

| | |
|-----|-----------------------------------|
| UoA | Office of the University Engineer |
|-----|-----------------------------------|

INDEX PAGE

| | | |
|----------------|--|-------------|
| Name of Work: | Supply, Installation, Testing and Commissioning of LPG Pipe line Fittings in Chemistry Labs at Department of Chemistry, University of Allahabad, Prayagraj. | |
| Sl. No. | Description | Page |
| | Index | 01 |
| 1 | Notice for Inviting Tender | 02 |
| | PART-A | 03 |
| 2 | Technical cum prequalification Information and instructions for contractors for e-tendering | 04 |
| i | Receipt of deposition of original EMD | 05 |
| ii | e-Tendering | 06-09 |
| iii | Item Rate Tender & Contract for Works | 10-11 |
| iv | Proforma of Schedules | 12 |
| v | General requirement for the tender | 13-14 |
| vi | Special Terms and Condition | 15 |
| vii | Technical Specification | 16 |
| viii | List of Preferred Makes for LPG Pipe Line Works | 17 |
| | PART -B (FINANCIAL BID) | 18 |
| 3 | Schedule of Quantity | 19 |

| | | |
|------------|--|-----------------------------------|
| UoA | | Office of the University Engineer |
|------------|--|-----------------------------------|

NOTICE FOR INVITING TENDER

The **Registrar, University of Allahabad, Prayagraj** on behalf of Vice Chancellor invites online item rate bids from **registered contractors in CPWD, PWD, MES, PSUs and other Govt. / semi govt organizations under valid category or experienced executors or their authorized representatives of Oil companies like IOCL/BPCL/HPCL** as per the eligibility criteria for the following work(s):

| S. No. | NIT NO. | Name of work and location | Estimated cost put to bid | Earnest Money | Period of Completion | Date of Publishing | Last date & time of submission of bid, EMD, e-tender processing fee and other Document as specified in the bid document | Time & date of opening of tender |
|--------|--------------------|---|---------------------------|---------------|----------------------|--------------------|---|----------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 04/UE/ALLD/2021-22 | Supply, Installation, Testing and commissioning of LPG Pipe line fittings in Chemistry labs at Department of Chemistry, University of Allahabad, Prayagraj. | Civil:-₹ 11,39,999/- | ₹ 22,800/- | 60 Days | 11.02.2022 | Up to 03:00 PM on 22.02.2022 | At 03:30 PM on 23.02.2022 |

Registrar
University of Allahabad



PART-A

TECHNICAL CUM PREQUALIFICATION

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE

1. The intending bidder must read the terms and conditions carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.eprocure.gov.in
4. But the bid can only be submitted after depositing of original EMD in the office of University Engineer, Allahabad University within the period of bid submission and uploading the mandatory scanned documents such as Demand Draft or Pay order or Banker's Cheque or Deposit at call Receipt or Fixed Deposit Receipts and Bank Guarantee of any Scheduled Bank towards EMD in favor of Finance Officer, University of Allahabad as mentioned in NIT, receipt for deposition of original EMD to office of the University and other documents as specified.
5. Those contractors not registered on the website mentioned above, are required to get registered beforehand.
6. The intending bidder must have valid class-III digital signature to submit the bid.
7. Contractor can upload documents in the form of **JPG** format and **PDF** format.
8. Contractor must ensure to quote rate of each item.
9. Bidders are requested to visit the site before quoting the rate.

List of Documents to be scanned and uploaded within the period of bid submission for technical qualification.:

- I. Treasury Challan/Demand Draft/Pay order or Banker's Cheque /Deposit at Call Receipt/FDR/Bank Guarantee of any Scheduled Bank against EMD.
- II. Enlistment Order of the Contractor in appropriate class .
- III. Certificate of Registration for GSTN No.
- IV. Copy of receipt of deposition of original EMD issued from Office of the University Engineer, Allahabad University.
- V. Experience certificate issued by competent authority:

Three works equivalent to 40% of the estimated cost during the last seven years.

or

Two works equivalent to 60% of the estimated cost during the last seven years.

or

One work equivalent to 80% of the estimated cost during the last seven years.

| | | |
|-----|--|-----------------------------------|
| UoA | | Office of the University Engineer |
|-----|--|-----------------------------------|

