INTER-UNIVERSITY ACCELERATOR CENTRE

(An Autonomous Centre of UGC) Aruna Asaf Ali Marg, New Delhi-110 067

NOTICE INVITING E-TENDER

TENDER NO: IUAC/NIT/44/AJM/2019-20 Dated: 04/12/2019

Instructions for Online Bid Submission:

Inter-University Accelerator Centre (IUAC), invites online bids through e-Procurement Portal under two bid system, viz., Technical and Financial bids, from eligible and experienced parties for the work of "Supply, Fabrication, Installation, Testing and Commissioning of SS Piping Works in Beam Hall#III at IUAC".

Tender Documents may be downloaded from Central Public Procurement Portal http://eprocure.gov.in/eprocure/app and www.iuac.res.in

Aspiring Bidders who have not enrolled/registered in e-Procurement Portal should enroll/ register before participating through the website http://eprocure.gov.in/eprocure/app.

Bids shall be submitted online only at CPPP website: http://eprocure.gov.in/eprocure/app. Tenderers/Contractors are advised to follow the instructions provided in the e-procurement portal. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

IUAC reserves the right to accept / reject any/all tenders in part/full without assigning any reasons thereof.

Bidder has to select the payment option as "offline" to pay the tender fee and EMD as applicable. The Earnest Money Deposit shall be in the form of demand draft issued in favour of "Inter-University Accelerator Centre, New Delhi" and it should be deposited in IUAC before the bid opening. Bidders registered with MSME/NSIC are exempted from payments of EMD & tender fee. Copy of valid registration certificate should be uploaded.

Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled and submit it online without modifying the format. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

Any Corrigendum/Amendments in respect of above tender shall be issued on IUAC website www.iuac.res.in and website https://eprocure.gov.in only. Bidders should take into account any corrigendum published on the tender document before submitting their bids.

E-TENDER DOCUMENT

Name of Work	Supply, Fabrication, Installation, Testing and Commissioning
	of SS Piping Works in Beam Hall#III at IUAC
Tender No.	IUAC/NIT/44/AJM/2019-20
Tender Value/Estimate	Rs. 14,60,000/- (Rupees Fourteen Lacks Sixty Thousand only)
Earnest Money Deposit	Rs. 30,000/- (Rupees Thirty Thousand only in the form of DD)
Tender Fee	Rs. 590/- (Five hundred and ninety only)
Bid Submission End Date	26/12/2019 at 3.00 PM
Technical Bid (Part-A) Opening Date	27/12/2019 at 3.30 PM
Price Bid (Part-B) Opening Date	To be intimated later
Contact Persons	M. B. Joseph, Administrative Officer (S&P)
	e-mail: joseph@iuac.res.in
	A.J. Malyadri
	e-mail: ajm.iuac@gmail.com
	Phone: 011-24126018 & 24126022

GENERAL CONDITIONS OF TENDER:

- 1. Submission of Tender: Tenders should be uploaded on CPP portal in two parts separately, i.e. "Technical Bid" (Part-A) and "Price Bid / BOQ)" (Part-B). No other mode of submission will be accepted. Any clarifications/amendments/corrigenda etc., to NIT before last date of submission of bid will only be available on our website: www.iuac.res.in. Therefore bidders are advised to keep visiting our website.
- 2. <u>Technical Bid (Part-A)</u>: In this bid, the bidder should submit his company profile, history and structure of firm, name of directors/partners/proprietor with technical staff, list of plant, machinery & tools in his possession, copies of work orders successfully executed during the last seven years. No deviations in respect of NIT conditions are acceptable.

The following specific conditions are essential for Technical Qualification:-

- i) Earnest Money Deposit (NSIC / MSME registered companies are exempted from EMD)
- ii) Tender acceptance letter (as per Annexure IV of tender document) on bidder's letter head duly signed & stamped by the bidder as acceptance of all terms & condition of tender.
- iii) Copies of work orders successfully executed for Supply, Fabrication, Installation, Testing & Commissioning of SS Piping Works, Thermal Insulation etc.," during the last 7 years for reputed Public Ltd. Companies, Public Sector and other Govt. Institutions in the following manner:
 - a) One similar work of value not less than Rs. 11.7 lakhs OR
 - b) Two similar works, each of value not less than Rs. 7.3 lakhs OR

