of design, detailed Engineering, estimation, and tender documents for the purpose of installing Air Pollution Control Plant (APCP) at various plants facilities at Travancore Titanium Products Limited (TTPL).
- 01.02** M/s Travancore Titanium Products Limited (TTPL), owned by the Government of Kerala, is the largest producer of Anatase grade TiO₂ pigment in India through sulphate route process. Airport Authority of India has requested to reduce the stack heights in TTPL for enhancing the maximum utility of their runway. TTPL has conducted a Preliminary study for suitable compliance solution for emission control as per PCB norms when reducing the stack heights in the company and decided to install Air Pollution Control Plants (APCP's) at various Plant facilities at TTPL premises.
- 01.03** This technical specification for preparation of design, detailed Engineering, estimation, and commercial tender documents for the purpose of installing Air Pollution Control Plant (APCP) at various plants facilities at Travancore Titanium Products Limited (TTPL), forms part of the tender document and shall be read in conjunction with commercial part of the tender document. These documents are complementary to each other and anything called for by one and not by the other shall be considered as binding, as if called for by one and all.

02. INTENT OF SPECIFICATION

- 02.01** These instructions to tenderers form a part of the tender document and shall be read in conjunction with invitation to tender, instruction to tenderer and other conditions of contract for supply. All these documents forming the tender document shall be as a whole comprise the complete specification. They are complementary and anything called for one and not by others shall be considered as binding, as though called for by all. In case of contradiction between technical specifications and other attached documents, data in technical specification shall govern.
- 02.02** The intent of this specification is to cover design, detailed Engineering, estimation, and tender documents, for Air pollution Control Plants (APCP).
- 02.03** The Air Pollution Control Plants (APCP's) are to be installed at the proposed locations at various plant facilities of M/s. Travancore Titanium Products Limited, Kochuveli, Thiruvananthapuram, Kerala, India. The General site data is given in **Annexure-A**.

- 02.04** Any additional equipment and materials which are not specially mentioned in the basic engineering / technical specification but are required to make the plan complete in all aspects for operation and guaranteed performance shall be under the scope of this tender.

03. SCOPE OF WORK

- 03.01** The Scope of work covers evaluation of existing basic engineering document, development of detailed engineering design, estimation, and tender documents, for installing Air Pollution Control Plants (APCP) when stack heights are reduced at various Plant facilities at TTPL premises.
- 03.02** The items covering the complete APCP for the plant to be furnished under this specification is given below.
- 03.02.01** Preparation of Detailed Project Report consisting of study and review of process technology, process flow diagrams, P&ID, material and utility balance, description of plant and equipment, proposal of services and utility requirements, etc.
- 03.02.02** Carrying out necessary on-site studies, preparation of layout of the plants based on the basic layouts provided by the company showing general arrangement of equipment, and identifying a design model best suited for TTPL, to the satisfaction of TTPL.
- 03.02.03** Detailed design and engineering: Preparation of design drawings and specifications for all non-standard equipment and ordering specification for standard and bought out items. Preparation of design drawings/specifications as applicable for mechanical equipment / civil and structural works/ electrical and instrumentation /piping /utility services/general requirements/allied works. Concurrence and approval of engineering documentation.
- 03.02.04** Identification of all packages/projects to facilitate project implementation. The agency should have previous experience in executing similar kind of projects with reputed organizations in the past and will be working in close relationship with the suppliers of the various components of APCP's - basic engineering, detailed engineering, estimation, preparation of Tender documents.
- 03.02.05** Interpretation of drawings, specifications and codes of practice wherever necessary.
- 03.02.06** Preparation of data sheet of individual APCP's with sizing of equipments with estimate report.

- 03.02.07** Preparation of civil structural design and modifications of the existing structure to accommodate the APCP's with estimate report.
- 03.02.08** Preparation of electrical, Instrumentation & control design and logics to suit the existing logic of the plant with estimate report.
- 03.02.09** Preparation of cost estimate for all the packages including civil, mechanical, electrical, instrumentation works and allied works.
- 03.02.10** Preparation and issue of drawings/specifications for APCP's.
- 03.02.11** Engineering documentation- Detailed layouts and general arrangement drawings, P&I drawings, flow diagrams, equipment design data and construction drawings, material and energy balances, list of drives, schedule of instruments, electrical wiring and line diagrams etc.,.
- 03.02.12** APCE is required to be installed in the following three areas of the Plant:-