RECEIPT OF DEPOSITION OF ORIGINAL EMD

(Receipt No. / date))

1. **Name of Work: Supply, Installation, Testing and commissioning of LPG pipe line fittings in Chemistry labs at Department of Chemistry, University of Allahabad, Prayagraj.**
2. **NIT No. : 04/UE/ALLD/2021-22**
3. Estimated Cost : ₹ 11,39,999/-
4. Amount of Earnest Money Deposit : ₹ 22,800/-
5. Last date of submission of Bid : **UPTO 3:00 P.M.**
6. Name of Contractor: #
7. Form of EMD #
8. Amount of Earnest Money Deposit #
9. Date of submission of EMD #

.....

Signature, Name and Designation of EMD
Receiving person along with office stamp

E-Tendering

1. Item rate bids are invited on behalf of Vice Chancellor, University of Allahabad, Allahabad from registered contractors in CPWD, PWD, MES, PSUs and other Govt. /semi govt organizations under valid category or experienced executors or their authorized representatives of Oil companies like IOCL/BPCL/HPCL as per the eligibility criteria for the work of **“Supply, Installation, Testing and commissioning of LPG pipe line fittings in Chemistry Labs at Department of Chemistry, University of Allahabad”**. The enlistment of the contractors should be valid till the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.
2. The work is estimated to cost ₹ **11, 39,999/-**. This estimate, however, is given merely as a rough guide.
3. Agreement shall be drawn with the successful bidders on prescribed Form. Bidders shall quote his rates as per various terms and conditions of the said form, which will form part of the agreement.
4. The time allowed for carrying out the work will be **60 Days** from the 15th day of issue of LOA or first date of handing over of the site, whichever is earlier, in accordance with the phasing, if any, indicated in the bid documents.
5. The site for the work is available.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
8. Earnest Money in the form of Treasury Challan or Demand Draft or Pay order or Banker’s Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (drawn in favour of Finance Officer, University of Allahabad, Allahabad) shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited in the Office of University Engineer, Allahabad University within the period of bid submission. The Office of the University Engineer shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by the tender inviting authority.

This receipt shall also be uploaded to the e-tendering website by the intending bidder up to the specified bid submission date and time.
10. Copy of Enlistment Order and certificate of work experience and other documents as specified in **the bid document** shall be scanned and uploaded to the e-Tendering website within the period of bid submission. Further, certified copy of all the scanned and uploaded documents as specified in bid document shall have to be submitted by the lowest bidder only within a week physically in the office of University Engineer. **Online bid documents** submitted by intending bidders shall be opened only of those bidders, **whose original EMD deposited with Office of the University Engineer, Allahabad University, Allahabad** and other documents scanned and uploaded are found in order.

| | | |
|-----|--|-----------------------------------|
| UoA | | Office of the University Engineer |
|-----|--|-----------------------------------|

themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidders shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the local conditions and other factors having a bearing on the execution of the work.

14. The competent authority on behalf of the Vice Chancellor, University of Allahabad does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
15. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
16. The competent authority on behalf of Vice Chancellor, University of Allahabad, Allahabad reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
17. The contractor shall not be permitted to bid for works in the University if his near relative is posted as an employee in any capacity in the university. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any faculty/officer/staff in Allahabad University.
18. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
19. **The bid for the works shall remain open for acceptance for a period of 30 days.** If any bidders withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the University shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
20. This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-

| | | |
|-----|--|-----------------------------------|
| UoA | | Office of the University Engineer |
|-----|--|-----------------------------------|

- a. The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.

21.

- 21.1.1 The bidders must associate himself, with agencies of the appropriate class eligible to bid for each of the minor component individually.
- 21.1.2 The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.
- 21.1.3 Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.
- 21.1.4 Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.
- 21.1.5 The main contractor has to associate agency(s) for minor component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to the University Engineer within prescribed time. Name of the agency(s) to be associated shall be approved by the University Engineer or person authorized by him for minor component(s).
- 21.1.6 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of the University Engineer. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case the University Engineer is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
- 21.1.7 The main contractor has to enter into agreement with contractor(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to the University Engineer. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.
- 21.1.8 Running payment for the composite work will be made to the main contractor.
- 21.1.9A. The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by the University Engineer after record of completion certificate of all other components.
- 21.1.9B. Final bill of whole work shall be finalized and recommendation for payment will be made by the University Engineer. A.E./J.E.(Civil) in charge of minor component(s) will prepare and forward the bills to the University Engineer for further action.
- 21.1.9C. In case of any dispute arising out of any content the decision of the Vice Chancellor, UoA will be final & binding upon both the parties.
- 21.1.9D. All disputes are subject to Jurisdiction of Allahabad.