- c) Three similar works, each of value not less than Rs. 5.8 lakhs
- iv) Satisfactory work completion certificate from at least one client with contract details. The work order and completion certificate should be for the same work.
- v) IUAC reserves the right to visit the working sites mentioned by bidders as proof of experience to ascertain the quality of service rendered. The bidder will have to arrange for such visit.
- 3. Price Bid (Part-B): In this bid the bidder is required to quote his items rates/prices for the works mentioned in the scope of work & technical specifications. The rates/price should be inclusive of all material cost, labour, services, charges for the plant/machinery/tools & tackles required for work, freight, Insurance, Octroi, Govt. duties, Excluding GST, levies up to IUAC site basis. Quoted rates deemed to cover all the items & works which may be required for completeness for functioning of total system, even though they may not have been explicitly mentioned in the scope and schedule of works.

 No charges towards price escalation, site difficulties shall be payable extra or separately. It is mandatory on bidder to quote all items rate as asked for in the BOQ/ PRICE schedule. Failure to adhere to this condition will lead to rejection of tender.
- **4. Earnest Money:** An earnest money of Rs.30,000/- has to be deposited at IUAC before the tender opening. The EMD shall be only in the form of Bank Draft in favour of "Inter-University Accelerator Centre" payable at New Delhi. No Cheques/Cash shall be accepted as EMD. The EMD of technically disqualified tenderers will be returned within 15 days from the date of evaluation of the technical bids. The refund of EMD to all other tenderers except the lowest tenderer shall be made within 15 days from the date of opening of price bid. The refund of EMD of the successful tenderer shall be made after completion of works and acceptance of system by IUAC upon his written request.
- **5. Exemption from EMD:** Unit registered with MSME/NSIC are exempted from payment of EMD.
- **6. Validity of Tender:** Tender shall be valid for our acceptance without any change in rates and NIT conditions for a period of 90 days from the date of opening of Technical bid.
- 7. **Escalation:** No escalation over and above items rates quoted by the bidder shall be paid during the execution of contract.

8. Performance Bank Guarantee:

- i). SUBMISSION: The successful tenderer has to submit a performance bank guarantee /FDR of an amount equal to 5% of total contract value within a period of 15 days from the date of issue of LOI/Purchase Order. Performance Bank guarantee / FDR shall be drawn in favor of Inter University Accelerator Centre as applicable. Performance Bank guarantee shall be Valid for entire contract period and two extra months. In case of contract extension with or without LD the validity of BG shall also be extended for the extended period with additional two months.
- ii). FORFEITURE: Performance Bank guarantee established under Clause 8 (i) shall contain a statement that it shall be automatically and unconditionally forfeited without recourse and payable against the presentation by INTER UNIVERSITY ACCELERATOR CEN-

- TRE to the relevant company/ correspondent bank, as the case may be, together with a simple statement that tenderer has failed to comply with any term or condition set forth in the Contract.
- iii). RELEASE: Performance Bank guarantee will be released without interest within fifteen (15) days on successful taking over of the project by IUAC on receipt of written request from tenderer seeking release subjected to submission of BG towards defect liability period as per the clause no-16.
- 9. Extra Items:- During the execution of work, the contractor may require to execute certain additional/extra items in order to complete the job/works beyond the BOQ for which no rates are available. The payment for such extra/deviated items shall be paid as per rate approved on the basis of analysis. The cost component for rate analysis shall be (i) cost of material (ii) cost of direct labour (iii) Contractor over heads & profit 10%. Before execution of extra work, the rate analysis may be forwarded to A.O (S&P) duly certified by the IUAC representative for approval of the Director, IUAC. However, the extra items amount should not exceed 10% of the total contract value including all taxes.
- 10. 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 10 (Ten) weeks (70 days) from the date of issue of LOI /Purchase order by the centre. It includes 2 to 3 weeks shutdown to be provided for installation of SS Piping in Beam Hall#III. Contractor has to arrange teams to work late hours also, if required. Any delay in completing the work for reasons attributable to the contractor is liable for liquidated damages as per clause 17 of NIT. Under the force-majure conditions or delay due to reasons beyond control of the contractor, IUAC may grant suitable time extension for which the contractor has to request along with the justification/ reasons well in advance to the Director, IUAC 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 Director will be final and binding on the bidder/contractor.
- 11. <u>Scope of Work</u>: Detailed scope of work, technical specifications etc., are enclosed with this NIT as per Annexure I, II and V.
- **12. Deviations:** No deviation from the stipulated terms and conditions will be allowed. Tenders should be unconditional.
- **13.** <u>Site Conditions</u>: Contractor shall acquaint himself fully with the site conditions and the working environment of IUAC before quoting his rates. No compensation on account of any site difficulties will be entertained, at a later date, after award of the works.
- **14.** <u>Correspondence</u>: All the correspondence in respect of tender/contractual obligation shall be made to AO (S&P), Inter–University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi-110067.
- **15.** <u>Terms of Payment</u>: The payment shall be made on submission of the bills by the contractor after due certification by the IUAC person responsible for supervision of the work in the following manner:
 - i) 60% Payment will be released against supply of material at site in good condition on prorata basis.