Sulphuric Acid Plant Stack (Total 01 stack)	Volumetric flow rate of flue gases: 14500 Nm ³ /Hr (Maximum) Flue gas temperature: 62 Degree Celsius (Maximum) Acid mist concentration: 49 mg/Nm ³ (Maximum)
Digester Stacks (Total 08 stacks)	Volumetric flow rate of flue gases per stack : 16000 Nm ³ /Hr (Maximum) Flue gas temperature: 150 Degree Celsius (Maximum) Particulate matter: 74 mg/Nm ³ (Maximum) Acid mist concentration: 15 mg/Nm ³ (Maximum)
Leaching Tank Stacks (Total 04 stacks)	Volumetric flow rate of flue gases: 500 Nm ³ /Hr (Maximum) Flue gas temperature: 46 Degree Celsius (Maximum) Particulate matter: 82 mg/Nm ³ (Maximum) Acid mist concentration: 14 mg/Nm ³ (Maximum) Sulphur dioxide concentration: 21 mg/Nm ³

03.02.13 Height of the Plant building is 29.474m AMSL. The details of the stacks are:

Stack ID	1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H	6A	L3RL4R, L3AL4A, L1RL2R, L1AL2A
No of stacks	8	1	4
Attached to	Digester	Sulphuric Acid Plant	Leaching tank
Existing height (m) AGL	25.0	25.0	25
Proposed Height (m) AGL	24.157	24.328	
Diameter (m)	1.5	1.0	0.3
Flow rate Nm ³ /hr	21812	7631	500
Temperature Deg Celcius	146.25	63	46
Particulate matter g/Nm ³	249.07	84.86	
Sulphur Dioxide mg/Nm ³	268.60	229.66	21.0
Oxides of Nitrogen mg/Nm ³	19.21	28.82	
Carbon monoxide mg/Nm ³	12.50	BDL (MDL-5.0)	
Acid Mist mg/Nm ³		50.22	
Existing APCP	No APCP	Alkali Scrubbing	No APCP

04. COMPLETION PERIOD

4 Months from the date of issue of Work Order will be considered as the period of completion of Engineering consultancy services as defined by the scope of work, extendable up to six months on mutual agreement

05. PROJECT EXECUTION METHODOLOGY AND SCHEDULE

The Project Department in TTPL is having the overall charge for the successful and timely execution of the project with the assistance of the other functional departments.

05.01 Detailed engineering

The consultant shall prepare the detailed engineering, estimation report, DPR as defined by the scope of work and submit to the client within the period mentioned in the tender. The basic engineering report for the APCP to be designed, procured and installed are attached in '**Annexure- B**'

06. PROCESS DESCRIPTION

Process description of the plants are attached in '**Annexure - K, L**'

07. Drawings and documents to be submitted by the consultant after the award of the contract for approval by TTPL

07.01 Basic engineering document evaluation report.

07.02 Detailed project / engineering report.

Detailed layouts and general arrangement drawings, P&I drawings, flow diagrams, equipment design data and construction drawings, material and energy balances etc.,

- 07.03** Process Data Sheets.
- 07.04** Material and Energy Balances.
- 07.05** Equipment/Instrument data sheets.
- 07.06** List of all equipments.
- 07.07** Any other drawings and documents required for completeness of the Project.

The above list is not exhaustive. Any other drawings and documents required to make the system complete in all respects and necessary for the optimization and speedy implementation of the Project shall be submitted by the contractor.

The approval given by TTPL shall not relieve the contractor from his obligations and responsibilities as per the contract.

08. OTHER CONDITIONS

- 08.01** This is a TWO PART e-Tender with Pre-Qualification. The bidder should have necessary enrolment in the portal etenders.kerala.gov.in with their own Digital Signature Certificate (DSC) to participate in the tender. The bids shall be submitted through the said portal. The bidder shall also submit Original Tender Document, duly filled and signed along with proof of payments of Cost of Tender form and EMD, enclosures mentioned in the tender document etc, within the time stipulated in the tender notice.
- 08.02** This tender document is issued to you for submitting your lowest offer for the subject work. You are requested to quote as per the BOQ in the portal. The rates and prices quoted by the Tenderer shall be fixed and firm till the completion of the contract. The details shown against scope are only approximate and hence any reduction/increase in the quantity of work shall not violate the contract. The tenderer shall complete the work at the rates accepted even if the quantity is increased or decreased at the same rates/terms and conditions.
- 08.03** The work shall be undertaken on a continuous basis without interruption till the jobs are satisfactorily completed. Tenderer shall comply with the rules of the company for engaging men beyond normal working hours.
- 08.04** Even though a tenderer may satisfy the PQ requirements, he would still be liable to "disqualification" if he has:
 - 08.04.1** Made misleading or false representation or deliberately suppressed information in the forms, statements and enclosures required in the pre-qualification documents.
 - 08.04.2** Record of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses, etc.
 - 08.04.3** Does not possess sufficient manpower, equipment or resources as may be required for the satisfactory completion of the work now tendered.
 - 08.04.4** Indulges in any sort of canvassing/influencing.
- 08.05** The decision of the Managing Director, TTPL shall be final and binding to both parties. Managing Director, TTPL reserves the right without being liable for any damages or obligations to the TENDERER to:
 - 08.05.1** Amend the Scope and Value of the Tender.
 - 08.05.2** Reject any or all the Tenders without assigning any reason.

