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GSTIN : 36AAJCS6111J2Z8

PR Number	PR Date	Indenter	Department
12004156	20.01.2022	PONNUKALAI	ASSAY

Not Transferable

Security Classification:

**TENDER DOCUMENT FOR PURCHASE OF: SUPPLY,  
INSTALLATION, COMMISSIONING & TRAINING OF AQUA REGIA  
GOLD REFINING PLANT WITH INQUARTATION**

**Tender Number: 6000017203/71/ASSAY, Dated: 31.01.2022**

This Tender Document Contains \_\_\_\_\_ Pages.

Details of Contact person in SPMCIL regarding this tender:

**Name:** RAJKUMAR R  
**Designation:** Manager (MM)  
**Address:** IGMH (India Government Mint, Hyd)  
India

## Section1: Notice Inviting Tender (NIT)

6000017203 /71/ASSAY

31.01.2022

(SPMCIL's Tender SI No.)

(Date)

1. Sealed tenders are invited from eligible and qualified tenderers for supply of following goods & services:

Sch d. No.	Brief Description of Goods/services	Quantity (with unit)	Earnest Money (In Rupee)	Remarks
1	Aqua Regia Refining 20 +20 with inquarta	1.000 EA	306000.00INRTHREE LAKHS SIX THOUSAND ONLY.	QUOTATION RECEIVED THROUGH E-MAIL OR FAX SHALL NOT BE CONSIDERED.
Type of Tender (Two Bid/ PQB/ EOI/ RC/ Development/ Indigenization/ Disposal of Scrap/ Security Item etc.)			TWO-BID National Competetive Bid EXPRESS	
Dates of sale of tender documents:			From 31.01.2022 to 18.02.2022 during office hours.	
Place of sale of tender documents			SPMCIL WEBSITE, CPP PORTAL	
Closing date and time for receipt of tenders			18.02.2022 14:45:00	
Place of receipt of tenders			INDIA GOVERNMENT MINT, HYDERABAD	
Time and date of opening of tenders			18.02.2022 15:00:00	
Place of opening of tenders			INDIA GOVERNMENT MINT, HYDERABAD	
Nominated Person/ Designation to Receive Bulky Tenders (Clause 21.21.1 of GIT)			RAJKUMAR R Manager (MM)	

2. Interested tenderers may obtain further information about this requirement from the above office selling the documents. They may also visit our website mentioned above for further details.

3. If requested, the tender documents will be mailed by registered post/ speed post to the domestic tenderers and by international air-mail to the foreign tenderers, for which extra expenditure per set will be Rs.500/- for domestic post.

4. Tenderer may also download the tender documents from the web site <http://igmhyderabad.spmcil.com> and submit its tender by utilizing the downloaded document.

5. Tenderers shall ensure that their tenders, duly sealed and signed, complete in all respects as per instructions contained in the Tender Documents, are dropped in the tender box located at the address given below on or before the closing date and time indicated in the Para 1 above, failing which the tenders will be treated as late and rejected.

6. In the event of any of the above mentioned dates being declared as a holiday/ closed day for the purchase organization, the tenders will be sold/ received/ opened on the next working day at the appointed time.

7. The tender documents are not transferable.

8. All other terms and conditions of NIT (including GIT, GCC & SCC) shall be remaining as per this tender document.

9. General instructions to tenderer (GIT) and General Conditions of contract (GCC) shall also form a part of this tender document. For details regarding GIT and GCC please refer links as below.  
<http://www.spmcil.com/spmcil/uploaddocument/git.pdf>  
<http://www.spmcil.com/spmcil/uploaddocument/GCC.pdf> Section -I to XIX: applicable, Except Sections: XIII, XVIII & XIX Section- XIII Bank Guarantee form for EMD: Not Applicable Section- XVIII Shipping Arrangements for liner cargoes: Not Applicable Section- XIX Proforma of bill for payment: Not Applicable. For 'SPMCIL' read as 'India Government Mint, Hyderabad' & for 'forty five days' read as 'sixty days' in section XV & XVI of this Tender Document.

10. Tender Document, duly signed, must be sent along with your offer with clear mention of your valid GST registration No.

11. Bidder to furnish stipulated documents along with tender in support of fulfillment of tender criteria. Further correspondence in this regard will not be entertained. Non-submission or incomplete submission of documents may lead to rejection of offer.

12. The guidelines issued vide office Memorandum No. DPE/7(4)/2007-Fin. Dated 06.12.2012 issued by the Ministry of Heavy Industries & Public Enterprises, D.O.No.21(1)/2011-MA dated 25.04.2012 and letter F.No.21(8)/2018-MA dated 09.11.2018 issued by the Ministry of Micro, Small & Medium Enterprises and letter No. NSIC/HO/BD/66/PPP/1415 dated 23.01.2015 issued by National Small Industries Corporation Ltd as follows:

#Micro & Small Enterprises are eligible to get the benefits under Public Procurement Policy for Micro & Small Enterprises (MSEs) Order 2012" as notified by the Government of India, Ministry of Micro, Small & Medium Enterprises, New Delhi vide Gazette Notification dated 26.03.2012 (Traders are exempted from purview of this policy).The major benefits allowed are as under:

a) Issue of Tender Sets free of cost.

b) Exemption from payment of Earnest Money Deposit (EMD).

c) In Tender participating MSEs quoting price within price band of L1 + 15% shall also be allowed to supply at least 25% of requirement by bringing down their price to L1 price where L1 is non-MSEs. Further out of this requirement of at least 25% procurement from MSEs, 4% is earmarked for units owned by Schedule Caste/Schedule Tribes and 3% reservation for Women owned MSEs. In case no SC/ST and Women owned MSE is a responsive tenderer then whole procurement shall be made from responsive MSE fulfilling the above mentioned conditions.

However, it cannot be split as the procurement is for one number of unit. therefore, the clause (c) would imply that in case non MSE firm is L1 and MSE firm quotes within L1+15% band then MSE firm will be asked to match the L1 price; if matched, whole order will be placed on MSE firm.

Note: Firm must submit a valid UDYAM registration certificate for the tendered item (which clearly indicates the status of firm) in order to be eligible for MSEs benefits.

13. Preference to Make In India products (For bids < 200 Crore): Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs.10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

14. Any Security Breach of Contract leads to;

a) Termination of Contract b) Payment of damages

(R Rajkumar)  
Manager (MM)  
For General Manager India Government Mint Hyderabad  
Telephone No. 040 27268300(Extension: 122)



Tender Number:6000017203

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(Name Designation, Address telephone number etc  
of the officer signing the document)

For and on behalf of

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## **Section II: General Instructions to Tenderers (GIT)**

### **Part 1: General Instructions Applicable to all type of Tenderers**

Part. I. Refer to our Website: <http://www.spmcil.com/spmcil/uploaddocument/git.pdf>

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## **Section II: General Instructions to Tenderers (GIT)**

### **Part II: Additional General Instructions Applicable to Specific type of Tenderers**

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Part.Part II. Refer to our Website: <http://www.spmcil.com/spmcil/uploaddocument/git.pdf>

### Section III: Specific Instructions to Tenderers (SIT)

The following Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/ substitute/ supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below:

In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

(Clauses of GIT listed below include a possibility for variation in their provisions through SIT. There could be other clauses in SIT as deemed fit.)

Sr No	GIT Clause No.	Topic	SIT Provision
07	11.2	TENDER CURRENCY	Supplier is requested to quote price within 2 Decimal place.
14	18.4, 18.5	EARNEST MONEY DEPOSIT (EMD)	Refer to section VI.
15	19	TENDER VALIDITY	120 days from the date of opening of Techno-commercial Bid.
16	20.4	NUMBER OF COPIES OF TENDERS TO BE SUBMITTED	one.

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## **Section IV: General Conditions of Contract (GCC)**

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Part I Refer to our Website: <http://www.spmcil.com/spmcil/uploaddocument/GCC.pdf>



## Section V: Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below. These Special Conditions will modify/ substitute/ supplement the corresponding (GCC) clauses.

Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

(Clauses of GCC listed below include a possibility for variation in their provisions through SCC. There could be other clauses in SCC as deemed fit)

Sl.No	GCC Clause No.	Topic	SCC Provision
02	6.1, 6.3 & 6.5	PERFORMANCE BOND/ SECURITY	The supplier shall furnish security deposit to SPMCIL, for an amount equal to 3% of the total value of the contract and valid up to sixty days beyond the date of completion of all contractual obligations including warranty period by the supplier.
03	8.2	PACKING AND MARKING	At supplier's cost.
05	11.2	TRANSPORTATION OF DOMESTIC GOODS	At supplier's cost.
06	12.	INSURANCE	At supplier's cost.
09	16.2, 16.4	WARRANTEE CLAUSE	The firm should provide standard warranty of not less than one year from the date of issue of FAC.
12	21.	TAXES AND DUTIES	As applicable.
13	22.	TERMS AND MODE OF PAYMENTS	100% payment will be paid against the satisfactory completion of supply of machine and completion of work i.e. supply, installation, commissioning, testing and after successful demonstration of operation of the Aqua Regia Gold Refining Machine at IGMH and issue of FAC by Mint authorities.
14	24.1	QUANTUM OF LD	If the supplier fail to deliver any or all of the goods or fail to perform the services within the time frame(s) incorporated in the contract, IGM, Hyderabad shall, without prejudice to other rights and remedies available to IGM, Hyderabad under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to the 0.5% of the delivered price of the delayed goods and/or services for each week of delay or part thereof until actual delivery or performance, subject to a
15	24.1	QUANTUM OF LD	maximum deduction of the 10% of the delayed goods' or services' contract price(s).
19		SHORT CLOSURE CLAUSE	India Government Mint, Hyderabad reserves the right to short close the contract upon any change in requirement of IGMH on design/specification, National consideration, user requirement and indent etc. In addition to the GCC Clause 29.

## Section VI: List of Requirements

Schedule No.	Breif Description of goods and services (Related Specifications etc.are in Section-VII)	Accounting Unit	Quantity	Amount of Earnest Money	Remark
1	Aqua Regia Refining 20 +20 with inquarta	EA	1.000	306000.00IN RTHREE LAKHS SIX THOUSAND ONLY.	QUOTATION RECEIVED THROUGH E-MAIL OR FAX SHALL NOT BE CONSIDERED.

### Terms & Conditions:

1.Quotation shall be submitted on or before scheduled time as mentioned in NIT (Section 1), in a sealed cover duly super scribing the Tender No and due Date of Opening.

2.Tender should contain two separate sealed envelopes containing:

i)Envelop 1: Duly super scribing: Part -1 Techno-commercial bid and should contain

a)Micro and Small enterprises registration certificates of UDYAM/NSIC/DIC/SSI/Start-up for tendered items

b)Submitted EMD (Earnest Money Deposit).

c)Signed Tender document as a token of acceptance of terms & condition of the tender document,

d)Make in India declaration,

e)Signed & filled Tender form: Section X (without price)

f)Signed & filled Questionnaire: Section XII,

g)Manufacture Authorization form: Section XIV (or) OEM Certificate,

h)Supporting document as per Section IX (Qualification/Eligibility criteria)

i)Supporting document pertains to Technical specifications, other technical information of machinery and acceptance of Delivery period, payment terms, warranty, L.D etc.

j) Vendor has to submit Sketch of the Plant with 3 D modeling along with the Technical Bid so that we can verify the capability of the vendor.

ii)Envelop 2:Duly super scribing: Duly super scribing: Part-II and should contain only Price Bid as per section XI (Price Schedule)

3. The above both sealed envelopes should be kept in One single sealed cover duly super-scribing the tender No. and due date of opening.

4.No price should be revealed in Techno-commercial bid.

5.Earnest Money Deposit should be enclosed in Techno-commercial bid only.

6.Price bids of those firms who qualify in Techno-commercial bid will only be opened. Accordingly, the opening date of the Price bids will be intimated to the firms.

7.Authorized representative of the bidder, who wishes to attend the bid opening, need to submit the authorization form which is available with the tender document while attending the tender opening.

8.Contract & Delivery Period: The delivery period for the supply of material is 2 months and one month for installation, commissioning & testing of the equipment at the premises of India Government Mint, Hyderabad from the date of issue of NAC/P.O. whichever is earlier.

### 9.EARNEST MONEY DEPOSIT:

The required Earnest Money Deposit for the above tendered items is Rs. 3,06,000 (Rs.Three lakhs six thousand only) shall be submitted along with tender in Techno-Commercial Bid.

The EMD shall remain valid for a period of 45 days beyond Bid Validity i.e., 120+45 = 165 days after the date of opening of the tender. Any short validity, the tender shall be treated as unresponsive and rejected. The EMD should be in Indian Rupees only. Successful tenderer's EMD will be returned without any interest, after the receipt of Performance Security from the tenderer. Unsuccessful Tenderers EMD will be returned to them without any interest, after expiry of the tender validity period.



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The firm who are registered under Udyog Aadhar Memorandum (UAM) as Micro & Small Enterprises (MSEs) for Manufacturing/Selling, National Small Industries Corporation (NSIC), District Industrial Centres (DIC), Small Scale Industries (SSI) for Manufacturing/Selling of TENDERED ITEM may be exempted from submitting the EMD subject to the submission of valid certificate(s) during the tender validity period.

EMD must be furnished along with the tender in the form of Demand Draft/Fixed Deposit Receipt/Banker's cheque denominated in Indian Rupees drawn on any Scheduled Commercial Bank, in favour of India Government Mint, Hyderabad payable at Hyderabad.

## Section VII: Technical Specifications

AQUA REGIA GOLD REFINING PLANT 20+20 with inquantation..... 1EA

AQUA REGIA GOLD REFINING PLANT 40 kgs per shift with reactors of 20kgs x2 with additionally inquantation reactor of volume 120 Liter to cater the gold with more than 10% silver in raw gold alloy. It can also be used refining of gold of low purity.

# Installation and Commissioning of the Plant at IGMH Site

# The bidder is encouraged to visit the site and give a complete offer for a Turnkey Plant. If some items are not indicated below, the same should also be included as a optional item

Vendor has to submit Sketch of the Plant with 3 D modeling along with the Technical Bid so that we can verify the capability of the vendor.

Inability to submit the same along with Technical bid will be a disqualification for vendor.

### A OVERALL SCOPE OF THE SUPPLY BY VENDOR

# Complete Aqua Regia Gold refining plant on above design basis with capacity 20 Kg/Batch x 2( Input )- complete with structure to install. The plant should be able to operate at a minimum capacity of 20% ( 4 kgs x 2 ) with additional INQUARTATION reactor of 120 Lit capacity with filter set. Consisting 2 no.s of Silver chloride filter of 120 Liter loading Volume and 2 no.s of Gold Filter of loading Volume 220 liter

# 2 x Silver chloride filter with transfer pumps and 2 x gold filter with Pump and piping to facilitate re-circualtion and changeover after filtration.

# Utilities or required specifications mainly, Hot water generator, chiller and compressor to take care of aqua regia both the reactors heat up and chillers for reflux condenser. Compressor to take care of operating pneumatic pumps and valves wherever applicable.

# Additional Aqua regia Reactor, Gold precipitation reactor, and associated piping. (Condensers and vent piping, as well as feed acid piping will remain common.)

# Day tank mounted on the plant structure to provide acid feeds to Aqua Regia reactor, along with piping and suitable valves.

# Separate pumps for feeding Nitric acid and HCl from storage to Day tank, along with suitable piping.

# Inquantation reactor (120 ltr) in Glass with additional filter

### SCRUBBER SECTION

# Oxidation Scrubber Tower with Tank, Pump Packing's PREFERABLY with Venturi as primary stage scrubber and secondary will be packed tower.

# Central Double Fume Scrubber (First with Hydrogen peroxide and second with caustic soda/ urea) with Tank, Pump, and Blower.

# Suitable Heat exchanger to take care of absorbing heat of neutralisation of acidic fumes and thereby maintaining the right scrubber efficiency.

# Supply of cooling water lines, from the central cooling tower

# Supply of effluent disposal and vent systems.

### B IGMH'S SCOPE OF WORK

# Transport, off-loading and storage of SELLER's equipment within the project site.

# Supply of utilities and services as specified for the operation of the plant, based on the specification given by the vendor . This includes cooling water, process water and power only

# Design and supply of any electric cable transformers, switchgear, circuit breakers, distribution equipment and fuse board requirements.

# IGMH would ensure clean room for operation of the plant.

### C GENERAL REQUIREMENTS

1. Operator friendly

2. No release of NOx gases or other poisonous gases in working atmosphere

3. Proper Treatment Plant to be provided for gaseous emissions of Refining Process.

4. Should have a proper Gold / Precious Metals Resin Based recovery system from Effluents and washings before

feeding to ETP

5. After Resin based recovery there should be one additional storage PP tank of 1000 liter with exhaust and a high rise out let for gases
6. Proper Effluent Treatment System to recover all base metals from effluents through proper treatment and separation through Filter press or better mechanism. This includes settling tank, mixing tank, and pump with Filter press for final discharge
7. The output water released should comply with India's Pollution Control Norms
8. The process Loss should be below 0.1 % or better
9. Handling/ Addition of Sodium Meta bi sulphite, Nitric Acid, Hydrochloric Acids Needs stepwise addition facilities and can be set as per operator convenience.
10. Suitable Drying Oven should be provided to dry the refined powder of 40 kgs or better and there should be no loss during drying
11. ORP meters to be provided in Reaction Vessels and effluent storage and treatment tanks

#### D. DESIGN PARAMETER FOR PLANT

- # Plant should be capable of performing continuous trouble free operation with full efficiency under the given atmospheric conditions for 16 hrs a day
- # Plant should be supplied with all standard accessories.
- # Plant should have all adequate safety features.
- # Sub assembly used in the Plant should be easily dismantled and assembled for easy way of repairing / maintenance.
- # There should be dash board on operation of the Plant and indicate various critical parameters and provide alarm signals.
- # Emergency by pass system should be provided.
- # The scrubber and ETP should be designed with factor safety of 1.25.
- # The plant should be suitable to the Indian environment. IGMH would ensure clean room for operation of the plant.
- # The vendor should specify requirement of the Clean room.

#### E. SPECIFICATIONS OF INDIVIDUAL ITEMS

Reaction Vessel for raw gold dissolution.

Aqua Regia Glass cylindrical vessel, capacity minimum 100L X 2 no.s ( quantity 2 no.s) graduated including nozzles for:

- I. Grain loading stationary basket
- II. Aqua Regia feed
- III. Bottom outlet
- IV. Vapour out let
- V. Thermometer pocket
- VI. Titanium coil for Hot water circulation.
- VII. Glass thermometer pocket
- VIII. Bottom outlet valve preferably with pneumatic operation for open and close

#### 2. Reaction Vessel: Gold Precipitation

Gold precipitation Glass cylindrical vessel, capacity minimum 200L x 2 ( quantity 2 no.s) graduated including nozzles for:

- I. Aqua regia feed
  - II. Bottom outlet
  - III. Vapour out let
  - IV. Dip tube for pH probe
  - V. Meta Bisulphite charge with quick release coupling Quantity # 2 nos
  - VI. Bottom outlet valve preferably with pneumatic operation for open and close
3. Agitator assembly: Complete with stirrer/motor in the Gold precipitation vessel. Quantity#2 nos. The stirrer shaft and impeller to be compatible in working in highly acidic environment.
4. Heat Exchanger for Gold precipitation reactor (I) and (II) - Glass coil type condenser with connecting glass piping.
5. Cooler cum cyclone separator
- Glass coil with tangential entry point of vent gas with dip pipe for breaking velocity and collecting the escaped traces

of gold/precious metal particles.

6. Gas Scrubber: (Oxidation)

- i. Plastic tank with appropriate nozzles - Cap. 500L minimum
- ii. Packed column (packed with suitable high efficiency rings)
- iii. Column internals like packing support, liquid re-distributor, spray feed arrangement
- iv. Primary stage venturi for negative suction and vent gas scrubbing.
- v. Magnetic drive pump for circulating scrubbing solution in tower and venturi. MOC- PP/Pvdf

7. Gas Scrubber: (CENTRAL AND NEUTRALISATION)

- I. Plastic tank with appropriate nozzles \_ Cap. 1000L minimum
- II. Packed column (packed with suitable high efficiency rings)
- III. Column internals like packing support, liquid re-distributor, spray feed arrangement
- IV. BLOWER / EJECTOR. - As required
- V. Magnetic drive pump for circulating scrubbing solution in tower

8. Plate type Heat exchanger for cooling scrubbing liquid for better efficiency of scrubbing. The Material of construction of Heat exchanger should be compatible to handle fluids from acidic to Basic pH solutions/salts.

9. Filter for Silver chloride separation:

- i. Cylindrical PP vessel - Overall capacity 120 lit volume minimum
- ii. Bottom PTFE dish with filter media
- iii. PP pneumatically operated PTFE diaphragm pumps for transfer of liquid

10. Filter for Gold separation:

- I. Cylindrical PP vessel Overall capacity 220 lit volume minimum
- II. Bottom PTFE dish with removable filter media
- III. PP pneumatically operated PTFE diaphragm pumps for transfer of liquid

11. Interconnecting piping / valves

- i. Interconnecting process pipe lines and valves of appropriate sizing for the whole system within seller's battery limit of Glass/PP wherever applicable
- ii. Reinforced plastic (Highly corrosive resistant material) backing flange, Nut bolts, PTFE 'O' rings, compression springs for the complete system

12. Scaffolding:

Tubular supporting structure with MS epoxy coated pipe and WCB epoxy coated structural accessories

13. Instrumentation:

- I. Panel: Conventional Non flame proof control panel to IS standards along with digital temperature indicators (1 nos. reactor and temp. at scrubbing unit), stirrer speed controller, rpm indicator, start / stop button to be installed. Suitable sensors and Alarm for fault indication, Safety warning.
- II. Smooth finish FRP aesthetic panel for VFD & electrical accessories to be installed near the structure.
- III. Rota meter, flow control device with On/Off indicator signal provision to be remote and local indication near the scrubber Pump.

14. Hot water Generator sufficient to generate reaction temperature of 70-75 deg C in reactors and relevant control system, of ON/OFF , cut off and control of process temperature

15. Chiller unit sufficient to circulate chilling fluid @ 7 degC in condensers relevant control system, of ON/ OFF , cut off and control of process temperature

16. Primary Venturi Scrubber with PP Magnetic pump for suction and first stage scrubbing.

17. Oxidation Scrubber, Suitable Diameter, with Tank Pump, column internals, distributors and re-distributors.

18. Tail Gas Scrubber, Suitable Diameter, with Tank Pump, column internals, distributors and re-distributors.

19. Two feed Tanks for acid and separate pumps for acid feed, its associated piping and instrumentation.

## E. QUALITY STANDARDS

1. The borosilicate glass will be of 3.3 expansions and shall confirm to following standards:

- BS EN 12585:1999 Glass plant, pipeline & fittings, compatibility & interchangeability
- BS EN 1595: 1997 General rules for design, manufacture & testing.

2. Glass Flange End Form (Buttress Ends)

3. Ground face

4. 65O taper shoulder End form \_ flat, ball or socket as applicable.



### 3. Glass Nozzles

- I. All glass process equipment and vessels are provided with suitable sized nozzles as per process requirements.
- II. Spare nozzles are provided where necessary and feasible.
- III. All spare nozzles shall be coupled with matching glass closures.
- IV. Appropriate nozzles are also provided for the installation of monitoring instruments / sensors.

### 4. Couplings (Backing Flanges)

- I. Reinforced Coupling Flanges.
- II. The flange standard shall be international
- III. Appropriate and matching standard flanges shall be provided for coupling the monitoring instruments (PI, TI etc.) to the glass eqpt. / pipeline.
- IV. Nuts, Bolts, Compression Springs shall be of international quality.

### 5. Gaskets

- I. High quality PTFE 'O' ring collar type for glass to glass connections.
- II. High quality PTFE envelope type of gasket for glass to non-glass connections.

### 6. Support Structure

- # Glass assemblies and process equipment to be housed in steel tubular supporting structures.
- # Various standard structural elements should be designed such that any type, dimension and configuration of glass assembly can be installed with relative ease.
- # The MOC of the steel tubes used for the structure would be Epoxy coated MS
- # The MOC of the structural accessories used would be Epoxy coated WCB
- # Structure of the glass assembly would be supported to a rigid member.

### F. ERECTION AND COMMISSIONING OF MACHINE:

The supplier shall provide necessary guidance/assistance in erection and commissioning, and will be responsible for successful erection and commissioning of the Plant at site. All necessary assistance like fork lifter, crane and manpower will be provided by IGMH for shifting the Plant to the site.

All civil works will be done by IGMH based on foundation drawing given by supplier. The detailed foundation/erection drawings shall be provided along with supply order acceptance.

### G. POWER AND WATER SERVICES:

AVAILABLE INPUT POWER SUPPLY AT SITE: The power supply available at the site, is 415V  $\pm 10\%$ , 50 Hz  $\pm 2\%$ , 3 Phase AC. Power requirement of the Plant to be indicated. RO water with TDS 20 ppm (1000 lt/ hour) will be provided. If any specific Water supply is required, the same may be indicated.

H. TWO YEARS RUNNING SPARES: A separate quotation shall be offered for two years running spares (Mechanical, Electrical and Miscellaneous) for all the units and sub-units of the plant. For this purpose, Plant run time of 16 hrs a day shall be considered by the supplier. This will be quoted as Optional Item. Technical Visit Charges per visit may be indicated by the firm, which should be the maintained by the firm for next 5 years, adding the inflation, for which extra payment can be done for inflation factor.

### I. LIST OF ESSENTIAL DOCUMENTS TO BE SUPPLIED WITH THE MACHINE:

The vendor should submit the sketch of the facility, Line diagram with 3D drawing of installation setup, Layout details and space requirements along with the offer. And later after the order stage wise to submit the following.

- # P&ID for the complete system.
- # General Arrangement and dimensional drawings.
- # Detailed parts list and Bill of Materials.
- # Itemized spare parts lists for two yrs. of operation.
- # Manual and warranty certificates for bought out equipment like motors, gearbox, mechanical seal etc. and general plant operations.
- # Operation Manual with complete operating instructions of startup and shut down procedures, as well as routine operation and maintenance techniques along with troubleshooting procedures.

### J. COMMON PREVENTIVE MAINTENANCE SCHEDULE:

Supplier shall provide Common Preventive Maintenance Schedule for the entire unit/sub unit (like bar feeder, fume cleaner/extractor, chip conveyor hydraulic unit etc.) indicating all point of preventive maintenance (quarterly,

Half-yearly, and yearly). IGMH shall carry out preventive maintenance as per aforesaid preventive maintenance schedule.

However, firm should make available a competent Service Engineer at IGMH for facilitating aforesaid preventive maintenance activities in the first 3 months of running.

Firm should facilitate render free technical advice on any matter of the Plant in the warranty period.

#### K. REPLACEMENT SCHEDULE FOR SPARE PARTS:

Supplier shall provide the schedule for consumables predictable/no predictable spare parts detail for the Plant Supplier shall provide the Activity Schedule for the Plant operator before and after operating the machine. The detailed foundation/ erection drawings and important instructions like DOs and DONTs for transportation, handling, loading and un-loading of the Plant shall be provided along with supply order acceptance.

If any spare/bearing/oil seal /'o' ring has been used more than one number in machine, list with total quantity should be given with technical details in the relevant maintenance manual.

Specification of all types of greases, oils and lubricants etc. required to be used in the Plant indicating source of supply shall be provided.

The entire documentation shall be in English.

#### L. TRAINING OF PERSONNEL:

It will be necessary to impart training in English/ Hindi language to at least six persons each group belonging to the Purchaser's organization in the discipline of: Electrical and electronics maintenance, Mechanical maintenance, separately and on the additional topics as felt necessary by the supplier. The duration of such training shall not be less than 05 working days at IGMH and 05 days duration shall be counted after successful Commissioning and Proving Trials.

#### M. VERIFICATION OF CAPABILITY OF THE VENDOR:

# The vendor should have supplied similar equipment to Indian customers and should be in operation for at least one year.

# IGMH reserves the right to verify the quality of the equipment supplied by the vendor and reject the offer based on the feedback from the customers.

#### N. TESTING OF THE PLANT:

# The Plant will be tested for 3 days or less (We will be testing for less days, only if we do not have sufficient Gold at the time of Testing) for Two shifts operations.

# The process loss of the plant should be less than 0.1% in the three months running period, failing which the plant will be rejected.

# All Chemicals for Testing will be provided by vendor during the Test Run.

# The Effluent will be tested to Environment Test Norms.

# The test shall be conducted for various grades of Gold.

# If there is some major problem, the plant will be re-tested for another run of 3 days for second time. If it fails in the second time for any major fault, the Plant will be rejected.

# The vendor should supply test certificates with respect to critical items from a reputed laboratory, preferably NABL accredited.

#### O. FLOOR SPACE AREA will be indicated by the firm.

Note: Bidder should clearly mention Make & model of the tenderer equipment in techno-commercial bid.



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## **Section VIII: Quality Control Requirements**

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The quality control requirement shall be in line with section VII: Technical specification.

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## Section IX: Qualification/Eligibility Criteria

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### 1. Experience & Past Performance:

The bidder shall be a manufacturer that has regularly for at least the last three years manufactured, supplied, erected, commissioned similar Chemical Reactors suitable for refining with concentric Acids such as HCL and H<sub>2</sub>SO<sub>4</sub>, Volume of each reactor should be able to take 2X 20 Kgs of at least one number in last five years ending on the previous day of tender opening. At least one number of the product offered for supply should be in successful operation for at least one year on the date of bid opening.

### 2. Capability, Equipment & Manufacturing Facilities:

The bidder firm must have an annual capacity to manufacture and supply similar Chemical Reactors suitable for refining with concentric Acids such as HCL and H<sub>2</sub>SO<sub>4</sub>, Volume of each reactor should be able to take 20 Kgs.

### 3. Financial Standing:

a) Average Annual Turnover of the Bidder firm during last three years up to Financial Year ending on 31.03.2021 should be more than Rs.61.20 lakhs.

b) Bidder Firm should not have suffered any financial loss for more than one year during the last three years up to Financial Year ending on 31.03.2021.

c) The net worth of the firm should neither be negative nor eroded by more than 30% in the last three financial year ending on 31.03.2021.

Note: Firms should submit CA certified balance sheets for the last three FY (2018-19,2019-20 & 2020-21) to fulfill Financial Standing point's b & c.

4. Firms which come under Micro & Small Enterprises are exempted from Experience & Past Performance (Point No.1) and Financial Standing (Point No.3a) of qualification and eligibility criteria subject to submission of valid MSE registration certificate for tendered item, which should be valid at least during the validity of tender.

### Note:

1.All experience, past performance and capacity/capability related/date should be certified by the authorized signatory of the bidder firm. The credentials regarding experience and past performance to the extent required as per eligibility criteria submitted by bidder may be verified from the parties for whom work has been done.

2.Audited copy of Balance sheet and profits & loss Account statements of last three financial years i.e. FY, 2018-19,2019-20 & 2020-21.

3.Copies of work orders/award letters along with certificates of successful completion of the similar job/ services executed by the bidders during last 5 years ending on the previous day of tender opening date as a supporting document shall be attached with Techno-Commercial bid.

4.IGMH reserves the right to cross check the documents from the issuing department. The certificate of successful completion should also contain the details of work order, duration of the contract, quantum of business done and its satisfactory completion.

5.Acceptance to all term and condition of the tender without any deviations to be given

6. Tender has to be submitted with contract address and e-mail ID etc. duly filled and signed.

7.Bidder has to furnish stipulated documents in support of fulfillment of qualifying criteria. Non-submission or incomplete submission of documents may lead to rejection of offer.

8.All financial standing data should be certified by certified accountant's e.g. Chartered Accountants (CA). Bidder to furnish stipulated documents in support of fulfillment of qualifying criteria. Non-submission or incomplete submission of documents may lead to rejection of offer.

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## Section X: Tender Form

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Date:

To,  
India Government Mint, Hyderabad  
A Unit of Security Printing & Minting  
Corporation of India Limited  
(Wholly Owned by Govt. of India)  
Hyderabad

Ref: Your Tender document No.6000017203 /71/ASSAY dated 31.01.2022

We, the undersigned have examined the above mentioned tender enquiry document, including amendment No....., dated..... (if any), the receipt of which is hereby confirmed. We now offer to supply and deliver ..... (Description of goods and services) in conformity with your above referred document for the sum of ..... (total tender amount in figures and words), as shown in the price schedule(s), attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 6, read with modification, if any, in Section V - 'Special Conditions of Contract', for due performance of the contract.

We agree to keep our tender valid for acceptance for a period up to ....., as required in the GIT clause 19, read with modification, if any in Section-III - 'Special Instructions to Tenderers' or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.

.....  
(Signature with date)

.....  
(Name and designation)

Duly authorized to sign tender for and on behalf of

.....

.....

---

## Section XI: Price Schedule

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Price bid:

Name of the bidder:

Tender No & Date:

Subject:

S.N Descriptions	Quantity	Amount
1. Gold Aqua Regia Refining Machine	1EA	
2. Supply, Installation, Commissioning, & Training		
3. Other charges (if any)		
3. GST%		
4. Total		

Note:

- 1.Rates should be quoted FOR IG Mint, Hyderabad
- 2.All the charges should be clearly specified in the appropriate column.
- 3.Cutting/Overwriting should be avoided.
- 4.No conditional tender will be accepted.
- 5.Bidder firm shall quote strictly as per Price bid format above failing to which the offer shall be summarily rejected.
- 6.The price should be quote in INR only.

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## Section XII: Questionnaire

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The tenderer should furnish specific answers to all the questions / issues mentioned below. In case a question / issue does not apply to a tenderer, the same should be answered with the remark "not applicable".

Wherever necessary and applicable, the tenderer shall enclose certified copy as documentary proof / evidence to substantiate the corresponding statement.

In case a tenderer furnishes a wrong or evasive answer against any of the under mentioned question/ issues, its tender will be liable to be ignored.

1. Brief description and of goods and services offered:

2. Offer is valid for acceptance up to .....

3. Your permanent Income Tax A/ C No. as allotted by the Income Tax Authority of Government of India:

Please attach certified copy of your latest/ current Income Tax clearance certificate issued by the above authority.

4. Status :

a) Are you currently registered with the Directorate General of Supplies & Disposals (DGS&D), New Delhi, and / or the National Small Industries Corporation (NSIC), New Delhi, and / or the present SPMCIL and / or the Directorate of Industries of the concerned State Government for the goods quoted ? If so, indicate the date up to which you are registered and whether there is any monetary limit imposed on your registration.

b) Are you currently registered under the Indian Companies Act, 1956 or any other similar Act?

Please attach certified copy(s) of your registration status etc. in case your answer(s) to above queries is in affirmative.

5. Please indicate name & full address of your Banker(s) :

6. Please state whether business dealings with you currently stand suspended/ banned by any Ministry/ Deptt. of Government of India or by any State Govt.

.....  
(Signature with date)

.....

.....  
(Full name, designation & address of the  
Person duly authorized sign on behalf of the tenderer)  
For and on behalf of

.....

.....  
(Name, address and stamp of the tendering firm)

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## Section XIV: Manufacturer's Authorization FORM

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To,  
India Government Mint, Hyderabad  
A Unit of Security Printing & Minting  
Corporation of India Limited  
(Wholly Owned by Govt. of India)  
Hyderabad

Dear Sirs,

Ref.: Your Tender document No..... dated.....

We..... who are proven and reputable manufacturers of  
..... (name and description of the goods offered in the tender) having factories at  
..... here by authorize Messrs..... (name and address of the agent) to  
submit a

tender, process the same further and enter into a contract with you against your requirement as contained in the  
above referred tender enquiry documents for the above goods manufactured by us.

We further confirm that no supplier or firm or individual other than Messrs..... (name and address  
of the above agent) is authorized to submit a tender, process the same further and enter into a contract with you  
against your requirement as contained in the above referred tender enquiry documents for the above goods  
manufactured by us.

We also hereby extend our full warranty, as applicable as per clause 16 of the General Conditions of Contract read  
with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the  
above firm against this tender document.

Yours faithfully,

.....

.....

[Signature with date, name and designation]

Note: This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a  
person competent and having the power of attorney to legally bind the manufacturer.

## Section XV: Bank Guarantee Form for Performance Security

.....[insert: Bank's Name, and Address of issuing Branch or Office]

Beneficiary: ..... [insert: Name and Address of SPMCIL]

Date:.....

PERFORMANCE GUARANTEE No.: .....

WHEREAS..... (name and address of the supplier) (hereinafter called "the supplier") has undertaken, in pursuance of contract no..... dated .....to supply (description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of ..... (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the contract to be performed thereunder or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

We undertake to pay SPMCIL up to the above amount upon receipt of its first written demand, without SPMCIL having to substantiate its demand.

This guarantee will remain in force for a period of forty five days after the currency of this contract and any demand in respect thereof should reach the bank not later than the above date.

.....  
(Signature with date of the authorized officer of the Bank)

.....

.....  
Name and designation of the officer

.....  
Seal, name & address of the Bank and address of the Branch

.....  
Name and designation of the officer

.....

.....  
Seal name& address of the Bank and address of the Branch

## Section XVI: Contract Form

Contract No.....dated.....

This is in continuation to this office' Notification of Award No..... dated .....

1. Name & address of the Supplier: .....

2. SPMCIL's Tender document No..... dated.....and subsequent Amendment No..... dated..... (If any), issued by SPMCIL

3. Supplier's Tender No..... dated.....and subsequent communication(s) No..... dated..... (If any), exchanged between the supplier and SPMCIL in connection with this tender.

4. In addition to this Contract Form, the following documents etc, which are included in the documents mentioned under paragraphs 2 and 3 above, shall also be deemed to form and be read and construed as part of this contract:

(i) General Conditions of Contract;

(ii) Special Conditions of Contract;

(iii) List of Requirements;

(iv) Technical Specifications;

(v) Quality Control Requirements;

(vi) Tender Form furnished by the supplier;

(vii) Price Schedule(s) furnished by the supplier in its tender;

(viii) Manufacturers' Authorization Form (if applicable for this tender);

(ix) SPMCIL's Notification of Award

Note: The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under clause 0 of Section - V - 'General Conditions of Contract' of SPMCIL's Tender document shall also apply to this contract.

5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:

(i) Brief particulars of the goods and services which shall be supplied/provided by the supplier are as under:

(ii) Delivery schedule

(iii) Details of Performance Security

(iv) Quality Control

(a) Mode(s), stage(s) and place(s) of conducting inspections and tests.

(b) Designation and address of SPMCIL's inspecting officer

(v) Destination and dispatch instructions

(vi) Consignee, including port consignee, if any

(vii) Warranty clause

(viii) Payment terms

(ix) Paying authority

.....

(Signature, name and address of SPMCIL's authorized official)

For and on behalf of.....

Received and accepted this contract.....

(Signature, name and address of the supplier's executive duly authorized to sign on behalf of the supplier)

For and on behalf of

.....

(Name and address of the supplier)

.....

(Seal of the supplier)

Date:

Place:



## Section XVII: Letter of authority for attending a Bid opening

The Chief General Manager,  
India Government Mint, Hyderabad.

Subject: Authorization for attending bid opening on 18.02.2022 in the Tender of SUPPLY, INSTALLATION, COMMISSIONING & TRAINING OF AQUA REGIA GOLD REFINING PLANT WITH INQUARTATION.

Following persons are hereby authorized to attend the bid opening for the tender mentioned above on behalf of \_\_\_\_\_ (Bidder) in order of preference given below.

Order of Preference	Name	Specimen Signatures
1.		
1.		
Alternate representative		
Signatures of bidder or  Officer authorized to sign the bid  Documents on behalf of the bidder.		

### Note:

- Maximum of two representatives will be permitted to attend bid opening. In cases where it is restricted to one, first preference will be allowed. Alternate representative will be permitted when regular representatives are not able to attend.
- Permission for entry to the hall where bids are opened may be refused in case authorization as prescribed above is not recovered.

## Mailing List (List of Vendors)

S.No.	Vendor Number	Vendor name	Vendor Address
1	104573	The Bidder,	The Bidder,



## भारत सरकार टकसाल / INDIA GOVERNMENT MINT

भारत प्रतिभूति मुद्रण तथा मुद्रा निर्माण निगम लिमिटेड की इकाई  
(A UNIT OF SECURITY PRINTING & MINTING CORPORATION OF INDIA LIMITED)

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हैदराबाद – 500051  
तेलंगाना, भारत

CIN : U22213DL2006GOI144763  
GSTIN: 36AAJCS6111J2Z8

IDA PHASE II, CHERLAPALLY,  
P.B. NO.10, H.C.L (P.O)  
HYDERABAD-500051.  
TELANGANA, INDIA

### ANNEXURE-I MANDATORY CHECKLIST

(To be submitted along with Techno-commercial Bid)

Sr.No	Description	Yes/No
1.	Tender submitted in two bids i.e (Techno-Commercial + Price Bids).	<input type="checkbox"/>
2.	The Tender should be submitted in English Language. The authenticated copies of the documents in support of the applicant's claims may be submitted in Hindi/English Language.	<input type="checkbox"/>
3.	-Against EMD, bidder firm have to submit a seal & sign "Bid Security Declaration" accepting that if the firm withdraw or modify their bid during the period of bid validity after opening of tender they will be suspended for a period of 3 years from the date of opening of tender. -In addition to above, firms participating as MSE/NSIC/DIC/Start-up India Campaign, needs to enclosed certificated containing validity) including registered category-if any).	<input type="checkbox"/>
4.	<b>CATEGORY OF MSME FIRMS</b>	
	SC	<input type="checkbox"/>
	ST	<input type="checkbox"/>
	GEN	<input type="checkbox"/>
5.	<b>Owner of the Company</b>	
	Male	<input type="checkbox"/>
	Female	<input type="checkbox"/>
6.	Provided the Names of Organizations(s)/Firms with Address & Telephone Numbers, Fax Numbers, E-mail address to which they have provided similar type of items/services annually during the last five years in Techno-commercial Bid.	<input type="checkbox"/>
7.	Power of attorney/Authorization indicating that authorized signatory is competent & legally authorized to submit the tender and /or to enter into legally binding contract enclosed in Techno-commercial Bid.	<input type="checkbox"/>
8.	Sealed & signed copy of each page of tender document submitted along with techno-commercial bid as a token of acceptance of all terms & conditions enclosed.	<input type="checkbox"/>
9.	Compliance to Technical Specification – Compliance sheet" along with Techno-Commercial Bid.	<input type="checkbox"/>
10.	A Copy of the price bid proforma submitted along with Techno-Commercial Bid leaving blank the price portion(i.e. showing the unit, currency & total price of the Item/Material offered as xxx) so as to indicate the Item/Material being offered is enclosed.	<input type="checkbox"/>
11.	Copy of GST/PAN/TAN number/TIN number enclosed in Techno-commercial Bid. Please do not fill the prices in Section-X-Tender Form.	<input type="checkbox"/>
12.	Undertaking/declaration certificate for not suspended/banned by any Ministry/Dept. Of Government of India or by any State Govt must be submitted in technical bid by the bidder.	<input type="checkbox"/>
13.	Tender validity 120 days given.	<input type="checkbox"/>
14.	Delivery Schedule accepted as per tender.	<input type="checkbox"/>
15.	Payment terms accepted as per tender.	<input type="checkbox"/>

#### NOTE:

1. The above check list duly filled must be submitted along with techno-commercial bid.
2. No price component has to be mentioned in above checklist otherwise offer will be rejected.

Signature and Seal of bidder