

अंतर - विश्वविद्यालय त्वरक केंद्र
INTER-UNIVERSITY ACCELERATOR CENTRE
(विश्वविद्यालय अनुदान आयोग का स्वायत्त निकाय)
(An Autonomous Centre of UGC)
अरुणा आसफ अली मार्ग, नई दिल्ली - 110067
Aruna Asaf Ali Marg, New Delhi - 110067

ई-निविदा आमंत्रण सूचना / NOTICE INVITING E-TENDER

निविदा संख्या:

Tender Number: NIT/15/BKG/I.1452/23-24

दिनांक: : 16/12/2023

Dated: 16/12/2023

(अंतर-विश्वविद्यालय त्वरककेंद्र (आईयूएसी) निदेशक आईयूएसी, नई दिल्ली की ओर से ई-प्रोक्योरमेंट पोर्टल के माध्यम से दो बोली प्रणाली, यानी तकनीकी और वित्तीय बोलियों के तहत उष्मारोधी चिल्ड वाटर पाइपिंग के आपूर्ति स्थापना परीक्षण और कमीशनिंग, आईयूएसी, नई दिल्ली-110067 के लिए पात्र / अनुभवी पार्टियों से ऑनलाइन बोलियां आमंत्रित करते हैं।

Inter - University Accelerator Centre (IUAC) invites online bids on behalf of the Director IUAC, New Delhi through e-procurement Portal under two bid system, viz., Technical and Financial bids, from eligible / experienced parties for the Replacement and SITC of Insulated Chilled Water Piping Work at IUAC, New Delhi-110067.

निविदा दस्तावेज, सेंट्रल पब्लिक प्रोक्योरमेंट (सीपीपी) पोर्टल <https://eprocure.gov.in/eprocure/app> से मुफ्त में डाउनलोड किए जा सकते हैं। इच्छुक बोलीदाता, जिन्होंने ई-प्रोक्योरमेंट पोर्टल में नामांकन/पंजीकरण नहीं किया है, उन्हें भाग लेने से पहले <https://eprocure.gov.in/eprocure/app> वेबसाइट के माध्यम से नामांकन/पंजीकरण करना होगा। बोलियां केवल <https://eprocure.gov.in/eprocure/app> वेबसाइट पर ऑनलाइन जमा करनी होगी। निविदाकारों/ठेकेदारों/बोलीदाताओं को सलाह दी जाती है कि वे ई-प्रोक्योरमेंट पोर्टल में दिए गए निर्देशों का पालन करें। बोली दस्तावेजों को 100 डी.पी.आई. में ब्लैक एंड व्हाइट स्कैन करें, जो स्कैन किए गए दस्तावेजों के आकार को कम करने में मदद करता है।

Tender Documents may be downloaded from Central Public Procurement (CPP) Portal free of cost <https://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled/registered in e-procurement portal should enroll/register before participating through the website <https://eprocure.gov.in/eprocure/app>. Bids should be submitted online only at website: <https://eprocure.gov.in/eprocure/app>. Tenderers / Contractors / Bidders 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 documents.

केवल ई-प्रोक्योरमेंट पोर्टल के माध्यम से प्राप्त बोलियों को ही खोला जाएगा। जो बोलियाँ उत्पादों/वस्तुओं के कार्य/आपूर्ति के वांछित प्रयोजनों को संपूर्ण रूप से पूर्ण करने में अक्षम होगी, उन बोलियों को अस्वीकार कर दिया जाएगा और केवल पूर्ण बोलियों पर विचार किया जाएगा। अंतर-विश्वविद्यालय त्वरक केंद्र के पास बिना कोई कारण बताए किसी भी/सभी निविदाओं को आंशिक/पूर्ण रूप से स्वीकार/अस्वीकार करने

का अधिकार सुरक्षित है और इस संबंध में आईयूएसी का निर्णय सभी बोलीदाताओं के लिए बाध्यकारी होगा।

Only bids received through e-procurement portal will be considered for opening. Bids not covering full scope of work/supply of the products/goods will be rejected and only complete bids will be considered. IUAC reserves the right to accept / reject any / all tenders in part / full without assigning any reasons whatsoever, and the decision of IUAC in this regard will be binding on all the bidders.

ई.एम.डी. का भुगतान करने के लिए बोलीदाता को "ऑनलाइन" भुगतान विकल्प का चयन करना होगा, जो <https://services.sabpaisa.in/pages/iuac.html> लिंक पर जाकर लागू होगा। बयाना राशि ऑनलाइन भुगतान के रूप में होगी और इसे बोली खोलने से पहले जमा किया जाना चाहिए। एम.एस.एम.ई./एन.एस.आई.सी. में पंजीकृत बोलीदाताओं को ई.एम.डी. के भुगतान से छूट दी गई है। एम.एस.एम.ई./एन.एस.आई.सी.(निविदा की गई वस्तु/कार्य के लिए पंजीकृत इकाई) से पंजीकृत निविदाकारों को तकनीकी बोली के साथ वैध पंजीकरण प्रमाणपत्र की प्रति <https://eprocure.gov.in/eprocure/app> वेबसाइट पर अपलोड करनी होगी।

Bidder has to select the payment option as "online" to pay the EMD as applicable by going to the link <https://services.sabpaisa.in/pages/iuac.html> . The Earnest Money Deposit shall be in the form of online payment and it should be deposited before the bid opening. Bidders registered with MSME/ NSIC are exempted from payments of EMD. However, they have to submit Bid Security Declaration Form. Tenderers registered with MSME/NSIC (the unit being registered for the item/work tendered) are required to upload copy of valid registration certificate in the website <https://eprocure.gov.in/eprocure/app> along with technical bid.

बोलीदाताओं को इस बात को विशेष ध्यान में रखने की सलाह दी जाती है कि वे अनिवार्य रूप से उपलब्ध कराए गए प्रारूप में ही अपनी वित्तीय बोलियां जमा करें और कोई अन्य प्रारूप स्वीकार्य नहीं होगा। यदि मूल्य बोली निविदा दस्तावेज के साथ मानक .XLS BOQ प्रारूप के रूप में दी गई है, तो इसे ही डाउनलोड करना होगा और प्रारूप को संशोधित किए बिना ऑनलाइन भरना और जमा करना होगा। यदि बोलीदाता द्वारा BOQ फाइल को संशोधित पाया जाता है, तो बोली को अस्वीकार कर दिया जाएगा।

Bidders are advised 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 .XLS BOQ Format with the tender document, then the same is to be downloaded and to be filled and submitted online without modifying the format. **If the BOQ file is found to be modified by the bidder, the bid will be rejected.**

उपरोक्त निविदा के संबंध में कोई भी शुद्धिपत्र/संशोधन केवल <https://eprocure.gov.in> और www.iuac.res.in वेबसाइट पर जारी किया जाएगा। बोलीदाता, अपनी बोली जमा करने से पहले निविदा दस्तावेज से संबंधित, प्रकाशित होने वाले किसी भी शुद्धिपत्र की जानकारी रखें। निदेशक, अंतर-विश्वविद्यालय त्वरक केंद्र के पास बिना कोई कारण बताए किसी भी/सभी निविदाओं को आंशिक/पूर्ण रूप से स्वीकार/अस्वीकार करने का अधिकार सुरक्षित है।

Any Corrigendum / Amendments in respect of above tender shall be issued on website <https://eprocure.gov.in> and www.iuac.res.in only. Bidders should take into account any corrigendum published on the tender document before submitting their bids. The Director, IUAC reserves the right to accept/reject any/all tenders in part/full without assigning any reasons thereof.

4. **E - TENDER DOCUMENT**

कार्य/ आपूर्ति का नाम Name of Work / Supply	उष्मारोधी चिल्ड वॉटर पाइपिंग के आपूर्ति स्थापना परीक्षण और कमीशनिंग, आईयूएसी के लिए,, नई दिल्ली-110067 में Replacement and SITC of Insulated Chilled Water Piping Work at IUAC, New Delhi-110067
अनुबंध संख्या / Tender Number	IUAC/ NIT/15/BKG/I.1452/23-24
अनुमादित निविदा मूल्य / Tender Value / Estimate only	Rs 1400000/- (रुपये चौदह लाख मात्र) (Rupees Fourteen Lacs only)
बयाना राशि/ Earnest Money Deposit	Rs. 28000/- (अठाईस हजार रुपये मात्र) (Rupees Twenty Eight Thousands only)
निष्पादन सुरक्षा जमा राशि/ Performance Security	10% ऑर्डर मूल्य का / of Order value
निविदा दस्तावेज शुल्क/ Tender Document Fee	शून्य NIL
बोली जमा करने की समाप्ति तिथि और समय (भाग-ए एवं भाग-बी) Bid Submission End Date and Time (Part - A and Part - B)	04/01/2024 अपराह्न 03:00 बजे
तकनीकी बोली खुलने की तिथि - भाग - ए Technical Bid Opening Date- (Part - A)	05/01/2024 अपराह्न 03:30 बजे
मूल्य बोली खुलने की तिथि - भाग-बी Price Bid Opening Date (Part - B)	तकनीकी रूप से योग्य समझे गए बोलीदाताओं को बाद में सूचित किया जाएगा To be intimated later on to the technically qualified bidders
Contact Person	1.Administrative Officer (S&P) E-mail: iuacstores@gmail.com 2. Mr. Bishamber Kumar E-mail: bkg.iuac@gmail.com

TENDER FORM

To

The Director
IUAC,
Aruna Asaf Ali Marg,
New Delhi 110067

Dear Sir,

I/We have read and examined the following Tender Documents relating to the **Replacement and SITC of Insulated Chilled Water Piping Work at IUAC Campus** at Inter-University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi -110067

1. Registration process on CPP portal for online bidding, searching for tender documents, preparation of bids, instruction for submission of bids & assistance to bidders
2. Special Instructions to Bidders for Registration with Competent Authority
3. General Terms & Conditions of Contract
4. Special Terms and conditions of Contract
5. Annexures
6. Price Bid

I/We hereby offer to execute the work complete in all respects specified in the underwritten Memorandum within the time specified therein, at the rates specified in the Price Bid and in accordance with the specifications and instruction in writing referred to in the condition of tender.

Bidder's Signature and Seal

INSTRUCTIONS TO BIDDERS

REGISTRATION PROCESS ON CPP PORTAL FOR ONLINE BIDDING

- i. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “**Online Bidder Enrollment**” on the CPP Portal which is free of charge.
- ii. **Bidder who registered already may skip the registration process and login to site through their user ID/Password**
- iii. As part of the enrollment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- iv. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- v. Upon enrollment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra/ Nic etc.), with their profile.
- vi. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
- vii. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- a) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- b) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- c) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Help desk.

PREPARATION OF BIDS

- a) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

- b) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- c) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GST Certificate etc.) has been provided to the bidders. Bidders can use “My Space” or ‘Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: Bidder should take into account any corrigendum published on the tender document before submitting their bids.