- ii) 30% Payment will be released after satisfactory completion of fabrication, installation of the system in all respects
- iii) Balance 10% will be paid after testing, commissioning & handing over to the department for beneficial use. Release of this payment is subjected to submission of bank guarantee /FDR of amount equivalent to 10% of final bill value valid for 365days towards the defect liability period.
- **16.** Guarantee/Defect liability period: The contractor should guarantee for the works / items executed / supplied by him against the manufacturing / engineering defect and bad material / workmanship for a period of one year from the date of acceptance by IUAC. During this period if any replacement of items and/or repairs / rectification is needed, the same should be replaced / repaired free of cost to IUAC.
- 17. <u>IUAC reserves the right</u> to reject any or all the tenders in full or in part without assigning any reasons whatsoever, and the decision of the centre in this regard will be binding on all the bidders. Tenders not complying with any of the provisions stated in this tender document are liable to be rejected. **Director**, **IUAC reserves the right to accept or reject any tender without assigning any reason and does not bind himself to accept the lowest tender.**
- 18. <u>Liquidated damages</u>: In case the work is delayed beyond the specified completion period for reasons attributable to the contractor, deductions on account of Liquidated damages @1% of the contract value per week will be deducted subject to a maximum of 10% of the final bill / contract value. However, in case the works are delayed beyond the scheduled completion / contract period, IUAC reserves the right to get the work done by any other contractor at the risk and cost of the contractor and amount to this affect along with 10% over heads will be deductible from his bills/dues.
- 19. Contractor should depute a qualified supervisor dedicated for this site, who will co-ordinate work execution activities and interact with the IUAC representative responsible for supervision of work. Without a Supervisor, work will not be allowed. All the persons deployed at IUAC site should carry valid gate-passes. Any negligence/offence on their part will attract immediate removal from site.
- **20.** The contractor will provide for all necessary materials, tools, equipment, measuring instruments and working consumables etc., needed for execution of the works. Safe custody of all such material will be contractor's sole responsibility. No extra charges will be paid for the same.
- 21. Watch and Ward of all material till the system is taken over by IUAC shall be the sole responsibility of the contractor and pilferage etc. shall be entirely to his account.
- 22. The work shall be carried out as per the norms set by the manufacturer of respective equipment, specifications and specific instructions as may be issued by the IUAC representative responsible for work from time to time.
- 23. During execution of work, the contractor should follow all standard norms of safety measures / precautions to avoid accidents / damages to man, machines and buildings. On

- non-adherence of this clause, suitable fines as decided by the Director, IUAC shall be imposed.
- 24. No material belonging to the contractor whether consumable or non-consumable should be brought inside the IUAC campus without proper entry at the main gate nor any material should be taken out without proper gate pass issued by the centre.
- **25.** IUAC will provide free water and electricity during installation work at IUAC at one point. The contractor has to make his own arrangements for installation of power and water from that point as per his requirements.
- **26.** Tender once submitted will remain with the centre and will never be returned to the bidders.
- **Termination of Contract:** The Director, IUAC reserves the right to terminate the contract on account of poor workmanship, failure to mobilise the site within 15 days, non-compliance of set norms/ specifications for the works, delay in progress of work, violation of any contract provisions by the contractor. The contract can also be terminated at the request of contractor. In such cases the Performance Bank Guarantee and EMD of the bidder will be forfeited.
- 28. Any dispute arising out of this contract will be subjected to jurisdiction of New Delhi/Delhi.

Accepted

(Signature of bidder)

ANNEXURE - I

Scope of Work:

- 1. It includes Supply, Fabrication, Installation, Testing and Commissioning of SS Piping works including thermal insulation, pipe supports etc., in Beam Hall#III FF, Beam Hall#III GF and Beam Hall#I corridor for HCI process cooling water piping distribution and in Beam Hall#I basement for FEL facility. Please find the attached schematic diagram for basic understanding of SS Piping layout (Annexure-III).
- 2. Thermal insulation will be done on SS Pipes in pump room (Beam Hall#III FF), vertical height between Beam Hall#III FF to Beam Hall#I GF, Beam Hall#I corridor and Beam Hall#III basement. In Air-Conditioning areas, no thermal insulation will be done on SS Pipes which includes Beam Hall#III GF (HCI) flooring.
- 3. The vertical height from Beam Hall#III FF roof to Beam Hall#I GF is ~8.5 mts. SS Pipes have to be installed on vertical height also. Hence scaffolding / proper arrangements have to be made to work at such a height.
- **4.** RFQ and FEL branch headers (2" NB & 1-1/2" NB) will be extended from the existing cooling system supply pipe of size 3" NB and return pipe of sizes 2-1/2" NB and 2" NB. Hence, all SS Tees/reducers should be included in the work.
- 5. Branch header flanges (3" NB & 2" NB) should match and compatible with the existing equipment/instrument piping header flanges.
- 6. Please note that in Beam Hall#III GF and basement, scientific equipments are already installed. SS Pipes cutting/grinding, drilling etc., should be done in outside Beam Hall#III. If the same has to be done in position in Beam Hall#III, contractor has to ensure extreme precaution and care while executing the work. Site should be cleared-off of all dust/metal burrs at the end of each day's work.
- 7. During Dye Penetrant Test (DPT) of TIG weld joints, it is to be ensured that DPT penetrants/chemicals do not spill over on the floor/equipments/instruments. The area surrounding the DPT should be properly covered.
- **8.** The SS Pipes installation team should comprise of a Technical Supervisor, experienced and approved TIG welder, pipe fitter cum grinder, helpers etc.,
- **9.** All tap-off holes on main headers should be done by drilling only. TIG welding torch cutting will not be allowed at any cost.
- 10. Preparation of piping layout drawing including support details. The same should be got approved by us before fabrication and 2 copies of as built drawings & one soft copy both in solid works and in pdf to be submitted. Works shall be allowed only after approval of drawings.
- 11. Manufacturer's Material & Test certificates for all the material including SS Pipes, SS Fittings, Valves etc., should be submitted to us before starting execution of works by the contractor. Without submission of test certificates, work will not be allowed.

- 12. All the works will be done as per the technical specifications mentioned in Annexure-II.
- 13. All rates should be quoted by the bidders item wise after carefully going through the Technical specifications.
- 14. No deviations from scope of work & technical specifications will be acceptable.
- 15. It also includes making of holes in RCC roof slab/floor/wall, wherever required, by concrete core cutting machine and on MS chequered plate by gas cutting for entry of thermally insulated SS Pipes. The same shall be repaired to original finish after work is completed.
- 16. The works are only indicative and all the activities needed for completion of the works have to be accounted for by the bidder at the time of quoting.
- 17. Bidder should take into account all the implicit items not specified here-in, but are essential for completion of the work. The costs of such items should be in-built in the costing of the item rates. If the items are not taken into account, they should be clearly brought out in the Technical Bid (Part-A) of the bid document.
- 18. While carrying out the works all precautions have to be taken to ensure no defacing / damage occurs to adjacent area / equipments etc., In case of any damage occures, the same has to be rectified/repaired free of cost by contractor.
- 19. Supports shall be made of MS Angles of size 50x50x6mm thick/ C-channels of size 75x40x6mm thick/ Plates of size150x150x12mm thick and anchor fasteners of size 12mm as per the requirement or as per the design. One coat of red oxide paining and two coats of synthetic enamel painting should be done on all the supports. This should be included in the costing of SITC of SS piping.
- 20. Basis of Payment: The quantities shown on the price schedule are only tentative and the actual measurements will only be known after the exact design & drawing is finalised by the successful bidder with due approval of the owner.
- 21. Kindly note that payment shall be made as per the actual quantities installed and not on the basis of items supplied. The final payment will only be made on the basis of the actual work / quantities executed and for this a joint measurement by IUAC engineer and the contractor will have to be taken. The responsibility and the facilitation for taking the measurements will rest with the contractor. It is entirely contractor's responsibility to take dimensions, sizes from site, design the system and take IUAC's engineer's approval before actually proceeding with supply and installation of the same at site.