09. PRE-QUALIFICATION CRITERIA

09.01 Technical requirement to Bid

The bidder should possess experience of having successfully completed similar projects, the scope of work comprising of basic and detailed engineering designs, erection and commissioning of similar plants.

09.01.1	Experience	The applicant may be a Consulting firm registered in India with experience in the field of detailed engineering development for chemical industry for a minimum period of 5 years ending 31.03.2021. The firm should have multiple specialization, experience and expertise in projects in chemical process industries with design, detailed engineering development and installation of process equipments or APCPs in chemical plants. The bidder shall have experience in similar field during the last 5 years. For proof of requisite experience, the bidder shall submit satisfactory completion certificate for the work done and purchase order/ work order for the respective completion certificate in the designated cover during the last 5 years. Should have executed at least one consultancy work for chemical process plants projects costing more than Rs. 3 crore. Rs. 3 crore requirements could be submitted as completed works of one work, two works of 80% or three works of 60%.
09.01.2	Registration/ Incorporation	The firm shall be registered with registrar of companies in India and shall be in the business of providing consultancy for preparation of feasibility study/ design/ detailed engineering/Testing/ commissioning of Chemical plants or APCP installation works in chemical plants.
09.01.3	Minimum annual billing for consultancy works	The minimum average turnover from consultancy work in last 3 financial years ending on 31.03.2021 should not be less than 20 Lakhs.
09.01.4	Registration with Income Tax Authorities	Should have valid registration number issued by Income Tax Authorities.
09.01.5	Registration in GST	The valid GST number.
09.01.6	Memorandum of Association	The firm shall be enlisted as Consultancy Firm.

10. SUBMISSION OF TENDERS

10.01 The bid shall be in two parts. Part-A (Techno-Commercial bids) and Part-B: Bill of Quantity (BOQ) as detailed below.

10.02 Part-A (Techno-Commercial Bid)

The following documents have to be uploaded along with Part-A of the bid.

10.02.1 Documents verifying the claim as above including the appointment letter or Work Order and letter of successful completion from the client.

10.02.2 Proof of remittance of cost of tender form and EMD.

10.02.3 Signed copy of the tender document.

- 10.02.4** Copy of audited Balance Sheet along with Profit and Loss Account statement of the firm for the three financial years (Year 2017-18, Year 2018-19& Year 2019-20). Firms showing continuous losses for the last three years in the Balance Sheet are not eligible to participate in the tender.
- 10.02.5** Income Tax return of last 3 financial years (2017-18, 2018-19& 2019-20).
- 10.02.6** Detailed organizational structure including technical manpower with years of experience.
- 10.02.7** Copy of GST registration,
- 10.02.8** Copy of the PAN Card.

10.03 Other Documents

- 10.03.1** Copy of Memorandum of Association.
- 10.03.2** Filled and duly signed copy of **Annexures C to H**.

10.04 Part-B the Price Bid

Part-B as Bill of Quantity (BOQ) of the tender shall be uploaded as per specified format.