ITEM RATE TENDER & CONTRACT FOR WORKS

Tender for the work of:- “Supply, Installation, Testing and commissioning of LPG pipe line fittings in Chemistry Labs at Department of Chemistry, University of Allahabad” Prayagraj.

- (i) To be uploaded latest by **03:00 PM** hours on at **www.eprocure.gov.in**
- (ii) To be opened in presence of tenderers who may be present at **03:30 PM** hours on in the office of **University Engineer** or other suitable place, **University of Allahabad, Allahabad.**

TENDER

I/We have read and examined the notice inviting tender, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Quantity & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the University of Allahabad within the time specified in the tender document viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for 30 days and not to make any modification in its terms and conditions.

A sum of **Rs.** is hereby forwarded in Treasury Challan or Demand Draft or Pay order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (drawn in favour of Finance Officer, University of Allahabad, Allahabad) **issued by a** scheduled bank as earnest money in the form of Demand Draft drawn in favor of Finance Officer, University of Allahabad or as deposit receipt in the Account Office.

A copy of earnest money in receipt treasury challan/deposit at call receipt of a scheduled bank/fixed deposit receipt of scheduled bank/demand draft of a scheduled bank/bank guarantee issued by a scheduled bank in form of DD/Deposit Receipt is scanned and uploaded (**strike out as the case may be**). If I/We fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said the Vice Chancellor, University of Allahabad or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that the Registrar, University of Allahabad or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

| | | |
|------------|--|-----------------------------------|
| UoA | | Office of the University Engineer |
|------------|--|-----------------------------------|

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in University of Allahabad in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Registrar, University of Allahabad shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State. I/We have filled and signed the tender documents on each page and the same are enclosed herewith.

Dated

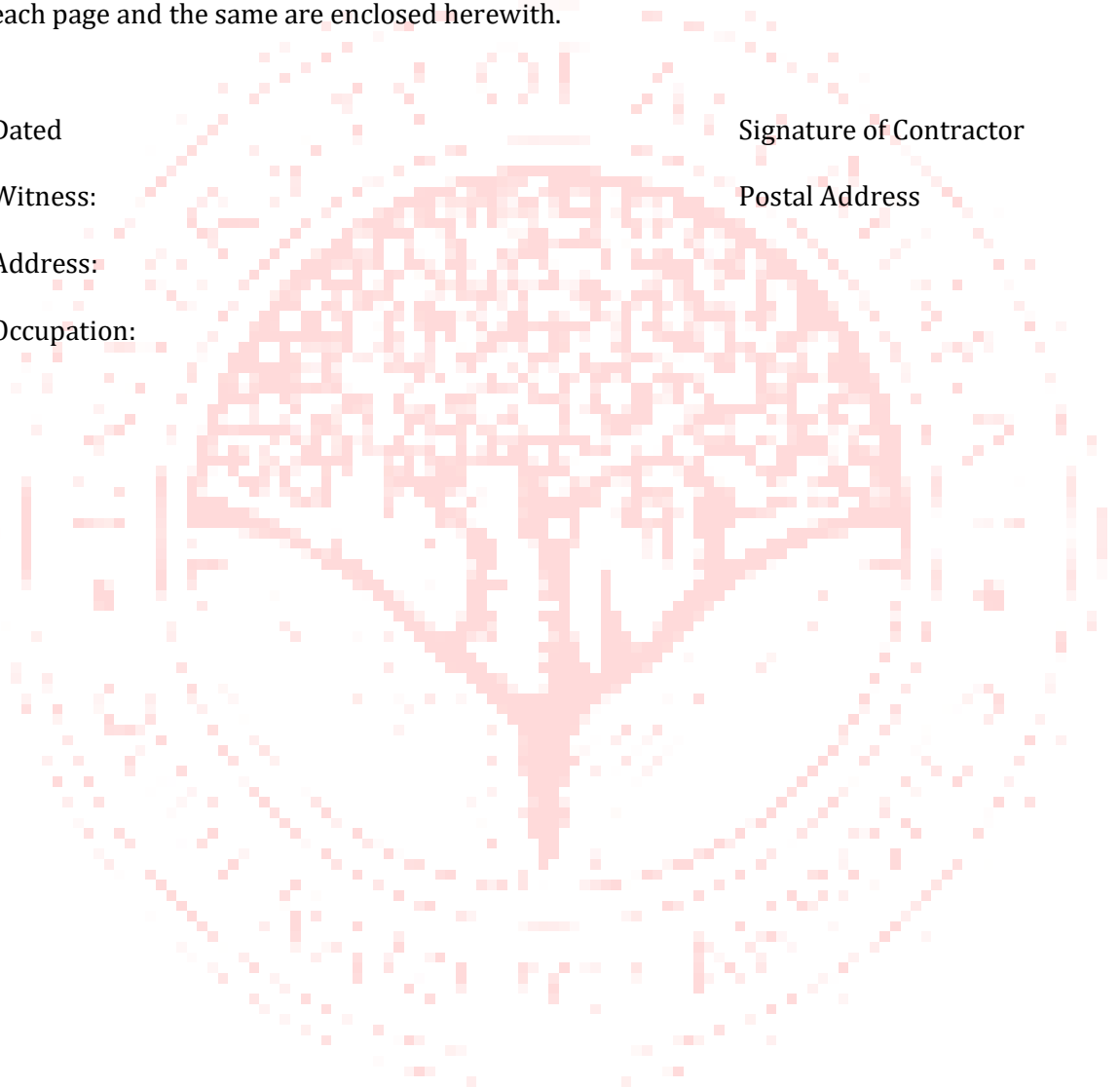
Signature of Contractor

Witness:

Postal Address

Address:

Occupation:



| | | |
|------------|--|-----------------------------------|
| UoA | | Office of the University Engineer |
|------------|--|-----------------------------------|

PROFORMA OF SCHEDULES

| | | |
|--|---|---------------|
| Name of Work: Supply, Installation, Testing and Commissioning of LPG Pipe line fittings in Chemistry labs at Department of Chemistry. University of Allahabad, Prayagraj. | | |
| | LPG Pipe line fittings | ₹ 11,39,999/- |
| | Other | NIL |
| | Total | ₹ 11,39,999/- |
| Earnest money | ₹ 22,800/- (To be returned after receiving performance guarantee) | |
| Performance Guarantee | 10% of the tendered value of the work | |
| Security Deposit | 10% of the tendered value of the work which will be deducted from the final bill and will be released after defect liability period of 12 months. Once the security deposit is deducted the performance guarantee will be returned to the Contractor. | |

GENERAL REQUIREMENTS FOR THE TENDER

Name of the work:- [Supply, Installation, Testing and commissioning of LPG Pipe line fittings in Chemistry labs at Department of Chemistry, University of Allahabad, Prayagraj.](#)

- (1) The tenderer is advised to read and examine the tender documents for the work . He should inspect and examine the site and its surroundings by himself before submitting his tender.
- (2) The contractor(s) shall submit a detailed program of execution in accordance with the master programme /milestone within ten days from the date of issue of award letter.
- (3) Time allowed for the execution of work is [60 Days](#)
- (4) Contractor has to arrange and install required quantity of tools, plants, scaffolding during the currency of work and nothing extra will be paid on this account .
- (5) The contractor (s) shall make his own arrangements for electricity and water required for the execution of work.
- (6) If the contractor associates, it with specialized agencies for the work the agency must have experience of carrying out **LPG gas pipeline work in educational institutes** preferably of government owned institutions. The criteria for the same will be as follow:
 - (i) **Three similar works each costing not less than 40% of estimated cost for concerned sub head.**
 - Or*
 - (ii) **Two similar works each costing not less than 60% of estimated cost for concerned sub head.**
 - Or*
 - (iii) **One similar work costing not less than 80% of estimated cost for concerned sub head.**
- (7) The contractor shall submit the running bills in the shape of the computerized MB in pages of A-4 size as per the standard format of University of Allahabad.
- (8) The contractor will submit the photograph of the work site before starting the work, photographs of execution of work and photographs of completed work.
- (9) **Liquidated damages:** In case the work is delayed beyond the specified completion period for reasons attributable to the contractor, deductions on account of Liquidated damages @ ½% of the contract value per week will be deducted subject to a maximum of 5% of the contract value. However, during the delayed period, UoA also reserves the right to get some portion of the work done by any other contractor at the risk and cost of the existing contractor and amount to that effect along with 10% overhead charges will be deductible from this bills/dues.
- (10) **Extra or substituted item:** If any extra or substituted item appears in the work, contractor shall submit its rate analysis supported with documents, which shall be