Technical Specifications:

- 1. All pipes shall confirm to ASTM A312, TP 304, Sch.40S, ERW with dimensional standard as per ANSI B 36.19. The pipe material shall be SS-304. Ends shall be beveled.
- **2.** All elbows, Tees, reducers will conform to ASTM A 403, WP 304 with dimensional standard as per ANSI B 16.19. Elbows radius should be 1.5 D or it may vary as per the site conditions. It shall have beveled ends.
- **3.** All flanges shall conform to ASTM A 240, TP 304 with dimensional standard as per ANSI B 16.5, #150 SORF.
- **4.** All bolts shall be SS Material with dimensional standard as per ANSI B 18.21 and length to suit.
- 5. All nuts shall be SS Material with dimensional standard as per ANSI B 18.21
- **6.** Pipe in maximum length shall be used to minimise the welded joints.
- 7. All gaskets shall be as per CAF IS:2712 W/3 with dimensional standard of ANSI B 16.21 150# and 3 mm Thick Ring Type.
- **8.** All pipe supports should be as per ANSI code B 31.1/B 31.3 and good engineering practice. Pipe support to be provided at every 2/2.5/3 m (depending upon the pipe sizes) length of pipe and before and after the fittings. Indian Standard Channel and Equal Angles to be used. Pipe support drawing to be provided along with final drawing. Load bearing on pipe supports to be calculated and to be furnished.
 - Thermal packing has to be provided between support steel and SS Pipes to prevent the contact between dis-similar material. Wherever thermal insulation has to be done on SS pipes, wooden blocks with a half circle cut on top of required pipe sizes should be provided between supports and SS Pipes.
- **9.** Hanger rods shall be minimum 12 mm in size and load ratings shall be in accordance with ANSI B31.1 for ASTM A 36 or equal.
- **10.** Vendor shall carry out detailed design of all the supports, hangers and welded attachments.
- **11.** All test certificates shall have to be provided for the pipes, valves, fittings etc., for conformity to standards. If required, IUAC may ask the bidder to get the material test done. All expenditure on account of material testing shall be to bidders account.
- **12.** Nipples, U-Tubes, Valves and all fittings required for pressure gauges mounting should be in SS-304 material. U clamps for pipes should be in SS-304 material.
- 13. SS Nipples should be made out of SS-304, Sch.80 Pipes and machine threaded.
- **14.** SS Sockets, Reducing Bushes and Plugs shall be heavy duty, made out of SS-304 Rod (Cast Item not acceptable).
- **15.** Thermowell to be mounted for Temperature Indicator fixing.
- **16.** The pipe welding shall be as follows:
- Welder: Pre-qualification of welder will be done based on face and root bend test & penetration. Test report for the same to be furnished. The welder will be qualified by us based on test specimen welding in our presence and submission of test report from an approved laboratory. Welders and welding procedures shall be certified as per Section IX of ASME Boiler and pressure vessels code latest edition. All welders working on project piping shall have passed the performance qualification test prescribed by section IX of

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- ASME Boiler and Pressure Vessel code. The welder qualification tests shall be performed at our site. All expenditure on account of welder testing shall be to bidders account.
- > Burrs will be removed by grinding around and the result will be a square butt edge without chamfer.
- > Before welding the pipe edges will be cleared by SS wire brush, emery cloth and final wiping with clean rags.
- > Ends of the pipes will be carefully aligned so that no offset is present. Evenly spaced tacking by shielding will be done and the tacking will be cleaned before welding process.
- > All welds shall be done using only TIG process. All the joints should be got it physically checked by us before welding.
- > Electrodes will be 1/6" or 3/32" diameter, 2% thoriated tungsten confirming to AWS-ASTM, EWTh2 and to be sharpened to pencil point.
- > The electric current for welding will be direct current, straight polarity (electrode negative).
- > All welds will be made to minimize carbide precipitation.
- > All welds shall be shielded with welding grade argon at a controlled rate through a flow meter
- > In addition to shielding the weld area, the inside of the pipe is to be purged with argon to prevent oxidation of the inner surface. The purging will be done in all (root and final) the passes.
- All SS weld joints will be inspected Dye Penetrant Test Examination as per ASTM E-165. 100% root joints will be tested. 100% joints on final run will also tested by Dye Penetrant Test Examination.
- > Filler wire shall confirm to AWS-A 5.9, ASTM 371 and ER 308 type. It should be Adore / L&T / BOC make.
- > The pipe / fitting ends to be welded must be beveled and two passes must be made.
- > All tacks and passes are to be cleaned on the outside by using stainless steel wire brush (not steel).
- > Grinding of stainless steel welds is not permitted. Hammering of stainless steel welds is strictly prohibited.
- > The tap-off on nipple end to be welded to main pipes will be rounded to radius of the pipe dia. and then butt welded.
- > All tap-off holes will be drilled and no gas cutting will be allowed.
- All pipe pieces will be cut by hacksaw/powersaw and no gas cutting will be allowed.
- 17. After the erection of piping, Hydrostatic test will be done on piping at 1.5 times the maximum working pressure or minimum 12 bar pressure. The test pressure shall be held with no noticeable loss in pressure while all joints are visually inspected for leaks. IUAC will be the final authority to determine the test pressure to be done on the joints

18. Pipe Thermal Insulation Procedure:

Insulation material shall be fire retardant TF quality expanded polystyrene moulded pipe section of density 24 kg/cum and a thickness of 75 mm for sizes > 150 mm & 50 mm thick for sizes <=150 mm in pipe section form, K=0.035 Kcal / hr.m.Deg.C and (glass wool not accepted).

Application:

- ✓ The surface to be insulated shall be thoroughly cleaned and allowed to dry.
- ✓ CPRX compound of STP confirming to IS 702 shall be uniformly applied @1.5Kg / Sq m on the surface to be insulated.
- ✓ A similar layer shall also be applied on the inside surface of the insulation. Insulation sections shall be stuck to the surface with the joints staggered. The adjoining sections shall be tightly pressed together. All the joints shall be sealed with CPRX. Voids will be sealed with suitably cut pieces.
- ✓ A vapour barrier with cover of the insulation with 1000 gauge (250 micron) thickness white polythene followed by wrapping of Hessian with 50 mm overlaps and sealing all joints.
- ✓ The surface shall then be wrapped with 19 mm mesh 24 SWG GI wire, butting all the joints and laced down with 22 SWG GI lacing wire.
- ✓ On top of it 26 gauge thick Aluminum cladding should be done as outer finish. The Al cladding joints shall be sealed with white silicon sealant.

19. SS Ball Valves (Threaded end connections):

Rating - PN 64, threaded end connections. Material of construction: Body-ASTM A, Body connector-351 CF8, Connector seal & ball seat - PTFE, Ball & stem-AISI 304, Stem seal & gland packing- PTFE, Gland - AISI 316, Gland nut-SS304, Lever & Lever nut - SS 304, lever sleeve – PVC.

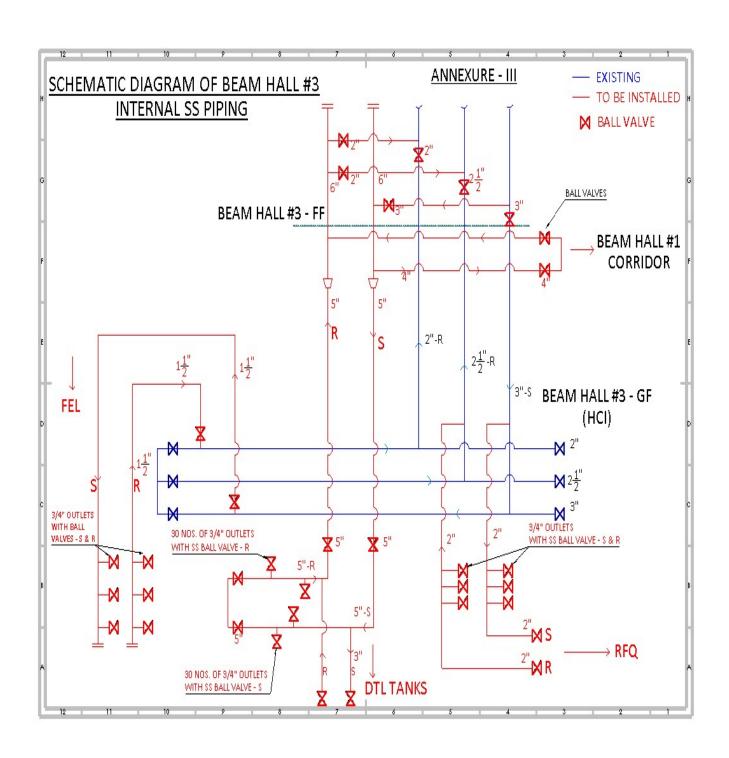
20. SS Ball Valves (Flanged end connections):

Rating-ANSI Class#150, Flanged End Connections, Test pressure for Shell-31 bars (hydrostatic), Test pressure for Seat leak- 5-7 bar (air), Material Specification: Body-ASTM A, Body Connector-351 CF8, Connector Seal & Ball Seat-PTFE, Ball&Stem-AISI304, Stem Seal & Gland Packing-PTFE, Gland-AISI304, Gland Nut-SS-304, Lever & Lever Nut -SS-304, Lever sleeve-PVC

List of Approved Makes:

SS Pipes	Ratnamani / Remi / Equivalent	
SS Fittings	Rolex /DHV/Swastik/Randhir/Sudhir/Gujarat Co.,/Sakhi/Tube Product Inc.	Engineering
SS Ball Valves	Shenco / Flowjet / Sakhi Engineers Pvt. Ltd	
Pressure Gauges	Fiebig / H.Guru / Micro / Wika	
Temp. Gauges	Fiebig / H.Guru / Micro / Wika	
Insulation XLPE/Fibre glass / EPS slabs etc. Beardsell/Lloyd/Thermobreak/Uptwiga/Owens/Corning/Armaflex/Trocellene/Thermofle		
Support Steel	Tata / Jindal.	
Filler Wires	Adore / BOC / L&T	
Paint / Primer / Thinner	Asian/Nerolac/Dulux	

Note: IUAC reserves the right to add or delete the approval list of makes for certain items, if found not compatible with the system. In case the make of any item is not mentioned, the same should be of well-known reputed ISI approved and should be got it approved by IUAC engineer before procurement/installation.



TENDER ACCEPTANCE LETTER (To be given on Company Letter Head)

D	ate:
T	0
T	ne Administrative Officer (S&P)
In	ter-University Accelerator Centre
A	runa Asaf Ali Marg
N	ew Delhi-110 067
Sı	ub: Acceptance of Terms & Conditions of Tender
To	ender Reference No:
	ame of Tender / Work:
D	ear Sir,
'T	We have downloaded / obtained the tender document(s) for the above mentioned fender/Work' from the web site(s) namely: as per your advertisement, given in the above entioned website(s).
1.	We hereby certify that we have read the entire terms and conditions of the tender documents from Page No to (including all documents like annexure(s), schedule(s), etc .,), which form part of the contract agreement and we shall abide hereby by the terms / conditions / clauses contained therein.
2.	The corrigendum(s) issued from time to time by your department/ organizations too have also been taken into consideration, while submitting this acceptance letter.
3.	We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
4.	We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/ Public sector undertaking.
6.	We certify that all information furnished by the our Firm is true & correct and in the event that

Yours Faithfully, (Signature of the Bidder, with Official Seal

the full said earnest money deposit absolutely.

the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of

$\underline{ANNEXURE - V}$

Price Bid Format (Prices should be quoted only in .XLS Format attached)

S.No.	Item Description	Unit	Qty.	Uni	Tot
0	Supply, Fabrication, Installation, Testing & Commissioning of all the items mentioned below. Detailed Scope of Work & Technical Specifications are mentioned in Annexure-I&II.			t Rat e	Am oun t
1	Stainless Steel, SS-304, Schedule-40S, ERW Pipes including fittings i.e., elbow, tee, bend complete with supports/hangers, SS 'U' clamps etc., (excluding flanges) & welding of all joints by TIG process with 100% DPT on both root & final joints as required of the following sizes:		22		
	6" NB				
1.1	5" NB (Specification same as per item#1)	RM	48		
1.2	4" NB (Specification same as per item#1)	RM	06		
1.3	3" NB (Specification same as per item#1)	RM	04		
1.4	2" NB (Specification same as per item#1)	RM	18		
1.5	1-1/2" NB (Specification same as per item#1)	RM	30		
2	SS-304, Flange, #150 SORF including CAF gaskets (die cut) etc., of the following sizes:	Nos.	02		
	6" NB				
2.1	5" NB (Specification same as per item#2)	Nos.	08		
2.2	4" NB (Specification same as per item#2)	Nos.	04		
2.3	3" NB (Specification same as per item#2)	Nos.	08		
2.4	2-1/2" NB (Specification same as per item#2)	Nos.	02		
2.5	2" NB (Specification same as per item#2)	Nos.	10		
2.6	1-1/2" NB (Specification same as per item#2)	Nos.	06		

3	SS-304, Blind Flange, #150 SORF of the following sizes:	Nos.	02	
	6" NB			
3.1	1-1/2" NB (Specification same as per item#3)	Nos.	02	
4	SS-304, Hex Bolts, Nuts & Washers for the following size flanges: 6" NB	Nos.	16	
4.1	5" NB (Specification same as per item#4)	Nos.	64	
4.2	4" NB (Specification same as per item#4)	Nos.	32	
4.3	3" NB (Specification same as per item#4)	Nos.	32	
4.4	2-1/2" NB (Specification same as per item#4)	Nos.	08	
4.5	2" NB (Specification same as per item#4)	Nos.	40	
4.6	1-1/2" NB (Specification same as per item#4)	Nos.	24	
5	Thermal insulation of SS Pipes / Valves with flanges with 50 mm thick TF quality expanded polystyrene of density 24 kg/cub.met & 26 G Al. sheet cladding etc. as per specifications of the following sizes:		22	
	6" NB SS Pipe			
5.1	5" NB Pipe (Specification same as per item#5)	RM	02	
5.2	4" NB SS Pipe (Specification same as per item#5)	RM	06	
5.3	2" NB SS Pipe (Specification same as per item#5)	RM	02	
5.4	1-1/2" NB SS Pipe (Specification same as per item#5)	RM	05	
5.5	4" NB Ball Valves with flanges (Specification same as per item#5)	Nos.	02	
5.6	3" NB Ball Valves with flanges (Specification same as per item#5)	Nos.	02	
5.7	2-1/2" NB Ball Valves with flanges (Specification same as per item#5)	Nos.	01	
5.8	2" NB Ball Valves with flanges (Specification same as per item#5)	Nos.	03	

6	SS-304 (CF8), Ball Valve, 3 Pc Design, ANSI Class-150, full bore/port, flanged end connections etc., as per specifications of the following sizes:	Nos	04	
	5" NB			
6.1	4" NB (Specification same as per item#6)	Nos.	02	
6.2	3" NB (Specification same as per item#6)	Nos	04	
6.3	2-1/2" NB (Specification same as per item#6)	Nos	01	
6.4	2" NB (Specification same as per item#6)	Nos	05	
6.5	1-1/2" NB (Specification same as per item#6)	Nos.	02	
7	SS dial type bourdon tube Pressure Gauge, 6" dia. along with SS Socket, SS U-tube, SS Ball Valve, SS Nipple and Socket welded on SS Pipes of the following Range: 0-16 kg/cm ²	1	06	
7.1	0-7 kg/cm ² (Specification same as per item#7)	Sets	06	
8	SS dial type Temperature Indicator, 6" dia., 0-60 Deg C along with SS Thermowell 3/4 " BSPT, SS Socket 3/4" BSPT welded on SS Pipes	Sets	06	
9	SS-304, Half Nipple 3/4"x 3" long NB threaded at one end (branching to be made from main supply / return SS pipes), Sch. 80 Thickness	Nos.	60	
10	SS-304 (CF8) Ball Valve of size - 3/4"NB, PN-64 Rating, Screwed End Connections	Nos.	60	
11	Making holes on RCC roof slab/floor/wall for entry of thermally insulated SS pipes, finishing of holes etc., as per the site conditions (by concrete core cutting machine) of the following sizes: a) 10" NB dia. – 2 Nos. b) 8" NB dia. – 2 Nos. c) 5" NB dia. – 2 Nos. Making holes on MS chequered plate of size 10" NB dia. – 2 Nos. for entry of thermally insulated SS pipes by gas cutting	Lot	01	
12	SS-304, Socket, 3/4" NB BSPF with a minimum wall thickness of 5mm, 3/4" NB SS Bellow, 3/4" NB BSPM plug etc., to be provided on SS Pipe of size 5" NB (Provision for future digital temp. display)	Set	02	
13	Applicable GST	No	01	