- 10.05** Both Part-A and Part-B shall be uploaded through e-tender portal. The last date of submission of offer will be up to **12.00 hrs** on **04.08.2021**. Part-A will be opened at **14.00 hrs** on **06.08.2021**.
- 10.06** Part-A documents shall be downloaded from the web site www.etenders.kerala.gov.in and the same shall be uploaded after duly filled wherever required, signed and affixed with seal on all pages and upload in the portal on or before **12.00 hrs** on **04.08.2021**.
- 10.07** Part-B of the tender ie BOQ (Bill of Quantity) shall be downloaded from the portal and same shall be uploaded after duly filled on or before **12.00 hrs** on **04.08.2021**. Do not send any hard copy of BOQ price part.
- 10.08** Prices quoted shall be fixed and firm till completion of the job.
- 10.09** All taxes, duties, levies or assessments of any kind at present are to be included in the quoted price. The bid shall clearly indicate incidence of taxes and duties.
- 10.10** The successful tenderer shall arrange for travel, boarding and lodging of all his men, if any and the quoted price shall be inclusive of the same.
- 10.11** Bids from bidders against whom any criminal case, investigation/report by the authorities like Vigilance, CBI etc are pending or bidders who are defaulting contractors of TTPL shall be disqualified and rejected.
- 10.12** Late tenders and conditional tenders are liable to be rejected. The company does not bind itself to accept the lowest or any tender or give any reasons for not doing so.

11. COST OF TENDER FORM AND EMD

- 11.01** Cost of tender form is Rs.2,950/- inclusive of GST@18% and EMD shall be Rs 22,500/-. The payment for cost of tender form and EMD is made together in a single transaction, only through online facility in the portal. Otherwise tender will be rejected.
- 11.02** EMD of the unsuccessful bidders will be refunded after the contract is finalized.

11.03 If any bidder retracts from or revises his bid during the validity period or fails to submit Security Deposit and execute the required agreement when the contract is awarded or fails to commence the execution of work on the stipulated work, the EMD shall be liable to be forfeited without prejudice to TTPL's right to claim damages.

12. VALIDITY

The tender shall remain valid for 90 days from the date of opening the **Financial bid (Part-B)**. No bidder without permission of TTPL can withdraw the offer or revise the quote within the aforesaid period of 90 days. If the bidder withdraws/revises/revokes or expresses unwillingness to confirm with his offer, the EMD remitted by the bidder against this tender shall be forfeited by TTPL without prejudice to TTPL's right to claim damages.

13. SECURITY DEPOSIT FOR SUCCESSFUL TENDERERS

Within 15 days issue of Work Order, the successful tenderer shall deposit a sum equivalent to 3% of total contract value towards Security Deposit. This shall be paid in the form of Demand Draft in favour of Travancore Titanium Products Limited payable at Thiruvananthapuram from a nationalized/scheduled bank. Security Deposit is also acceptable in the form of a Bank Guarantee as per TTPL Proforma, which shall be supplied on request. Bank Guarantee from Nationalized/ Scheduled Bank registered in India alone will be accepted. The Security Deposit shall be returned after satisfactory completion and acceptance of all works included in this tender unless the same is forfeited by the company for any breach or towards any amount due to the company.

14. The Tenderer shall be deemed to have full knowledge of all relevant details of the works to be executed and studied the site conditions prevailing at work site, before submitting the tender. The safety regulations applicable to the work are given in **Annexure J**.

15. After award of the contract, should it appear to the company that:

15.01 The successful tenderer is not executing the order in accordance with the contract,

15.02 The successful tenderer is not adhering to the phased programme as agreed to or that successful Tenderer is not proceeding fast enough to ensure the completion of the work by the time stipulated in the order or that such time has already expired,

15.03 The successful Tenderer has failed to carry out the reasonable instruction of the authorized representatives of the company, and

15.04 The successful Tenderer has committed any other breach of the contract,

The company may at the expense of the successful Tenderer and without prejudice to any other right of the company,

15.05 Perform itself such portion of the work as the successful tender has failed to execute,

15.06 Take the order wholly or in part from the successful tenderers' hands and re-contract to any other person(s) or cancel the order.

- 16.** The company shall not be liable for any loss to the successful Tenderer as a result of such action of the company. The successful Tenderer shall indemnify the company against all losses/damages suffered by the company and all liabilities imposed on the company as a result of default of the successful Tenderer. The decision of the company in this regard shall be final and binding on the successful Tenderer.
- 17.** Income Tax shall be recoverable from the bills of the contractor as per the provisions of Income Tax Act & Rule. All other taxes, duties etc applicable on the work shall be to the contractor's account and the company shall be in no way liable for any such items.