INSTRUCTIONS FOR SUBMISSION OF BIDS

1. The tender documents are available on our website www.iuac.res.in & www.eprocure.gov.in. Tender documents may be downloaded from IUAC's website www.iuac.res.in and CPPP site <https://eprocure.gov.in/eprocure/app> as per the schedule as given in the tender document.
2. The tender shall be submitted online in two parts, viz., Technical bid and Financial (price Bid) bid.
3. The offers submitted by hand/Post/Fax/email shall not be considered. No correspondence will be entertained in this matter.
4. All the pages of bid being submitted must be sequentially numbered by the bidder irrespective of nature and content of the documents before uploading.
5. The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.
6. Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
7. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
8. Bidders are requested to note that they should necessarily submit their financial (price Bid) 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 by all the bidders. Bidders are required to download the BOQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
9. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
10. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

11. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

12. Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

13. The bid summary has to be printed and kept as an acknowledgment of the submission of the bid. This acknowledgment may be used as an entry pass for any bid opening meetings.

14. Not more than one tender shall be submitted by one contractor or contractors having business relationship.

15. Under no circumstance will father and his son(s) or other close relations who have business relationship with one another (i.e. when one or more partner(s)/director(s) are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable to rejection.

16. The bidders are advised to visit CPPP website <https://eprocure.gov.in/eprocure/app> at least 3 days prior to closing date of submission of tender for any corrigendum / addendum/ amendment.

17. Bids will be opened as per date/time as mentioned in the **Tender Document**. After online opening and evaluation of technical bids, the results of their qualification as well Price-Bid opening will be intimated.

18. Submission of a tender by a tenderer implies that he has read all the stipulations contained in this tender document and has acquainted him of the nature, scope and specifications of the items to be followed.

19. The tenderer shall submit all documents after duly filling the same in all respects. Tenders which are found to be vague or incomplete shall be rejected summarily.

20. Tenders shall be submitted ON-LINE, it shall be signed by one who has been authorized by the board of director /director / manufacture/ firm owner /their authorized agents through a resolution/ authority letter. Copy of the resolution/ authority letter in favor of the person signing must accompany the tender.

21. Tenders containing erasures and alterations of the tender documents are liable to be rejected unless these are authenticated by the person signing the Tender Documents.

22. Code of Integrity for Public Procurement

IUAC requires that the bidders, suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the following are defined:

Sr. No.	Term	Meaning
(a)	Corrupt practice	The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution.
(b)	Fraudulent practice	a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract.
(c)	Collusive practice	means a scheme or arrangement between two or more bidders, with or without the knowledge of the purchaser, designed to establish bid prices at artificial, non-competitive levels.
(d)	Coercive practice	means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.
(e)	Anti-competitive practice	any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of the Competition Act, 2002, between two or more bidders, with or without the knowledge of the purchaser, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels
(f)	Conflict of interest	participation by a bidding firm or any of its affiliates that are either involved in the consultancy contract to which this procurement is linked; or if they are part of more than one bid in the procurement; or if the bidding firm or their personnel have relationships or financial or business transactions with any official of purchaser who are directly or indirectly related to tender or execution process of contract; or improper use of information obtained by the (prospective) bidder from the purchaser with an intent to gain unfair advantage in the procurement process or for personal gain
(g)	Obstructive Practice	materially impede the purchaser's investigation into allegations of one or more of the above mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the purchaser's Entity's rights of audit or access to information.

ASSISTANCE TO BIDDERS

1. More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

2. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

3. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Help desk. The contact number for the help desk is 1800 3070 2232, 91-7878007972 and 91-7878007973.

(Seal & Signature of bidder)

**SPECIAL INSTRUCTIONS TO BIDDERS FOR REGISTRATION
WITH COMPETENT AUTHORITY**

Bidders Registration

1. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
2. **“Bidder”** for the purpose of this tender (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several person, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated here in before, including any agency, branch or office controlled by such person, participating in a procurement process.
3. **“Bidder from a country which shares a land border with India”** for the purpose of this tender means:
 - a) An entity incorporated, established or registered in such a country; or
 - b) A subsidiary of an entity incorporated, established or registered in such a country; or
 - c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d) An entity whose beneficial owner is situated in such a country; or
 - e) An Indian (or other) agent of such an entity; or
 - f) A natural person who is a citizen of such a country; or
 - g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
4. **“The Beneficial owner”** for the purpose of (3) above will be as under:
 - i. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation:-

 - a) “Controlling ownership interest” means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
 - b) “Control” shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
 - ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
 - iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

v) In case of a trust, the identification of beneficial owner(s) shall including identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

5. **“Agent”** for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons.

6. **Sub-contracting in works contracts** including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

***Please note that the bidders shall provide the mandatory Certificates in the following formats on their registered bidder's letter heads:**

Certificate for Tenders involving procurement from border country

“I/We have read the clause regarding restrictions of procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I/we certify that we are not from such a country or, if from such a country, have been registered with the Competent Authority and will not sub-contract any work to a contracting from such countries unless such contractor is registered with the Competent Authority. I/we hereby certify that we fulfill all requirements in this regard and is/are eligible to be considered. [Where applicable, evidence of valid registration by the competent Authority shall be attached.]”

Certificate for Tenders for Works involving possibility of sub contracting

“I/We have read the clause regarding restrictions of procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I/we certify that we are not from such a country or, if from such a country, have been registered with the Competent Authority and will not sub-contract any work to a contracting from such countries unless such contractor is registered with the Competent Authority. I/we hereby certify that we fulfill all requirements in this regard and is/are eligible to be considered. [Where applicable, evidence of valid registration by the competent Authority shall be attached.]”

Certificate by Bidders in the cases of specified TOT

“I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder does not have any ToT arrangement requiring registration with the competent authority.”

OR

“I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder has valid registration to participate in this procurement.”

(Seal & Signature of bidder)

GENERAL TERMS AND CONDITIONS OF CONTRACT

2.1. 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. Submission of complete tender document duly stamped and signed by tenderer with technical bid is mandatory. 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.

2.2 Technical Bid (Part-A): In this bid the bidder should upload his company profile, organizational setup, credentials, list of plant, machinery & tools in his possession. The following documents are essentially to be submitted with technical bid for qualification. Price bid of only those bidders will be opened who are technically qualified.

- a) Tender Acceptance Letter (written on bidder letter head, duly signed and stamped.) as per format provide in **Annexure B**, as a token of acceptance of the NIT conditions, with this bid.
- b) Profile of the Tenderer as per **Annexure C**.
- c) Proof of Earnest Money Deposit & MSME have to submit Bid Securing Declaration in lieu of EMD/Bid Security as per **Annexure D**.
- d) Code of Integrity & Conflict of Interest undertaking on letter head as per **Annexure E**.
- e) Undertaking by the bidder as per **Annexure F**.
- f) Certificate/ Undertaking for site visit (if applicable) as per **Annexure G**.
- g) Performance statement as per **Annexure-H**
- h) Check list for pre-qualification Bid as per **Annexure – I**.
- i) Scope of Works and technical specifications as per **Annexure -A**.
- j) Copies of the work orders and completion certificates of work completed during last 7 years as below:
one work order of value not less than than 80% of the estimated value
or
two work orders of value each of 50% of the estimated value
or
three work orders of value each of 40% of the estimated value
for the similar kind of items (SITC of Insulated M.S. piping) to Govt. Dept. (Central/State) / PSU / Autonomous bodies / Universities / Public / Pvt Ltd company.
- k) Copies of previous three financial years (2020-21, 2021-22 & 2022-23) Income Tax Return (ITR).
- l) Average annual turnover during the last three financial years ending 31st March, 2023 [2020-21, 2021-22 & 2022-23] shall be at least Rs 10 lacs. Duly audited financial statement/balance sheet/certified by CA to be submitted as supporting documents.
- m) Self- attested copies of MSME, GST registration and PAN number.
- n) Signed and stamped copy of NIT.

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. However the transport will be arranged by IUAC.

Technical bids which are not confirming to the technical specifications will be disqualified.

2.3 Price Bid (Part-B):

2.3.1 In this bid, the bidder is required to quote his item rates in the BOQ formed in accordance with the scope of work, terms & conditions & technical specifications enclosed. The rates/price quoted by contractor should be all inclusive i.e., should include all material cost, labour, services, plant/machinery/tools & tackles required for work, freight, Insurance, and all applicable Govt. Duties, excluding GST (payable separately, if applicable), levies & taxes, transport/cartage of materials/labour and all other expenses not specifically mentioned but reasonably implied. Nothing over and above these rates shall be payable to contractor. Further, nothing extra in rates will be considered due to any site difficulties. It is mandatory for bidder to quote all items rate as asked for in the BOQ/ PRICE schedule. Failure in not filling some item rates will lead to be considered them as zero and accepted. No further compensation on that item can be considered later. The bidders should quote unconditional rates.

2.3.2 The bidder shall fill up the Bill of Quantity (BOQ) which is price bid. The BOQ should filled up carefully as it will be used for evaluation of L1. The contract will be awarded to L1 bidder subject to fulfilment of other terms and conditions of tender. MSME bidder will be given price preference subject to fulfilment of conditions as prescribed by the Government of India from time to time.

1. The price quoted shall remain fixed during the contract period and shall not vary on any account.
2. No payment other than as specified in the price schedule for each item and which has been accepted by the bidder, shall be payable to the successful bidder.

2.4 Period Of Validity of Bids: Tender shall be valid for acceptance without any change in rates and NIT conditions for a period of 90 days from the date of opening of Price bid. No Bidder can withdraw/or modify his tender or revoke the same within the said period of 90 days. If a Bidder on his own withdraws or revokes the tender or revises or alters or modifies the tender for any item or condition within a period of aforesaid 90 days his EMD deposit shall stand forfeited and action will be taken as per Bid Security Declaration. The validity of accepted rates is extendable for a period of 180 days from the date of issue of Award Letter, with mutual consent of both the parties.

2.5 Earnest Money Deposit: EMD @ 2% of total estimate value Rs. 28000 (Rupees twenty Eight Thousands only) is payable by the bidder. Bidder has to select the payment option as “online” to pay the EMD as applicable by going to the link <https://services.sabpaisa.in/pages/iuac.html>. The Earnest Money Deposit shall be in the form of online payment and it should be deposited before the bid opening.

EMD of technically disqualified bidders will be returned within 15 days from the date of evaluation of the technical bids. The refund of EMD to all the bidders except lowest shall be made within 15 days from the date of opening of price bid. The EMD of the successful lowest bidder (L1) shall be held back till the submission of PBG.

Bid Security shall be refunded to the un-successful bidders on award of contract and to successful bidders on receipt of Performance Security.

EMD is the mandatory requirement however the MSMEs/NSIC registered with Government Agencies are exempted from payment of Earnest Money Deposit (EMD) and are required to submit Bid Security Declaration as per Annexure C form subject to conditions given below: -

MSMEs participating in the tender must submit valid & authorized copy of certificate of registration. The MSME's Bidder to note and ensure that nature of services and goods/items

manufactured mentioned in MSME's certificate matches with the nature of the services and goods /items to be supplied as per Tender.

The registration certificate issued by agencies must be valid as on Bid closing date of the tender. Bidder shall ensure validity of registration certificate in case bid closing date is extended.

The MSMEs who have applied for registration or renewal of registration with any of the authorized agencies / bodies but have not obtained the valid certificate as on close date of the tender, are not eligible for exemption / preference.

2.6 Submission of Bids

The online bid shall be neat, plain and intelligible. The authorized person should sign each page of the bid. They should not contain any terms and conditions, printed or otherwise, which are not applicable to the Bid. The conditional bid will be summarily rejected. Insertions, postscripts, additions and alterations shall not be recognized, unless confirmed by bidder's signature.

2.7 Deadline for Submission of Bids

a) Bids must be submitted on-line before the due date and time as specified in the critical date sheet.

b) IUAC may extend this deadline for submission of bids by amending the bid documents and the same shall be suitably notified on the websites only.

2.8 Late Bids : The on-line bid submission would not be possible after the deadline for submission of bids

2.9 Bid Opening and Evaluation of Bids

Opening of Bids

a) The E-bids shall be opened on-line. The technical bids will be evaluated to short-list the eligible bidders. The technical bids of only eligible bidders shall be considered for further processing (technical evaluation).

b) Bidder whose technical bid is found to be acceptable and meeting the eligibility requirements as specified in this tender will be considered as technically qualified.

c) IUAC will open commercial bids of only the technically qualified/short-listed bids

d) In case, the day of bid opening is declared a holiday by the government, the E-bids will be opened on the next working day at the same time. No separate intimation shall be sent to the bidders in this regard.

e) Since E-bid is an on-line process, the E-bid opening or any other process may be delayed due to any technical/server issue. If any such issue arises, this will not be tantamount to process delay and IUAC will not be responsible for the same.

f) On opening of bids on-line, accepting the bid would not mean that the firm is technically or financially qualified.

g) Instances of Multiple L1s: The order of selection of successful contractor in case of multiple L1 may be as under conditions:

i. Submission of past experience and work orders issued by IUAC.

ii. Submission of highest turnover among the bidders who, if qualifies the above clause.

2.10 Tender liable to rejection : Tenders which do not fulfil all or any of the conditions laid down in this notice, or contain conditions not covered and / or not contemplated by the Conditions of tender document and/or expressly prohibited therein or stipulate additional/alternative conditions shall be liable to be rejected and his earnest money will be forfeited. Tenders shall also be liable for rejection on any of the following grounds: -(i) Tenders containing remarks uncalled for

(ii) Conditional tenders

- (iii) Tenders not submitted on prescribed Proforma
- (iv) Telegraphic / Fax/ Postal tenders
- (v) Tenders submitted late
- (vi) Tenders with NIL consideration
- (vii) Not submitted required documents as per tender

2.11 Amendment of Tender Documents

2.11.1 At any time prior to the deadline for submission of bids, IUAC may, for any reason, whether on its own initiative or in response to the clarification request by a prospective bidder, modify the bid document.

2.11.2 All prospective bidders who have downloaded the bidding document will be notified of the amendment(s), if any, on IUAC website / CPP portal, and such amendments/modifications will be binding on them.

2.11.3 IUAC at its discretion may extend the deadline for the submission of bids if the bid document undergoes changes during the bidding period, in order to give prospective bidders time to take into the consideration the amendments while preparing their bids.

2.11.4 Bidders should keep viewing the above-mentioned websites for any corrigendum/change. There wouldn't be any newspaper advertisement towards the same. If any bidder misses the information published on the website and their bid is rejected, no complaint would be entertained.

2.12 Reservation of Procurement for certain class of products from Micro and Small Enterprises (MSEs) shall be considered as per the rules of Government of India.

2.12.1 MSEs procurement policy is meant for procurement for only goods produced and services rendered by MSEs and not for any trading activities by them as MSE Unit will not get any purchase preference over another MSE Unit.

2.13 Evaluation of Proposals & Award Criteria

2.13.1 The bidder must quote for all the items mentioned under Section **ANNEXURE-C-Schedule of Requirement**. The lowest price criteria shall be applied on the total composite amount (Inclusive of all) of all items taken together.

2.13.2 Preliminary scrutiny of the proposal will be made to determine whether they are complete, required processing fee (Tender Fee) and bid security (EMD) have been furnished, whether the uploaded documents have been properly signed and whether the bids are generally in order. Proposals not conforming to such preliminary requirements will be prima facie rejected.

2.13.3 Bids complying with all the eligibility requirements mentioned in this tender document and fulfilling the specifications and schedule of requirements shall be treated as substantially responsive bids. Responsiveness of the bids shall be determined on the basis of the contents of the bid itself and shall not be determined by extrinsic evidences.

2.13.4 IUAC, if provided for in the NIT, may ask bidders for presentation on the solution offered. Failure on part of bidder to arrange the presentation on the date & place fixed shall result in the rejection of technical bids and financial bids of these bidders shall not be opened. Also, if it is found after presentation that the solution offered is not meeting the specifications prescribed by, such bidders shall be treated as substantially non-responsive. IUAC decision shall be final in this regard. The place for presentation shall be conveyed to the bidders at an appropriate date.

2.13.5 Commercial bids of only those bidders will be opened who are found to be technically responsive and the work shall be awarded to the commercially lowest bidder.

2.13.6 Bidder should quote their rates by uploading in prescribed Performa in BOQ_XXXX.xls only. Commercial bids/ prices/ rates other than the format provided or elsewhere in the bid document shall be rejected by IUAC.

2.13.7 The rates quoted in figures would be automatically converted in words in BOQ_XXXX.xls. The bidder should carefully cross check the prices entered in figures with corresponding figures converted in words. In case of discrepancy between words and figures, the rates quoted in words shall be treated as final. The correct amount will be calculated by multiplying unit price with quantity and in case of any discrepancy, the corrected amount shall be considered and total of all corrected amount shall be bidder's total quoted amount.

2.13.8 In the copies of supply order/ contract/ agreement/ experience certificate submitted by the bidder, if the currency is other than Indian Rupees, the value of work in Indian Rupees shall be determined by using the exchange rate declared by Reserve Bank of India as on the last date of submission of technical/ commercial bids and the eligibility of the bidder shall be determined accordingly.

2.13.9 The successful bidder shall not be allowed to sub-contract works to any contractor from a country, which shares a land border with India unless such contractor is registered with the Competent Authority of Government of India.

2.14 Performance Security

The successful bidder shall be required to deposit an amount equal to 10% of the tendered value of the contract as Performance Security within 15 days after notification of the award / LOI and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the contractor, including Defect Liability Period (DLP).

Performance security may be accepted as Insurance Surety Bond³⁷, account payee demand draft, fixed deposit receipt from a commercial bank, bank guarantee issued/ confirmed from any of the commercial bank in India or online payment in an acceptable form, safeguarding the Procuring Entity's interest in all respects. In case of a JV, the BG towards performance security shall be provided by all partners in proportion to their participation in the project. If tenderer fails to deposit the said performance security within the period as indicated, the LOI may automatically stand cancelled without any notice to the tenderer and without prejudice to any other right.

2.14.1 Security Deposit : A security deposit equal to nil % of the value of work (excluding of GST) will be deducted from Contractor's bills and shall be refunded after the completion of defect liability period of one year after ensuring successful performance of the system executed by the contractor.

2.15 Scope of Work/Technical Specification

2.15.1 If, for any unforeseen reasons, IUAC is required to change the Scope of the Supply, this change shall be acceptable to the bidder without change in the unit price quoted.

2.15.2 IUAC reserves the right to reject one/ all the bids or cancel the tender without assigning any reasons there for.

2.15.3 IUAC reserves the right to accord relaxation uniformly to all the bidders in case the bid submitted by all the bidders are found to have minor deviation.

2.16 Time-line for completion: The works (Design, Drawings, approvals, manufacture, supply, shifting, installation, testing and commissioning) should be completed within 3 (three) months from the date of issue of Purchase Order / After submission of PBG / site clearance from IUAC to start the work, which ever is later.

The work shall be started within 7 (seven) days of giving site clearance by IUAC. Any delay in this is liable to liquidated damages as per NIT clause 2.25.

In case the dehumidifier installation gets delayed, delayed period shall not be considered in

total time of completion.

Any delay in completion of the work / supply due to reasons attributable to the vendor / manufacturer is liable to liquidated damages as per NIT clause 2.25

However, under the force-majeure conditions as mentioned in the NIT clause 2.26, IUAC may grant suitable time extension for which vendor has to request along with proper justification / reasons well in advance to the Director, IUAC for approval without any prejudice or price escalation.

2.17 Guarantee & Defect liability period

The supplied material should be guaranteed from manufacturing/ engineering defect and bad material/workmanship for a minimum period of one year from the date of acceptance of the goods by IUAC. During this period if any replacement/repairs/rectification of any of the supplied item etc. is needed, the supplier shall do the same free of cost to IUAC. If the equipment/ part needs to be shipped to the service Centre for repair/rectification during the guarantee period, the shipment charges should be borne by the supplier. The supplier shall guarantee that all equipment shall work satisfactorily and that the performance and efficiency of the equipment shall not be less than the specified values. The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of at least two years.

2.18 Site Conditions

Contractor shall acquaint himself fully with the site conditions and the working environment of IUAC before quoting his rates. A Bidder shall be deemed to have full knowledge of the site, whether he inspects it or not and no compensation or otherwise of any charges incurred or to be incurred consequent on any misunderstanding or otherwise shall be admissible.

No Compensation on account of any site difficulties will be entertained, at a later date, after the award of the work. (The bidder should sign undertaking as per ANNEXURE-G enclosed in tender. Failure will result in forfeiture of performance security / EMD).

2.19 Installation, Commissioning, Demonstration, Inspection and Tests

Bidder shall be responsible for Design, Supply, Installation, Commissioning, Demonstration, Inspections and Tests wherever applicable and for after sales service including supply of spares during the warranty and thereafter as specified in the NIT.

2.20 Insurance

For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes.

2.21 Payment Terms

The payment shall be made on timely submission of the bills in proper format by the contractor after due certification by the IUAC engineer responsible for supervision of the work. TDS and other statutory deductions will be made as per rules.

2.21.2 Payment for Goods and Services supplied from India: The payment shall be made in Indian Rupees, as follows:

- I. Sixty (60) percent Payment will be released after delivery of the material at site.
- ii. Forty (40%) percent Payment will be released after satisfactory completion of installation, successful testing, commissioning & acceptance of the system by IUAC.

2.22 Escalation: No escalation over and above items rates quoted by the bidder, shall be paid during the execution of contract.

2.23 Deviations: No deviation from the stipulated terms and conditions will be allowed. Tender will be unconditional.

2.24 Delay in the supplier's performance

2.24.1 The supplier shall deliver the goods and perform the services under the contract within the time schedule specified by the purchaser in the Schedule of Requirements and as incorporated in the contract.

2.24.2 Any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:

- (i) Imposition of liquidated damages,
- (ii) Forfeiture of its performance security and
- (ii) Termination of the contract for default.

If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the purchaser in writing about the same and its likely duration and make a request to the purchaser for extension of the delivery schedule accordingly. On receiving the supplier's communication, the purchaser shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

2.25 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: for repair works costing up to Rs Ten Lakhs – one (1%) percent of the contract value per week and for all other works half (0.5%) percent of the contract value per week of delay subject to a maximum of ten (10 %) percent of the contract value. However, during the delayed period, IUAC also reserves the right to get balance portion of 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 his bills/dues.

2.26 Force Majeure

The right of the contractor/supplier to proceed with the work shall not be terminated because of any delay in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the contractor / supplier, including not limited to acts of God, Pandemic, or of the public enemy, restraints of a sovereign state, firms, wars, fires, epidemics, quarantine restrictions, floods, unusually severe weather. If a Force Majeure situation arises, the supplier / contractor shall promptly notify 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 IUAC, Director will be final and binding on the supplier/contractor.

2.27 Rules governing the Contractor's employees working in the Centre's premises:

The contractor's employees working inside the IUAC campus will abide by IUAC terms. Any damage to the Centre's property due to mishandling, carelessness etc., on the part of

contractor or his workmen will be recoverable from the contractor's bills.

- a) All the persons deployed by the contractor at IUAC will have to carry valid gate-passes, which will be issued only after submission of their bio-data in desired format. Any negligence / offense on their part will attract immediate removal from site.
- b) All the employees will have to be covered under insurance against any personal accident and IUAC will not be liable for payment of any compensation on that account.
- c) All the persons deployed by the contractor at IUAC will have to get the police verification done from competent authorities. The contractor has to submit the police verification certificate and acknowledgment slip of the same for all the employees to IUAC.
- d) During execution of work, the contractor should follow all standard norms of safety measures/precautions to avoid accidents/damages to men, machines and buildings. On non-adherence of this clause, suitable fines, as decided by the Director, IUAC shall be imposed.
- e) Manpower deployed by the contractor at our site for carrying out the contracted works is strictly prohibited being associated with any other works other than the awarded works on the campus.
- f) If any contractor's person is found to be misbehaving or to be negligent in the duties assigned to him/her, IUAC reserves the right to seek his/her removal from IUAC, with suitable replacement within 24 hours.
- g) 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.
- h) In case of any injury to contractor's person at IUAC campus, due to any reason, the contractor shall be responsible for taking the person to the hospital / nursing home / dispensary for treatment at his own cost. If in the case of emergency IUAC vehicle is used, IUAC incurs any expenditure on the treatment of the person, the contractor will be suitably charged for the same.
- i) Under no circumstances the contractor will be permitted to sublet his work to any another contractor while working at IUAC. Likewise, the Contractors persons will not be permitted to undertake any private jobs in the IUAC Campus.
- j) No labour below the age of 18 years shall be employed on work.
- k) IUAC will provide free water and electricity at one point and contractor has to make his own arrangements from that point as per his requirements.

2.29 Clarification of Bids and shortfall documents: During the evaluation of Techno commercial or Financial Bids, Indenter on behalf of IUAC may, at its discretion, but without any obligation to do so, ask Bidder to clarify its bid by a specified date. Bidder should answer the clarification within that specified date (or, if not specified, 7 days from the date of receipt of such request). The request for clarification shall be submitted in writing or electronically and no change in prices or substance of the bid shall be sought, offered, or permitted that may grant any undue advantage to such bidder.

If discrepancies exist between the uploaded scanned copies and the Originals submitted by the bidder, the original copy's text, etc., shall prevail. Any substantive discrepancy shall be construed as a violation of the Code of Integrity, and the bid shall be liable to be rejected as non-responsive in addition to other punitive actions under the Tender Document for violation of the Code of Conduct.

IUAC reserves its right to, but without any obligation to do so, to seek any shortfall information/ documents only in case of historical documents which pre-existed at the time of the tender opening, and which have not undergone change since then and does not grant any

undue advantage to any bidder.

2.30 Water /Electricity for Execution of Works:

(Not Applicable for this work)

Electricity and water required to execute the work shall be made available at one point by IUAC subject to the following conditions: -

(I)The Electricity and water charges @ 1% and 1 % respectively shall be recovered on gross amount (excluding of GST) of the work done.

(ii) The contractor(s) shall make his/their own arrangement of electricity and water connection by laying of electric cable / pipelines from the existing main source of electric/water supply. **(iii)** The Department do not guarantee to maintain uninterrupted supply of electricity / water and it will be incumbent on the contractor(s) to make alternative arrangements for electricity /water at his/ their own cost in the event of any temporary break down in the Government electric/ water main so that the progress of his/their work is not held up for want of electricity and water. No claim of damage or refund of charges will be entertained on account of such incident.

2.31 The Centre reserves the right to reject any or all the tenders in full or in part without assigning any reasons whatsoever and the decision of the IUAC 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. Tender once submitted will remain with IUAC and will not be returned to the bidders.

2.32 Jurisdiction: Notwithstanding any other courts having jurisdiction to decide the questions forming subject matter of a suit any and all actions and proceedings arising out of or relative to this contract (including any arbitration in terms thereof) shall lie only in the court of competent Civil jurisdiction in this behalf at New Delhi., where this contract is to be signed on behalf of and only the said court shall have jurisdiction to try any such actions and/or proceedings to the exclusion of all other courts.

2.33 Dispute Settlement: It is mutually agreed that all differences and disputes arising out of or in connection with these agreements shall be settled by mutual discussions and negotiations if such disputes and differences cannot be settled and resolved by discussions and negotiations then the same shall be referred to the sole Arbitrator appointed by the Director, IUAC whose decision shall be final and binding on both the parties. The contract shall be governed by laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/ processing.

2.34 Termination of Contract: - The Director, IUAC reserve the right to terminate the contract immediately on account of poor workmen ship, failure to mobilize 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. In such cases, the Bank Guarantee equivalent to one month's contract value held with IUAC and the EMD will be forfeited. The contract can also be terminated at the request of either party. In such cases, the contractor is liable to give two months' notice period or else to pay two months O&M bill value in-lieu of the notice period.

2.35 Resolution of Dispute: All disputes arising out of this contract shall be referred to the sole arbitration of a person selected by the contractor out of the panel of three persons nominated by the Director IUAC, and his decision /award shall be final and binding on both parties. The Arbitration shall be governed under the Indian Arbitration Act 1996 or any statutory modifications or re-enactment thereof and rules made there under and for the time being in force shall apply to the arbitration proceeding under this contract. Any dispute arising out of this contract will be subjected to jurisdiction of New Delhi/Delhi.

2.35 Correspondence: All the correspondence in respect of tender/contractual obligation

shall be addressed to A.O. (S&P), Inter-University Accelerator Centre (IUAC), P.B. No. 10502, Aruna Asaf Ali Marg, New Delhi-110067.

For any inquiries regarding technical aspect may contact Mr. Bishamber Kumar, Engineer-In-Charge, e-mail: bkg.iuac@gmail.com, Phone: +91-11-24126018, 24126022.

2.36 This notice inviting tender will form part of the contract agreement to be executed by the successful tenderer on a stamp paper of Rs.100/-.

Accepted

Signature of the Bidder

Name and Address of the Bidder)

SPECIAL TERMS AND CONDITIONS OF CONTRACT /WORK

- a) **CARRYING OUT OF WORK** : All the work shall be carried out in accordance strictly as per the specifications given in the tender to the total satisfaction of the Institute
- b) **CONTRACTOR'S RESPONSIBILITY FOR THE MANNER OF EXECUTION OF WORKS** : **The contractor shall be solely responsible for the manner and the method of executing the work.** The work shall be subject to the approval of IUAC from time to time for purposes of determination of the question whether the work is executed by the contractor in accordance with the contract.
- c) **SPECIFICATIONS:** During execution of work, the contractor should follow all standard norms of safety measures/precautions as per relevant codes to avoid accidents/damages to man, machines and buildings, at his own cost. If specifications for an item of work are not covered as per approved Specifications of tender, the same shall be decided by the Institute and shall be binding on the contractor.
- d) **AGENCY'S RISKS:** All risks of loss of a or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract other than the excepted risks are the responsibility of the contractor.
- e) **ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK:** If it shall appear to IUAC, or our representatives, that any work has been executed with unsound, imperfect or unskillful workmanship **then the contractor shall be liable to pay compensation.**
- f) If during the execution of works, any damage is caused to IUAC property by contractor's workers, contractor will duly make good the loss. IUAC has the right to make suitable deduction from contractor's bills along with penalty, if contractor fails to make good the loss.
- g) 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 authorized representatives of the Centre. Material delivery challans duly entered at the main gate shall to be submitted. It shall always prevail, unless otherwise specifically stated, that the entire provisions of Tender document been opened upon and accepted for compliance by the contractor without any reservation.
- h) If during the execution of works, any damage is caused to IUAC property by contractor's workers, contractor will duly make good the loss. IUAC has the right to make suitable deduction from contractor's bills along with penalty, if contractor fails to make good the loss.
- i) During execution of work, the contractor should follow all standard norms of safety measures/precautions as per relevant codes to avoid accidents/damages to man, machines and buildings, at his own cost. Contractor will have his own arrangement to escort the labour to the nearest hospital for treatment in case any injury happens to any worker during execution of work.

Seal & Signature of Bidder

1. Introduction:

a) The air dehumidifier cum air handling units along with piping / ducting is installed at a height of 45 meter (296 msl) inside staircase tower.

Old air dehumidifier cum air handling unit, insulated chilled water piping, insulated ducting (process air supply / return, reactivation air in / out), electricals, foundation shall be dismantled, cut into pieces, lowered through the hoisting shaft (clearance of 1450x1450 mm) and shifted to scrap yard at a distance of 500 m at ground level (252 msl).

The new foundation, insulated piping work, insulated ducting work, electricals shall be done for the newly installed air dehumidifier cum air handling unit in place of old one.

b) Dismantling of 4” NB, 200 meter long, chilled water supply and return insulated pipe line running over wall and roof of the BH-I&II. The same including valves shall be disconnected from AHU-1,2&7, chilled water header and blanked off at connected ends.

2. Scope of Supply and Work:

The price quoted by the bidder shall cover the cost of items and work as following:

1. This covers disconnection / dismantling of existing old dehumidifier, insulated / un-insulated piping, electrical, ducting etc. by unbolting / cutting wheel, installed at 45 m height at top inside stairs tower. The dismantled items shall be cut into pieces of required sizes < 1400 mm x 1400 to lower through the opening of 1450 x 1450 mm hoisting shaft and shall be shifted to scrap yard inside IUAC at ground level 500 m away from the area. (item – 21 of BOQ).
2. Proper arrangement should be made by vendor for ventilation and exhaust of smoke while cutting & welding works.
3. This also covers dismantle of Ph-I to Ph-2 bypass 200 meter long (supply and return) 4” M.S. Insulated chilled water line, removal by unbolting (badly rusted bolts) of 4 nos of butterfly valves, supports and providing and fixing of 8 nos of 4” blind flanges. (item – 3 of BOQ).
4. **Site Installation Conditions:** It is mandatory that vendors should inspect the site before quoting the rates, so as to judge the volume and nature of the work.
5. The items shall be shifted to / from at site in through stairs / hoisting shaft at a height of 45 meter at top inside stairs tower.
6. It includes SITC of M.S. Chilled water piping connections to air dehumidifier cum air handling unit including fabrication by ERW welding, pipes, fittings, three way modulating valves, balancing valve, butterfly valves, pressure gauges, glass thermometers, insulation etc.
7. It covers supply and fixing of ducting for supply / return, process / re-activation / fresh air including duct thermal insulation as per specifications / requirement.
8. It covers supply and construction of civil foundation for dehumidifier as per requirement.

9. It covers supply and fixing of electrical power / control cables laid in the tray / wall and include cable, ties, compression glands, thimbles, terminations, laying, saddles, fasteners etc.as per requirement.
10. It covers the dismantle of old false wall / ceiling panels (10 sqm approximate) over the hoisting shaft and refixing of same or replacement with new as required.
11. During the execution of work if any damage / defacing is occurred to the existing building / installation, the same will be rectified by the bidder without any cost to us.
12. The contractor shall give the performance and capacity test of all the equipments for it's rated parameters after installation, testing & commissioning at site. It is entirely bidder's responsibility to ensure that the room desired air condition is maintained. And test for the same shall be conducted for minimum one week running.
13. Flanges should be welded from inside and outside. Unit rates for flanges should be inclusive of nuts, bolts, washers, gaskets, welding etc.
14. Ducting should be inclusive of design, drawing, SITC of ducts, bends, vanes, supports, hangers, clamps, anchor fasteners, duct flanges, openings etc. as per specifications.
15. Duct Measurement will be as under :
 Area of Duct Straight length = Perimeter x running length.
 Area Duct Bend = Perimeter x (Short Length + Long Length)/2
 (Exclusion : Vanes, dampers and flanges will not be taken in measurement.)
16. Pipe Measurement will be as under :
 straight length (excluding valves, Y-strainers, flanges etc.)
 Insulation : Middle Perimeter of Insulation section x running length.
 Cables : Running length.
17. Un-Insulated pipe shall be painted from atmospheric affects.
18. The quantities shown on the price schedule are only tentative. The actual measurements will only be known after the exact design & drawing is finalised by the successful bidder with due approval of the owner.
19. Final payment will only be made against the actual quantities installed and not on the basis of items supplied. 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.
20. **Inspection** : Inspection visits for raw material, during fabrication, before final dispatch and Testing arrangement at factory / manufacturer's place shall be made by the bidder. However IUAC will make their own transport arrangements to visit the factory.
21. All the civil works like foundation, making openings in civil structures, support grouting, filling of opening etc shall be in the bidder's scope.
22. The sample of all the items (where ever required by IUAC Engineer) shall be got approved by IUAC engineer before delivery of material at site.

23. The workmanship and materials shall have warranty period of one year from the date of commissioning.

24. Codes and Standards : All the design/material / workman ship / fabrication shall conform to the latest editions of relevant Indian / American Standard Codes.

Documents to be furnished by Vendor After Award of Contract :

1. Activity bar Chart
2. List of Make, Model and specifications of all the items for approval before supply at site.
3. General Arrangement Drawing of foundation, piping, ducting, electricals etc. or as required by Engineer In-charge.
4. Manufacturer's material and test certificate, reports, manuals for for pipe, valves, insulation, duct sheet, electricals etc. should be submitted for all the material.

(Technical Specifications):

4. MS Piping & Fittings:

4.1 Pipe :

The M.S. pipes shall be ERW Black (≤ 150 mm shall be as per IS 1239, PTI, Heavy Class and ≥ 200 mm as per IS - 3589, 6 mm thick), beveled ends.

4.2 Flanges :

The flanges forged ASTM - A105, SORF, ANSI B16.5, 150 lb.

Flanges may be tack welded into position, but all final welding shall be done with joints dismounted. 3 mm thick gaskets shall be used with all flanged joints. The gaskets shall be fiber reinforced rubber as approved by the Engineer-In-Charge.

Counter flanges for equipment having flange connections shall be used & provided by successful bidder.

Flange pairs shall be used on all such equipment, which may require to be isolated or removed for service e.g. Pumps, refrigeration machines etc.

All threaded valves shall be provided with nipples and flange pairs on both sides to permit flange connections, for removal of valves from main lines for repair/replacement.

4.3 Fittings : All fittings should confirm to ASTM A234, GR WPB, Sch.40, ANSI B 16.9. All integral branch off shall be stub connected. All fittings shall be tested to a pressure of 15 KSC.

4.4 Bolts : All bolts shall be as per IS:1367 CL 4.6 with dimensional standard as per IS:1364 and length to suit.

4.5 Nuts: All nuts shall be as per IS:1367 CL 4.0 with dimensional standard as per IS:1364 and Hexagonal.

4.6 Gaskets: All gaskets shall be as per CAF IS:2712 GRW/3 with dimensional standard of ANSI B 16.21 150# and 3 mm thick Ring Type.

4.7 Welding : Welding operations shall confirm to Chapter V of the code of Refinery piping ANSI B31.3 - latest edition.

All pipe ends shall be prepared V-end & tac welded before final welding.

The welder will be pre-qualified by us based on the 180 degree face and 180 deg root bend test of the samples to be test welded by him in our presence and in 45 degree position and the test result will be furnished by you from a govt approved test house. All expenditure to be incurred on the pre-qualification of the welder will be born by you including the cost of samples and arrangements made thereof. **Welding work will be allowed only after completion of welder test and submission of test report.**

Welders and welding procedures shall be certified as per section IX of ASME Boiler and pressure vessel code - latest edition.

The electric current for welding will be DC straight polarity (electrode negative).

All pipes shall be butt welded as per ANSI B16.25.

The welding electrode to be used will be only **Advani/ IOL**.

4.8 Testing Piping : In general, tests shall be applied to piping before connection of equipment and appliances. In no case shall the piping, equipment or appliances be subjected to pressures exceeding their test ratings.

The tests shall be completed and approved before any insulation is applied. Testing of segments of pipe work will be permitted, provided all open ends are first closed, by blank offs or flanges.

After tests have been completed the system shall be drained and flushed 3 to 4 times and cleaned of all dust and foreign matter. All strainers, valves and fittings shall be cleaned of all dirt, fillings and debris.

All piping shall be tested to hydraulic test pressure of at least one and half times the maximum operating pressure but not less than 10 kg/cm² for a period of not less than 12 hours. All leaks and defects in the joints revealed during the testing shall be rectified to the satisfaction of the Engineer-In-Charge, without any extra cost.

All the piping systems shall be tested in the presence of the Engineer-In-Charge or their authorized representative. Advance notice of test dates shall be given and all equipments, labor, materials required for inspection, and repairs during the test shall be provided by the contractor. A test shall be repeated till the entire systems are found to be satisfactory to the above authority. The tests shall be carried out for a part of work if required by Engineer-In-Charge in order to avoid hindrance in the work of the insulation contractor.

Miscellaneous piping, tests with air at 10.5 kg/cm² without drop in pressure. for a minimum of 24 hours.

The contractor shall make sure that proper noiseless circulation is achieved through all piping systems. If due to poor bond, proper circulation is not achieved, the contractor shall bear all expenses for carrying out the rectification work including finishing of floors, walls and ceiling damaged in the process of rectifications.

The contractor shall provide all labour and materials to make provision for removing water and throwing it at the proper place, during the testing or/and after the testing to avoid damages to employer or other contractors' properties. Any damages caused by the contractor to the employer or other contractors' properties, shall be borne by the contractor.

4.9 Pipe Supports : it should be made of structural steel & include G.I. clamps, anchor fasteners, wooden blocks, insulation pad. Supports will be installed at no larger than 3 meters and as per the design calculations to be furnished by you and consisting of C-channels, Angles, I section etc. of 6 mm minimum thickness. Extra support should be provided at bends & fittings like valves to avoid undue stress at pipes. The support columns have to be appropriately grouted using 1:2:4 concrete mix. The fabrication of hangers, anchors and materials shall conform to the requirements of chapter " Fabrication of pipe hangers, supports, anchors, Sway bracing and piping B31.3-latest issue.

4.10 Butterfly valve :

1. Duty: Chilled Water / HOT Water / Condenser Water
2. Pressure Rating : Confirm to BS:5155 PN-10/PN-16 & API-609 (As specified in BOQ)

3. pH Value : Between 4 and 10
4. Single body caste, Slim seal, wafer type,
5. Body construction material should be graded cast iron
6. Disc. Construction material should be Stainless steel.
7. Disc. Seat should be an integral liner made of EDPM / Nitrite rubber, tight shut-off design
8. Provide Hand Lever operated valves with locking arrangement for every 10° turn for valves up to NB200mm.
9. Valves more than NB 350 mm shall allow for seat replacement at site.

4.11 Balancing Valves:

Duty	: Chilled Water / HOT Water / Condenser Water
Pressure Rating	: PN-10/PN-16 (As specified in B.O.Q.)
pH Value	: Between 4 and 10

Material Specification

Hand Wheel	– CI-220
Body / Bonnet–C.A. F.-	(CI 260 GG 25)
Body / Bonnet Bolts	–A 307, GR.B
Gland Packing	–Graphite asbestos
Stem Seal	–EPDM
Stem	–SS 410
Disc.	– SS 410
Seat Seal	–EPDM (Site replaceable)

Tight Shut Off Type

Flanges drilled to IS 6392 (PN 16) Standards

The spindle shall be non-rising type, and its movement should be lockable/tamper proof type.

Micro-meter scale in the wheel should allow fine settings up to 1/10th of a hand wheel turn.

The spindle should be lockable with a lock screw, allowing the limiting maximum opening of valve, to pre – determined position, while still allowing to use as shut-off valve.

T.A.B. (Testing, Adjusting and Balancing)

Measurement of pressure drops and flow rate should be possible using the body taps and quarter turn cocks.

Digital measurements compatibility is a pre – requisite.

Published ‘K’ factor of valve for different hand wheel turns should be available.

4.12 Three- way Motorised valve : AHU CHW Temp. control system consisting of

1. Three-way Diverting / mixing valve -

a) Rating P-10, Globe Type, Stem Travel- Linear with minimum travel of 19 mm for Sizes <=3”NB / 38 mm for sizes <3” NB, C.I. Body with Flanged ends for sizes >2”NB) / Bronze body with screwed ends for sizes <=2”NB, Stem – S.S., Disc / Plug/Trim-S.S., Seat-Teflone / rubber seat.

Valves shall have a nominal range- ability of 50:1 or better.

e) Valves shall be designed for equal percentage flow characteristics with water and linear flow characteristics with steam applications

In case of threaded ends, the nipple fittings and flanges upto pipe line to be provided at all ends and included in cost.

2. Actuator :

a) It shall be Linear electronic actuator, shall mount directly to the bonnet of the valve and connect to the valve stem without requiring adjustments, link-ages, brackets, or adapters. Once mounted, a

U-bolt must be used to secure the actuator to the valve collar. Single point, bolt, or single screw actuator type fastening techniques are not acceptable. It shall be spring loaded such that in case of power failure it returns the valve to the normal position.

b) Linear actuators shall be floating control with controllers that provide a switched or floating single pole double throw output, or modulating control actuators that provide a selectable analog output of 0 – 10 Vdc and 2 – 10 Vdc in one model.

c) Linear actuators shall have an ambient temperature rating of 14°F to 122°F and storage rating of -40°F to 158°F. **the Siemens make LG-Ni 1000, Duct mounted temp. sensor having 400 mm sensing element length with temp. range of -50 deg C to 80 deg C and IP 42 protection, Siemens make PI Controller. PI Controller should be mounted in MS powder coated enclosure, double door type, outdoor duty, IP-55 protection with lockable facility. It should be suitable for the flow rated of pipe. Please note that the controller / actuator shall be proportionate (not on/off) opening controller type. It shall be BMS compatible.**

DUAL PLATE CHECK VALVE

Duty : Chilled Water / HOT Water / Condenser Water

Pressure Rating : Confirm to BS:5155 PN-10/PN-16 & API-609

pH Value : Between 4 and 10

Material Specification

Dual plate with independent springs in a central hinge pin, to allow for reduced hammer and non-slam

Valve design should confirm to APS-594 and API-6D

One piece body, cast cut of graded C.I.

Disc. Shall be stainless steel

4.13 Y-Strainers : The strainers shall either be Y type of fabricated steel body, tested up to pressure applicable for the valves. The strainers shall have a perforated S.S. sheet screen with 3 mm perforation, filtration area of minimum 75%, Y- strainers shall be provided with flange ends. The strainers shall be designed to facilitate easy removal of filter screen for cleaning, without disconnection of pipe line.

4.15 Temperature Gauges (Industrial Glass Thermometer type) : It Shall be stem type with centigrade & Fahrenheit scales. Temperature gauge shall be of the separate able socket type and shall have extended brass stem, where required, for insulated pipes. Temperature gauge shall be installed at supply and return of equipments. Range of scales shall be 30-120 .F (0-50 Deg C).

4.16 Pressure Gauges : It shall be brass bourdon tube type, 150 mm Dial, 3/8" BSP bottom connection, 0-7 kg. Per sq.cm (0-100 psi). They Shall be installed on inlet and outlet at chillers, condensers and pumps. They shall be connected to the pipes by welding socket, GI nipple, S.S. Ball valve (Shenco - Make), S.S. U-tube, S.S. Socket & PI.

4.17 Pipe Insulation Procedure (Outdoor) : Insulation material shall be fire retardant TF quality expanded polystyrene moulded pipe section of density 24 kg/cum and a thickness of 50 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. Sections shall be held by 18G GI wire at gap of 500 mm. Cover the pipe section with 250 micron thick white polythene with 50 mm overlap on all joints. Outer finish shall be provided with Aluminum cladding of 24G thickness, 50 mm overlap on all joints, screwed at a

distance of 5” to hold the joints

4.18 Pipe Insulation Procedure (Indoor): Same as above.

4.19 Insulation Procedure for Valves & Flanges : Same as above.

4.20 Painting : All exposed metal surface of pipes, fittings and supports must be applied with one coat of red-oxide primer & two coats of synthetic enamel ICI / Nerolac paint of Approved shade. The surface to be painted shall be cleaned thoroughly before painting.

Technical Specifications for the Air Distribution system

This specification covers the design, manufacture, construction, features and erection of air distribution system. This covers air distribution system for the air conditioning and ventilation including the local exhaust. The items / workmanship shall conform to the latest applicable Indian/British/USA standards.

Codes and standards

The following standards are applicable where not specifically stated:

IS 3069 for Ducting

IS 655 Specification for Metal air ducts

IS 277 Specification for Galvanized Steel Sheets

4.1 The sheets prior to galvanising shall be annealed and normalised so that crack do not develop on fabrication. The zinc coating shall not be less than 120 gm / sq. m. - Class 3.

4.2 The thickness of sheets, type of bracings and other fabrication details shall be generally in accordance with details here under.

4.3 All the ducts shall be fabricated from GI sheet of thickness as required.

4.4 All the transverse joints connections shall be made with 25 mm pocket or bar slips or flanged joints not more than 2500 apart.

4.5 All the bracings between joints shall be made of minimum 25 x 25 x 3 mm MS angle. No bracings are required if transverse connections are 1250 mm or less apart.

4.6 All the ducts over 450 mm in either dimensions shall be cross broken except to those that will have insulation with cement plaster. It is not necessary to have this for air outlet connections.

4.7 The seams on the duct corners shall be of the Pittsburgh type. Longitudinal seams will be smooth from inside.

4.8 The flanges when used for transverse joints shall be joined with each other with GI bolts and nuts of M8 size. The bolts shall be placed at 125 mm apart. All gasket shall be 3 mm thick and 25 mm minimum width shall be used for leak tight.

4.9 The M.S. Angle flanges shall be connected to ducts with rivets at approx. 100 mm apart.

4.10 The M.S. Angle used for bracings shall be riveted at about 125 mm apart.

4.11 Duct supports : The rectangular ducts shall be supported by 10 mm M.S. Rods and 40 x 40 x 3 mm M.S. Angles. The M.S. Rods and angles shall be given a coat of primer. The duct supports shall not be at a distance greater than 1800 mm. The M.S. Rods shall be hung from the building steel. All supporting material will in the scope of bidder. For ducts with thermal insulation, the M.S. Angles and supports shall not be in direct contact with ducts.

4.12 Flexible connections : Where the sheet metal duct connects to intake or discharge of fan units a flexible connection of at least 150 mm width shall be provided of closely woven, double layer asbestos / canvas. The material shall be attached to angle iron frames on equipment and to similar frames on duct or casing by means of steel band or collar fitting over the end of the flexible connection and bolted through angle iron frame so as to clamp securely between the band and the angle frame.

4.13 Diffusers, Grills : The vendor shall ensure that the diffusers and grills offered of pre-requisite capacity, throw and terminal velocity. The air pressure drop will be taken into account by vendor in duct sizing.

The diffusers and grills will be of 18 gauge powder coated extruded aluminum section supply air grills with volume control dampers, return grills and diffusers without volume control dampers. SA grills shall be of adjustable double deflection type and return grill shall be of

fixed single deflection type.

Suitable vanes shall be provided in the duct collars to have a uniform and proper air distribution. Blank off baffles wherever required shall be provided.

4.14 Transformation and Breeches : All the curves, bends, offset and other transformations shall be made for an easy and noiseless flow of air. The throat of every branch duct shall be sized to have the same velocity as in the main duct to which the branch duct is connected.

4.15 Caulking : When the duct passes through the wall, all the openings between masonry and duct shall be neatly caulked or sealed to prevent movement of air from one space to the other.

4.16 Splitters and Dampers : These shall be provided at suitable points for proportional volume control of the system. They shall be opposed blades, made in 18 gage powder coated GSS, quadrant type with suitable handle and locking device mounted outside of the duct in an accessible location. Close – Open position shall be marked with paint.

4.17 Bend: All elbows shall be such that the throat radius is 75% of the width. In case the throat radius is smaller, suitable single thickness vanes of approved details will be provided.

4.18 Flashing: For the ducts penetrating the outside the walls, the vendor shall make provisions of flashing.

4.19 Vanes: Suitable vanes shall be provided in the duct collars to have a uniform / proper air distribution. Blank off baffles wherever required shall be provided.

4.20 Plenum: The plenum chamber or connection to fans, dampers etc. shall be constructed in 18 gauge GSS, supported on 40 x 40 x 6 mm M.S. Angle frames. All the vertical angles shall be riveted at 125 mm apart to the casing. "Pecora" or equivalent caulking compound shall be inserted between the base of the angle and all masonry constructions to which angles are fastened.

4.21 Bird Screen: It should be made of Expanded welded wire mesh of 2.5 to 3 mm thickness and mesh size of 1/2" square. It should be fixed on a suitable size frame to be fixed on fresh air intake / exhaust air. It should be powder coated / hot deep galvanised.

4.22 Louvers : It should be made of 18 gage GSS / Extruded Aluminium. Face vel should be less than 500 FPM for clear area.

4.23 Fire Damper : 1.5 Hours rating fire dampers with fusible link at wall / floor crossing / return duct, as per approved shop drawings. Include limit switch, motorised damper with motor and damper & necessary control wiring from fire dampers to fire panel and AHU control panel for motor switch off.

4.24 Duct Thermal Insulation (outdoor service): Insulation material shall be 50 mm thick Expandable polystyrene (EPS) slabs, 24 kg/cum density / Resin Bonded Fibre Glass of K=0.035 Kcal/hr.m.Deg.C, 32 kg/cum density in mat section form (glass wool not accepted).

Application: The surface to be insulated shall be thoroughly cleaned and allowed to dry. Hot Bitumen of grade 85/40 or conforming to IS 702 shall be uniformly applied @1.5 Kg/Sqm on the surface to be insulated. A similar layer shall also be applied on the inside surface of the insulation. CPRX compound of STP may also be used instead of bitumen. Insulation sections / mat shall be wrapped /stuck to the surface with the joints staggered. The adjoining sections shall be tightly pressed together. All the joints shall be sealed with bitumen. Voids will be

sealed with suitably cut pieces. Cover the insulation with 500 microns Polythene faced Hessian with 50 mm overlaps and sealing all joints. The surface shall then be wrapped with 19 mm 24 SWG GI wire mesh, butting all the joints and laced down with 22 SWG GI lacing wire. On top of it, 12.5 mm sand cement (1:3) plaster shall be applied in two layers, the second layer being brought to a smooth finish leaving expansion rings. A water proofing compound shall be added to the cement before its application. Finally the finish will be encased in 26 gauge aluminum sheet.

4.25 Duct Thermal Insulation (indoor service): Insulation material shall be of Fire retardant closed cell cross linked Poly-ethylene (XLPE) foam with Aluminium foil finish thermal insulation sheet of thickness – 13 mm, Density - 30 kg/cum, K value of 0.031 Wm/k at 0 Deg. C. **Application:-** The surface to be insulated shall be thoroughly cleaned and allowed to dry. Fevicol SR 505 synthetic rubber adhesive or equivalent shall be uniformly applied on the surface to be insulated. Fire retardant closed cell cross linked Polyethylene (PE) with inbuilt Aluminium foil finish thermal insulation sheets of 13 mm thickness should be wrapped all around the ducting. Voids will be sealed with suitably cut pieces. Joints should be sealed with Aluminum tape.

4.26 Acoustic Lining: Initial 3 m of supply air ducting from the supply air plenum shall be provided with acoustic insulation of open cell cross linked Poly-ethylene (XLPE) foam thermal insulation sheet of thickness – 25 mm, covered with tissue paper and 26 gauge minimum perforated aluminum sheet.

4.27 Under deck Roof Insulation: Insulation material shall be fire retardant TF quality expandable polystyrene (EPS) moulded slab section of density 24 kg/cum and a thickness of 50 mm thick in slab section form, $K=0.035$ Kcal / hr.m.Deg.C and (glass wool not accepted). The CPRX compound shall be applied on the surface of roof and insulation slabs. Finally the slabs shall be fixed to the roof using GI washers 100 x 100 mm at a distance of 500 mm using suitable anchor fasteners, screws and gitties etc.

4.28 Inspection and testing: The ducts, branches, elbows etc. shall be inspected and the joints and connections are to be checked before they are assembled in position. After assembly the system shall be checked for tightness, vibration and noise.

4.29 Balancing: The air distribution system shall be tested and balanced by the vendor so that the requisite temperature and air flow are maintained throughout the space to be air conditioned. All instruments required for testing and balancing the air distribution system should be provided by the vendor.

4.30 Measurement : Measurement of duct quantity will be on the basis of measured running length of installed duct. No measurement will be done for flanges, vanes, splitters etc. They shall be included in cost of duct. **Specifications for the Air Distribution system**

This specification covers the design, manufacture, construction, features and erection of air distribution system. This covers air distribution system for the air conditioning and ventilation including the local exhaust.

Codes and standards

The following standards are applicable where not specifically stated:

IS 3069 for Ducting

IS 655 Specification for Metal air ducts

IS 277 Specification for galvanized Steel Sheets

1. The sheets prior to galvanising shall be annealed and normalised so that crack do not develop on fabrication. The zinc coating shall not be less than 450 gms / sq. m. - Class 3.
2. The thickness of sheets, type of bracings and other fabrication details shall be generally in accordance with details as required.
3. All the ducts shall be fabricated from GI sheet of thickness as required.
4. All the transverse joints connections shall be made with 25 mm pocket or bar slips or flanged joints not more than 2500 apart.
5. All the bracings between joints shall be made of minimum 25 x 25 x 3 mm MS angle. No bracings are required if transverse connections are 1250 mm or less apart.
6. All the ducts over 450 mm in either dimensions shall be cross broken except to those that will have insulation with cement plaster. It is not necessary to have this for air outlet connections.
7. The seams on the duct cones shall be of the Pittsburgh type. Longitudinal seams will be smooth from inside.
8. The flanges when used for transverse joints shall be joined with each other with GI bolts and nuts of M8 size. The bolts shall be placed at 125 mm apart.
9. The M.S. Angle flanges shall be connected to ducts with rivets at approx. 100 mm apart.
10. The M.S. Angle used for bracings shall be riveted at about 125 mm apart.
11. **Duct supports:** The rectangular ducts shall be supported by 10 mm M.S. Rods and 40 x 40 x 3 mm M.S. Angles. The M.S. Rods and angles shall be given a coat of primer. The duct supports shall not be at a distance greater than 1800 mm. The M.S.Rods shall be hung from the building steel. All supporting material will in the scope of bidder. For ducts with thermal insulation, the M.S.Angles and supports shall not be in direct contact with ducts. Supports shall be painted with one coat of red oxide primer followed by two coats of synthetic enamel paint.
12. **Flexible connections:** Where the sheet metal duct connects to intake or discharge of fan units a flexible connection of at least 150 mm width shall be provided of closely woven, double layer asbestos / canvas. The material shall be attached to angle iron frames on equipment and to similar frames on duct or casing by means of steel band or collar fitting over the end of the flexible connection and bolted through angle iron frame so as to clamp securely between the band and the angle frame.
13. **Transformation and Breeches:** All the curves, bends, offset and other transformations shall be made for an easy and noiseless flow of air. The throat of every branch duct shall be sized to have the same velocity as in the main duct to which the branch duct is connected.

14. **Caulking:** When the duct passes through the wall, all the openings between masonry and duct shall be neatly caulked or sealed to prevent movement of air from one space to the other.
15. **Splitters and Dampers:** These shall be provided at suitable points for proportional volume control of the system. They shall be made in 18 gage GSS of quadrant type with suitable locking device mounted outside of the duct in an accessible location.
16. **Bends:** All elbows shall be such that the throat radius is 75% of the width. In case the throat radius is smaller, suitable single thickness vanes of approved details will be provided.
17. **Flashing:** For the ducts penetrating the outside the walls, the vendor shall make provisions of flashing.
18. **Vanes:** Suitable vanes shall be provided in the duct collars to have a uniform / proper air distribution. Blank off baffles wherever required shall be provided.
19. **Plenum:** The plenum chamber or connection to fans, dampers etc. shall be constructed in 18 gage GSS, supported on 40 x 40 x 6 mm M.S. Angle frames. All the vertical angles shall be riveted at 125 mm apart to the casing. "Pecora" or equivalent caulking compound shall be inserted between the base of the angle and all masonry constructions to which angles are fastened.
20. **Acoustic Lining:** Initial 3 meter of supply air ducting shall be provided. A grid of 600 mm x 600 mm will be made inside the plenum / Duct by using GI channels of 25mm x 25mm x 1.25 mm. The channels should be screwed on the Duct / plenum walls. The 25 mm thick glass fiber, resin bonded density of 32 kg/sq m in mat form will be placed in the grids and then covered with tissue paper & 24 gage minimum perforated aluminum sheet.
21. **Thermal Insulation:** requirement of thermal insulation is as per the Insulation specifications furnished elsewhere.
22. **Inspection and testing:** The ducts, branches, elbows etc. shall be inspected and the joints and connections are to be checked before they are assembled in position. After assembly the system shall be checked for tightness, vibration and noise.
23. **Balancing:** The air distribution system shall be tested / balanced by the vendor so that the requisite temperature and air flow are maintained throughout the space to be air conditioned. All instruments required for testing and balancing the air distribution system should be provided by the vendor.

List of Approved Makes		
S. N.	Item	Make
4	G.I Sheets	Jindal, SAIL, Nippon
5	FA Louvers, Fire / VC Damper, Diffusers , Grills	Ravistar, Carryaire, Dyna Craft, Zeco, Systemair, Supercut
6	Ducting Insulation	Supreme, Armacel, A-flex, K-flex
7	Strip Heaters	Dasspass, Escorts, KEPL
8	Thermocol, fibre wool	Beardsell, Trocellene, Twega
9	Tapes	Birla 3M, Supreme
10	Vibration, Isolation Pads	Dunlop, Resistoflex, Kanwal
11	Starters, Switch gear	Siemens, Schneider, ABB, L&T, GE
12	VFD's	Siemens, Schneider, ABB, Danfoss, Fuji, Rockwell, Johnsons control, Mitsubishi
13	ACB, MCCB, MCB	Siemens, Schenider, ABB, Legrand, Havells
14	Single Phase Preventor	L&T, Minilac
15	Auxiliary Relays, Contactors	L&T, Siemens, GE Power Control
16	Timer	L&T, Siemens, GE Power Control
17	Digital VAF/ Power Meter	Conserv, Schnieder
18	Voltmeter, Ammeter	Siemens, AE, Rishabh(L&T)
19	Indicating Lamps	L&T, Siemens, Control & Switch Gear
20	Selector Switches	L&T, Siemens, Kaycee
21	Current Transformer	AE, Cappa
22	Thimbles, Lugs	Dowell
23	Power Cables	CCI, Gloster, Incab, Siemens, Universal
24	Control Cables and wires	Finolex, National, Delton, Ecko, Havel, Cord
25	Switches, Sockets	Anchor, Alstom
26	MS / PVC Conduit ISI Marked	BEC, AKG, NIC, Plaza, Kalinga, Precision, Gerard

IUAC reserves the right to accept / reject any of the above list of approved make, if not found to meet the specifications. In case the make of any item is not mentioned, same should be ISI marked / reputed make and should be got approved from the IUAC.

Annexure - III (Price Bid Part B)

S.N	Item Description (Rates quoted shall include SITC of Items as per Scope of Works & Supply, Technical Specifications, Data Sheets etc. mentioned in NIT.	Unit	Qty.	Unit Rate	Total Cost
1	M.S. Black Pipe, ERW, Class-C, including supports, bends, tee, reducers, union etc. Size - 4" NB	RM	42		
1.1	Size – 2" NB	RM	3		
1.2	Size – 1" NB	RM	18		
2	M. S. Flanges, 150 lb rating with gaskets and fasteners etc, Size – 4" NB	nos	16		
2.1	Size - 3" NB	nos	5		
2.2	Size - 2" NB	nos	4		
2.3	Size - 1" NB	nos	8		
3	Blind Flanges, M.S. 12 mm thick, (Shall mate to existing flanges bolt holes) Size-4"	nos	8		
4	Butterfly Valve, S.S.Disc, PN 16 pressure rating Size – 8" NB	nos	4		
4.1	Size – 4" NB	nos	5		
4.2	Size-1" NB PN16	nos	2		
5	Balancing valve, S.S. Disc and S.S. Spindle, PN 10, nozzles, measuring scale etc. Size- 4" NB	nos	1		
6	3 - Way Mixing modulating valve, globe type, linear travel including motor, linear actuator, controller, weather proof box with view glass. Size - 3"NB	nos	1		
7	Auto air vents, 15 NB	Nos	2		
8	Pressure gauge, 150 mm dial dia. 0-7 kg/sqcm including 3/8" threaded m.s. socket, S.S. Threaded Nipple, S.S. Screwed Ball valve (Shenco), S.S.U-tube, S.S Socket etc.	Nos	4		
9	Industrial Glass Thermometers, 0-50 Deg C	Nos	4		

	including M.S. Socket, Brass heavy bellow made of brass rod.				
10	Connections for Air vent / drain points 1/2" NB with M.S. Socket, M.S.Heavy Nipple, S.S.Shenco valve.	Nos	6		
11	GI Pipe, Class - C, Size - 2" NB, screwed joints for condensate drain.	RM	24		
12	Foundation RCC slab of 150x150 mm as per required length and no. including epoxy painting of the same.	m ³	0.5		
13	Rubber Pads, 150x150x12 mm,	Nos	50		
14	GSS ducting, 22 gauge thickness	SQM	60		
15	Fresh air intake including GI mesh ½ ", louver, volume damper and Pre-filter section with pre filter (2 nos)	SQM	0.3		
16	GI / Al Volume Damper (2 nos)	SQM	0.6		
17	Flexible connection, double layer including GI flanges, gaskets, nuts, bolts etc.	sqm	1.2		
18	Thermal Insulation, 50 mm thick, XLPE (Thermocole) , Pipe sections, density 24 kg/sqcm, 250 microns polythene sheet wrapping and 24 G Al Sheet covering around. Pipe, Size- 4" NB	RM	48		
18.1	Pipe, Size- 2" NB	RM	30		
18.2	Pipe, Size- 1" NB	RM	18		
18.3	Butterfly / Three-way / Balancing Valves, size - 4" or less	nos	10		
19	Duct Insulation, 13 mm thick sheet of XLPE foam closed cell with aluminium foil.	SQM	70		
20	Electrical Connection of the dehumidifier with existing cable including thimble, double compression glands, etc. as required.	nos	1		
21	Dismantle of dehumidifier cum air handling including dismantle / disconnection of insulated piping, ducting, electrical, foundation, drain pipes etc and shifting of same to scrap yard at ground from 45 meter height through stairs / chain pulley block.	Lot	1		
22	Dismantle of old wall / ceiling panels (10 sqm approximate) over the hoisting shaft and refixing	10	sqm		

	of same or replacement with new as required.				
23	Dismantling of insulated air duct at upto 45 meters height inside stairs tower, lowering through hoist shaft and shifting the same to the scrap yard at ground at IUAC.	sqm	70		
24	Dismantling of insulated pipes by cutting wheel only including valves, supports etc at upto 45 meters height inside stairs towers, lowering through hoist shaft and shifting the same to the scrap yard at ground at IUAC.	Rm	240		
25	Dismantle of water pump complete including insulated chilled water piping and electrical disconnections, foundation etc.	Lot	1		
26	Dismantle of M.S. Platform frame of 2100 mm L x 2100 mm W (with inside opening / cover of 1450mm x 1450 mm) by unbolting / cutting / as required. This is mounted at a height of 36 m inside the vertical hoist shaft. Refixing of same / new to original condition / position. Fencing shall be provided to avoid any accidental human falling after dismantle till refixing. If required.	Lot	1		
27	Shifting of all the malbe i.e. dismantled concrete malba, insulation material etc. out of IUAC to the MCD designated site.	Lot	1		
28	Buyback for the old pipes, valves etc. Scrap. Weight – 2500 kgs approx.	Kgs	2500		
29	Buyback for old dehumidifier scrap i.e copper coils, blowers, electrical motors, side panels etc. Weight – 500kgs approx.	lot	1		
	Total				
In words (Rupees					

TENDER ACCEPTANCE LETTER

(Annexure - B)

(To be given on bidder's Letter Head)

Date:

To,
The Director
IUAC, New Delhi-67

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: IUAC/NIT/

Name of Tender / Work: -

Dear Sir,

I/ We have downloaded / read and examined the tender document(s) for the above mentioned Tender /Work from the web site(s) namely:
as per your advertisement, given in the above mentioned website(s).

4. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc ..), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

5. The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.

6. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

7. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.

8. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation 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.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

PROFILE OF THE TENDERER
(To be given on Bidder's Letter Head)

(Annexure - C)

TENDER FOR Dismantle and SITC of Chilled Water Piping Work

1. Name of the Firm / Organization :
2. Address :
3. Telephone No. / Mobile No. &
Name of the Contact Person :
4. Fax No. :
5. E-mail ID :
6. Month and Year of establishment :
7. Name of proprietor / partners/director :
8. No. of years of experience in this field,
with Reference, Certificates :
9. Annual Turnover during the last
three years (Enclose copies of
Audited Financial Statement duly
certified by CA
2019-20 :
2020-21 :
2021-22 :
10. Whether the firm is a Tax
Assessee? If so, please give the
details of PAN No. and copies
of ITR files for the last three
financial years :
11. GST Registration No. :
12. Name of the OEM and address :

Signature of the Bidder & Seal

BID SECURING DECLARATION FORM

(Annexure - D)

TO BE SUBMITTED BY MSME ONLY ON LETTER HEAD

Tender/Bid No.:

Date:

To
The Director
Inter University Accelerator Centre
(IUAC)
New Delhi
Dear Sir/Madam,

We, the undersigned, solemnly declare

that:

We understand that, according to the conditions of this Tender Document, the bid must be supported by a Bid Securing Declaration in lieu of Bid Security.

We unconditionally accept the condition of this Bid Securing Declaration. We understand that we shall stand automatically suspended from being eligible for bidding in any tender in IUAC for a period of two years from the date of opening of this bid if we breach our obligation under the tender conditions, if, we,

a) withdraw/amend/impair/derogate, in any respect, from our bid, within the bid validity; or

b) being notified within the bid validity of the acceptance of our bid by IUAC

(i) fail or refuse to sign the contract, or (ii) failed or refused to produce the original documents for scrutiny or the required Performance Security within the stipulated time under the conditions of the tender documents.

We know that this Bid Securing Declaration shall expire if the contract is not awarded to us, upon:

- 1) receipt by us of your notification
 - a) of cancellation of the entire tender process or rejection of all bids or
 - b) of the name of successful bidder or

- 1) Forty-five days after the expiration of the bid validity or nay extension to it.

Signed:

Name:

Dated on _____ day of _____

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

(Signature of the Bidder, with Official Seal)

Declaration By The Bidder For Code Of Integrity & Conflict Of Interest (Annexure - E)
(On the Letter Head of the Bidder)

No: _____

Date _____

To,
The Director IUAC
New Delhi

Sir,

With reference to your Tender No. _____ dated _____ I/We hereby declare that we shall abide by the Code of Integrity for Public Procurement as in your Tender document and have no conflict of interest.

It is certified that we are not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids / Tender.

The details of any previous transgressions of the code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity are as under:

- a
- b
- c

We undertake that we shall be liable for any punitive action in case of transgression/ contravention of this code.

Thanking you,

Yours sincerely,

Signature
(Name of the Authorized Signatory)

Bidder Seal

(Undertaking on Blacklisting on Bidder's Letterhead)

Annexure-F

I / We (bidder) hereby give an undertaking that:

1. I / We have not been blacklisted / on holiday list / debarred during last three years by any Govt. Department/Govt. Autonomous Body/Institution, etc;
2. I/We do not have any dispute with any of the Govt. Departments/ Govt. Autonomous Bodies/Institutions, etc.;
3. I/We have never been certified as 'Unsatisfactory Performer' for the said services provided to the Govt. Departments/ Govt. Autonomous Bodies/ Institutions;
4. I/We have not submitted any fake/forged certificates/ documents and later, if any such 'Certificates/Documents' found to be fake/ forged or contains willful wrong/incorrect information, suitable legal actions may be initiated against me/us/agency and the agencies / bidders shall be debarred from tendering with the Institute.
5. I/We shall not withdraw my/our bid after opening of Technical Bid and if done so, the IUAC and the agencies / bidders shall be debarred from tendering with the Institute.

Seal and Signatures of the
Authorized Person of the Agency

Name and designation of the
Authorized Person of the Agency

Place:

Date:

Certificate/ Undertaking on Site Visit (On Bidder's letter head)

Annexure - G

This certificate shall be furnished duly signed & stamped with **Techno-commercial Bid**.

This is to certify that we have visited the site where the Dismantle and SITC of Chilled Water Piping work shall be installed in Inter-University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi -110067 on and assessed the actual situation & nature of site. We have also assessed the amount of work involved at site for tendered work before submitting our offer. We will be able to complete the above work within stipulated time as per site conditions.

We further undertake that no extra cost will be claimed by us later-on for any difficulties/ modifications involved during the execution of tendered works. We understand that work is to be executed in an already operational/ functional institute.

**(Signature of the Bidder, with
Official Seal)**

Performance Statement (Annexure-H)

Statement of Supplies During Last Three Years and Outstanding Current Orders

(To be submitted as part of Technical bid on Bidder's Letter-head)

Tender Document No. ;
 Bidder's Name _____
 [Address and Contact Details]

Tender Title:

Bidder's Reference No. _____ Date.....

Note to bidders: Fill up this Form your past performance highlighting their qualification to supply relevant Goods. Statements and Documents to the Performance Statement may be mentioned/ attached here. The list below is indicative only. You may attach more documents as required to showcase your past performance. Add additional details not covered elsewhere in your bid in this regard.

Order issued by	Order No. & Date	Qty ordered	Quantity supplied	Price at which supplied	The total value of the order	Status as on date----

.....
 (Signature with date)

.....
 (Name and designation)
 Duly authorized to sign bid for and on behalf of

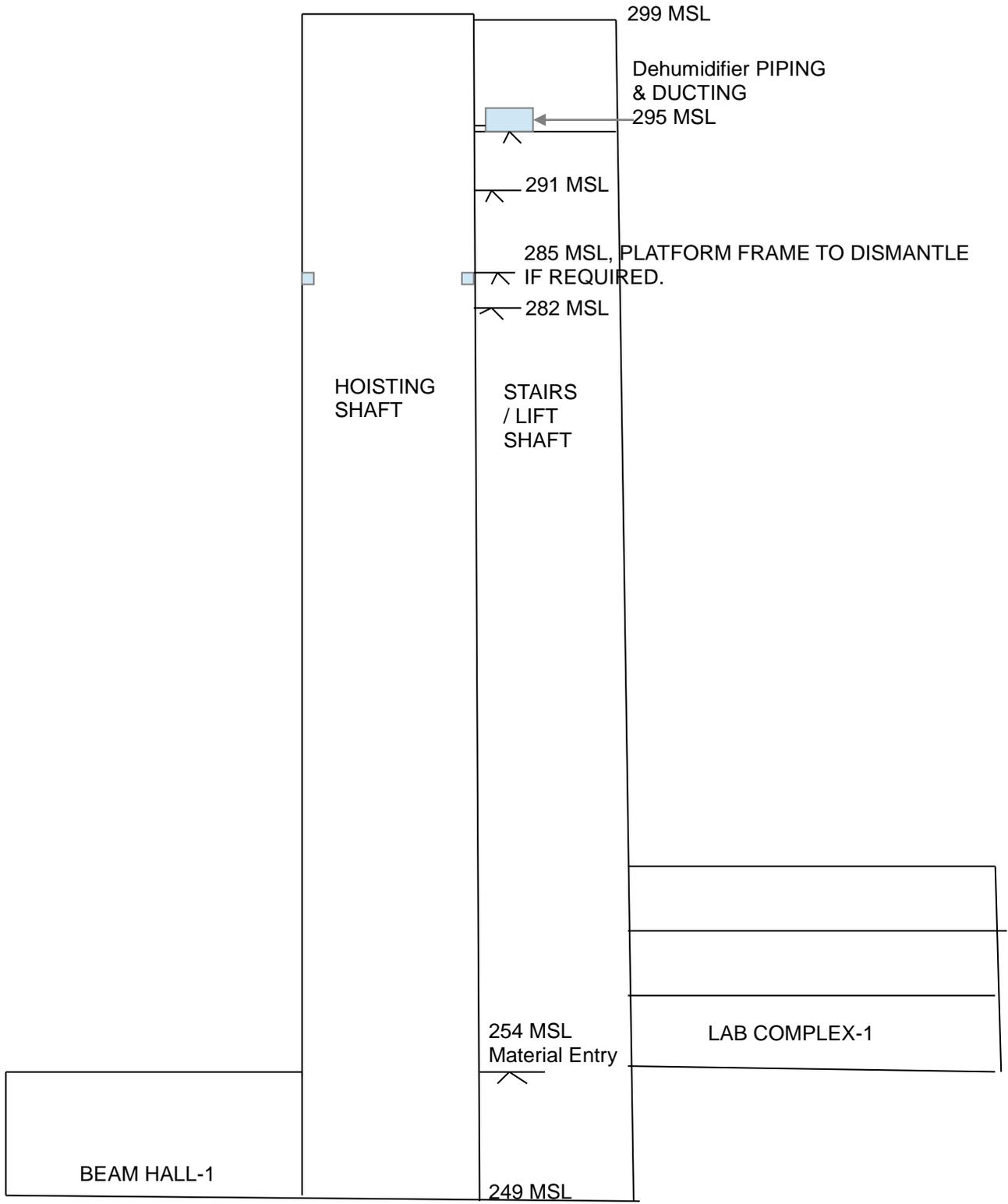
.....

 [name & address of bidder and seal of company]

CHECK-LIST FOR PRE-QUALIFICATION BID**(Annexure-I)****Dismantle and SITC of Chilled Water Piping work at IUAC, Aruna Asaf Ali Marg, New Delhi-110067**

#	Documents Provided
1.	Tender Acceptance Letter - Annexure - B
2.	Profile Of The Tenderer - Annexure - C
3	Bid Securing Declaration Form - Annexure - D
4	Declaration By The Bidder For Code Of Integrity & Conflict Of Interest - Annexure - E
5	Undertaking on Blacklisting on bidder's Letter head - Annexure-F
6	Certificate/ Undertaking - Annexure - G
7	Performance Statement - Annexure-H
8	Scope of work as per the details as given in Annexure - A
9	Proof of submission of EMD
10	Self-attested copy of the GSTIN & PAN card issued by the respective authorities.
11	Self-attested copy of MSME/NSIC Registration Certificate .
12	Annual turnover of last three financial years (2020-21, 2021-22 & 2022-23) duly certified by the Statutory Auditors. To support the claim provide a certificate of CA (No need to provide copies of balance sheet).
13	Copies of ITR filed for the last three financial years
14	Certificate - Bidder Not from/ from Country sharing Land border with India & Registration of Bidder with Competent Authority
15	Certificate – Bidder Not from/ from Country sharing Land border with India, Registration of Bidder with Competent Authority & not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority
16	Signed and stamped copy of NIT.
17	Other Documents, if any

Signature of the Bidder
(Name and Address of the Bidder)
Telephone No.



299 MSL

Dehumidifier PIPING
& DUCTING

295 MSL

291 MSL

285 MSL, PLATFORM FRAME TO DISMANTLE
IF REQUIRED.

282 MSL

HOISTING
SHAFT

STAIRS
/ LIFT
SHAFT

LAB COMPLEX-1

254 MSL
Material Entry

BEAM HALL-1

249 MSL

MSL-Mean Sea Level
SCALE-NONE

DEHUMIDIFIER PIPING LOCATION
DIAGRAM

Dehumidifier cum AHU connections
At 297 M SL

Insulation 50 mm thick XLPE pipe section,
250 microns, polythene sheet,
24 G Al Cladding