| | | |
|-----|--|-----------------------------------|
| UoA | | Office of the University Engineer |
|-----|--|-----------------------------------|

approved by UoA. If required, UoA can make its own analysis based on market rates for determining item rate and pay to contractor accordingly.

- (11) **Termination of Contract:** The Registrar, UoA reserve the right to terminate the contract on account of poor workmanship, failure to mobilize site within 15 days, work, violation of any contract provisions, subletting the work, etc. by the contractor. In such case, contractor's EMD and security deposit deducted so far will be forfeited.
- (12) **Escalation:** No escalation over and above items rates quoted by the bidder shall be paid during the execution of contract.
- (13) **Completion time:** The time shall be the essence of this contract and entire work as titled above is to be completed in all respects within a period of **60 Days** from 15 days from the date of issue of **LOA** or the first date of handing over the site whichever is later. Any delay in completing the work for reasons attributable to the Contractor is liable for liquidated damages as per clause 9 of NIT. Under the force majeure conditions or delay due to reasons beyond control of the contractor, UoA may grant suitable time extension without penalty for which the contractor has to request along with the justification/ reasons well in advance to UoA for approval without any prejudice to price escalation. No time extension request shall be considered after the expiry of completion period/contract. The decision of the Registrar, UoA regarding time extension will be final and binding on the contractor.

SPECIAL TERMS AND CONDITIONS

- 1 No payment shall be made to the contractor for any damage caused whatsoever during the execution of work. The damage caused to work shall have to be made good by the contractor at his own work shall have to be made good by the contractor at his own cost and no claim on this account shall be entertained.
- 2 The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards. He shall be responsible for all damage and accidents caused due to negligence on his part.



TECHNICAL SPECIFICATIONS

- I. Any demolition/dismantling/crossing of civil structure required for installation of services and making it good as per original shall be deemed to have been included in the cost quoted by the bidder and no extra payment for these works will be made. Bidders are advised to visit the site to access the extent & requirement for such works to be conducted.
- II. In general, joints shall be butt welded as specified in the applicable valve & piping specifications, with flanges and butt weld fittings used on where required.
- III. All welding shall have full thickness penetration and shall be done by the TIG process. Tack welds lacking penetration shall be chipped out completely and re-welded properly.
- IV. In multiple pass welding, each layer shall be cleaned of all slag, scale and other foreign matter and any serious defects chipped out before subsequent welding is done. Next run of weld shall be carried out only after thorough inspection, rectification and preparation of the previous run. Use stainless steel chipping tools and wire brushes for cleaning. The completed weld shall be cleaned of slag and spatter if any.
- V. No under cutting of pipe adjacent to the completed weld will be permitted.
- VI. Pipes shall be brushed with stainless steel wire brushes and then cleaned for a distance of at least 50mm from the weld area. Filler material shall also be cleaned in similar manner.
- VII. Root pass shall be made with electrodes/filler wires recommended in the welding specification chart. The preferable size of the electrode is 2.5 mm diameter (12 SWG) but in any case not greater than 3.25 mm (10 SWG)
- VIII. The root run of butt joints should be executed properly so as to achieve full penetration with complete fusion of the root edges. Weld projection inside the pipes shall not exceed 3mm, wherever not specified by the applicable code. All root run will be done by TIG welding for Butt Joints.
- IX. While welding is in progress, care should be taken to avoid any kind of movement of the components, shocks, vibrations and stresses to prevent occurrence of weld cracks.
- X. Welding electrodes with a suitable coating/filler wires shall be in accordance with IS:814/ASME Sec. II, latest edition and of a recognised quality. These shall be approved by Engineer-in- Charge before being used in the work. Approved makes are to be used.
- XI. The following specifications of electrodes are recommended for welding: General structural welding : AWS-E-6012.
- XII. Fabricated piping system shall be erected as detailed on piping layout drawing and as advised by the Engineer-in-Charge. The contractor shall provide adequate field joints bearing in mind the fact that there may be variations in locations of equipments, equipment nozzles, inserts, structures, etc. but not limited to the aforesaid contingencies only. In certain cases site measurement may have to be taken before commencement of fabrication.
- XIII. After successful commissioning of the pipelines, the contractor shall conduct performance tests including hydraulic or pneumatic pressure testing on the equipment to satisfy the Engineer-in-charge that all the equipments perform to the rated outputs. Equipment like valves, fittings etc. shall be replaced (not repaired) if the same is not working at rated output.
- XIV. The colour code scheme for LPG pipeline network is RED.
- XV. List of approved makes and specifications:

| | |
|-----|-----------------------------------|
| UoA | Office of the University Engineer |
|-----|-----------------------------------|

LIST OF PREFERRED MAKES FOR LPG PIPE LINE WORKS

| Sl No. | Item | Technical Specifications |
|--------|---|---|
| 1 | M.S. Manifold | Heavy duty seamless pipes C-Class of TATA or equivalent tested as per standards of OITC |
| 2 | M. S. Heavy Duty Pipe Line | Stream pipe or seamless or ERW Class "C" of TATA or equivalent. |
| 3 | Adjustable Regulator | United or equivalent. |
| 4 | Master Main Valve | S. S. ball valve of ACRON/Fobes Marshall/HPC or equivalent. |
| | Needle Control Valve | HPC/Fobes Marshall/ or equivalent. |
| 5 | D. B. C | Pure Synthetic Rubber tube with SS/MS plated wire braiding and tested as per OITC. |
| 6 | Non-Return Valve | HPC/TVL/Foodes Marshall or equivalent. |
| 7 | Cylinder Pigtail | Suraksha/Basant/United or equivalent (ISI marked) |
| 8 | Cylinder Adapter | HPC/TVL or equivalent. |
| 9 | M.C.F.C. Nut | As per requirement. |
| 10 | Burner Pigtail | SURAKSHA/KWALITY or equivalent. |
| 11 | Bunsen Lab Burner | Brass burner with Nozzle. HIGHTECH or equivalent |
| 12 | Low pressure regulator | UNITED/VANAZ or equivalent. |
| 13 | Pressure gauge meter. | HPC/Fobes Marshall/WIKa or equivalent. |
| 14 | Table Terminals. | BRASS. |
| 15 | Taps Cock | SWASTIK or equivalent. |
| 16 | Welding procedure/Qualification | ASME B 31.3/31.8, ASME Sec IX & IS: 817 |
| 17 | PSI, Adapter, Watch, Clamp, Pitail, Four way, burner and other supportive accessories | Make Unitech or equivalent. |



PART-B

| | |
|-----|-----------------------------------|
| UoA | Office of the University Engineer |
|-----|-----------------------------------|

BILL OF QUANTITY

NAME OF WORK:- *“Supply, installation, testing and commissioning of LPG pipe line fittings in Chemistry Labs at Department of Chemistry”, University of Allahabad.*

NIT No. : *04/UE/ALLD/2021-22*

| SI No. | Description | Quantity | Unit | Rate (Rs.) (Inclusive of all taxes) | Amount (Rs.) |
|---------------|--|-----------------|-------------|--|---------------------|
| 1 | S/F of PSI, Adapter, Watch, Clamp, Pitail, Four way and other supportive accessories (make unitech) Pipe line (make - Tata) (without burner) | 682.00 | No | | |
| 2 | S/F of PSI, Adapter, Watch, Clamp, Pitail, Four Way and other supportive accessories, Burner (Make - Unitech) Pipeline (Make - Tata) | 64.00 | No | | |
| 3 | S/F of Gas Bank with fitting cage (4+4 cylinder) | 2.00 | No | | |
| 4 | S/F of Gas Bank with fitting cage (3+3 cylinder) | 2.00 | No | | |
| 5 | S/F of Gas Bank with fitting cage (5+5 cylinder) | 2.00 | No | | |

Signature and Address of Contractor

*Registrar
University of Allahabad*