18. WORK WITHIN TTPL PREMISES

- 18.01** From the commencement to the completion of the work the successful Tenderer shall take full responsibility for all losses and damages if any, suffered to works, men or materials. In case of any damages, loss or injury that shall happen to the works or any part thereof or to any temporary works from any cause whatsoever the successful Tenderer shall at his own cost repair and make good in conformity in every respect with the requirement of the order.
- 18.02** The successful Tenderer shall comply on all respects with the provisions of any, ordinance, law, rules, regulations or bylaw of any local or other duly constituted authorities etc which may be applicable to the work. The successful tenderer shall comply with the provisions of the contract Labour Regulation, Abolition Act and all other applicable laws.
- 18.03** The successful Tenderer shall pay all taxes, duties, levies, royalties, rent or other payment or compensation if any, for getting any materials required for the works.
- 18.04** The successful Tenderer shall be responsible for the good conduct, competence, proper and prompt performance of the labourers employed by him.
- 18.05** In respect of all labour directly or indirectly employed on the works, the successful Tenderer shall comply with all rules and regulations of Government or other local authorities.
- 18.06** The successful tenderer shall take insurance cover in respect of materials brought and the employee engaged by them.
- 18.07** Notwithstanding anything contained in the technical specification, the successful tenderer shall undertake any other item of work not specially mentioned but is required to complete the work in all respect without any extra cost.

19. TERMS OF PAYMENT

- 19.01** Advance payment - 10% of the contract price as advance shall be paid on submission of Bank Guarantee for an amount equal to 100% of the advance amount from a nationalized bank.

19.02 On submission of detailed engineering report- 50% of the contract amount shall be paid against submission of detailed engineering report.

19.03 On submission of Tender documents- 40% of the contract amount shall be paid on final acceptance of DPR and submission of tender documents.

20.04 All payments are made, after deducting there from income tax and other amounts as may be deductible or recoverable in terms of the contract or the laws in force.

20. AGREEMENT

The liability of the successful bidder under this bid will commence on the date specified in the Letter of Intent (LOI)/ Work Order (WO). The successful bidder shall be required to execute an agreement with TTPL within 15 days of issue of Work Order by TTPL for carrying out the work according to the terms and conditions of the contract given along with Work Order. The agreement shall be executed on non-judicial stamp paper worth Rs.200/- and shall be in the Proforma as specified by TTPL. The provisions contained in the tender papers and other documents exchanged between the bidder and TTPL shall form part of the contract. The EMD is liable to be forfeited in case the contractor fails to execute the Agreement within the stipulated period as mentioned above.

21. VALUATION OF VARIATION

If the Contractor has been asked to execute any such item/work in course of contract for which the tender rates have not been quoted, he must undertake such work. The Purchaser and contractor shall determine the rates for such additional work by mutual negotiation, however, prior to commencement of extra work.

22. LIQUIDATED DAMAGES

If the Contractor fails to complete the work within the period of completion, the Contractor shall pay or allow the Client to deduct the sum equivalent to 0.1% of the contract value per week or part thereof of delay subject to a maximum of 10% of contract value as liquidated and ascertained damages for the period from the date of stipulated completion or such extended time as the case may be during which the work shall remain unfinished. Such damages may be deducted by the Client from any money due or that may become due to the Contractor.

23. JURISDICTION

Any legal dispute arising out of or in any way connected with this contract shall be deemed to have arisen at site and shall be settled in a court of competent jurisdiction located in Thiruvananthapuram, Kerala.

24. The company reserves the right to reject any or all tender or to accept any tender or wholly without assigning any reasons whatsoever. No claim shall lie against TTPL on this account and TTPL's decision in this regard shall be final and binding on the bidders. TTPL reserves the right to obtain any clarifications and documents on the Part-A of the bid. Part-B of those bidders will be opened only when Part-A bids of those bids were made acceptable.
25. Any corrigendum/addendum/extension of bid opening date and cancellation of NIT will be published through our web site www.travancoretitanium.com / www.etenders.kerala.gov.in only and not through newspaper. The bidders are requested to visit our web site regularly for any corrigendum/addendum/extension till opening of the bid.
26. The bidders who submit their bids for this tender after digitally signing using their Digital Signature Certificate (DSC), accept that they have clearly understood and agreed the terms and conditions in the web site including the terms and conditions of this tender.
27. Our general condition of contract and safety regulations attached at **Annexure I&J** will be observed by the bidder for this work, to the extent applicable to him.

Yours faithfully,
FOR TRAVANCORE TITANIUM PRODUCTS LIMITED



General Manager (Technical) i/c

DECLARATION

I hereby declare that I have perused in details and examined closely the detailed standard specification, all clauses of the preliminary specification and have also examined all the standard specifications for items for which I tender before I submit such tender and agree to bound/comply with all such specifications for all agreements which I execute with the Company. I have signed as below in acknowledgement thereof.

Date:

Name of Tenderer or Contractor

Address of the Tenderer or Contractor:

Signature of Tenderer or Contractor: