



## **Indian Institute of Integrative Medicine**

(Formerly known as Regional Research Laboratory)

**Canal Road, Jammu-180001 (J&K) India-180001**

Tele phone:- 0191-2585007-11 Telefax :0191-2585032

**Web site: <http://www.iiim.res.in>**

**E-mail: [praphul.spo@iiim.res.in](mailto:praphul.spo@iiim.res.in)**

**TENDER NO :12(296)/2020-P Date 08.12.2020**

**TENDER DOCUMENT**

**FOR**

**Modular Clean Room**

## INVITATION FOR BIDS / NIT

1. Director, CSIR- Indian Institute of Integrative Medicine, Canal Road Jammu-180001, invites E-bids from manufacturers, their authorized distributors and Indian Agent of Foreign principals, if any, for purchase of items listed below. Bids are to be submitted electronically only on **NIC portal/ etenders.gov.in**

Sl..No.	Tender No.	Description of items	Quantity	Single/ Double bid	Bid Security (EMD) (in Indian Rupees)
1.	12(296)/2020-P	<b>Clean Room</b>  (Required Technical Specifications are mentioned at Chapter 4)	As per BOQ	Double Bid	Rs. <b>2,50,000.00</b>

2. Interested Bidders may obtain further information from the office of the Stores and Purchase Officer, Canal Road Jammu -180001

3. Each complete set of bidding document may be purchased by any interested bidder on submission of a written application to the above office and upon payment of a non-refundable and non-transferable fee of ₹500/- in the form of a Demand Draft in favour of The Director, CSIR- Indian Institute of Integrative Medicine, Canal Road Jammu-180001 payable at Jammu during office hours on all working days up to **15.12.2020** either in person or by post. Alternatively, the bidding documents can be downloaded directly from our website <http://www.iiim.res.in> free of cost. The bids must be uploaded on or before **28.12.2020(Date)** up to 03:00PM hours (IST) and shall be opened on **29.12.2020 (Date) at 03:00PM** hours. (IST)

4. ~~A Pre-bid Conference will be held on \_\_\_\_\_ (Date) at \_\_\_\_\_ hours (IST) in CSIR- Indian Institute of Integrative Medicine, Canal Road Jammu-180001.~~ All prospective bidders are requested to kindly submit their queries, if any to the address indicated above so as to reach the office Stores and Purchase Officer, CSIR- Indian Institute of Integrative Medicine, Canal Road Jammu-180001 latest by **28.12.2020**.

05. Bid security in the form of Demand draft or Bank Guarantee only, as specified above and must be delivered to the above office at the date and time indicated above. Online Bids will be opened in the presence of Bidders' authorized representatives who choose to attend on the specified date and time. In the event of the date specified for bid receipt and opening being declared as a closed holiday for purchaser's office, the due date for submission of bids and opening of bids will be the following working day at the appointed time. Bids other than electronic mode will not be accepted.

6. As per Govt. of India procurement policies,

a. The purchaser intends to give purchase preference to local suppliers\* in case the cost of procurement is up to Rs. 50.00 lakhs.

b. The eligibility of the supplier is restricted to

1. Indian Suppliers

or

2. **there is no restriction on the eligibility of the suppliers.**

✓

c. The procuring entity intends to give purchase preference to products /goods manufactured by micro, small and medium enterprises. \*"Local supplier" means a supplier or service provider whose product or service offered for procurement meets the minimum local content of 50% as prescribed in DIPP Order No.P-45021/2/2017-PP (BE-II) dated 28th May, 2018 or by the competent Ministries/Departments in pursuance of this order 'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

7. The Director, CSIR- Indian Institute of Integrative Medicine, Canal Road Jammu-180001 reserves the right to accept or reject any bids or accept all tenders either in part or in full or to split the order, or to annul the bidding process without assigning any reason.

sd/-  
Stores & Purchase Officer

## INDEX

---

Chapter	Content
1	Instructions to Bidders
2	Conditions of Contract
3	Schedule of Requirement
4	Specifications and Allied Technical Details
5	Price Schedule Forms
6	Qualification Requirements
7	Contract Form
8	Other Forms

## CRITICAL DATE SHEET

Sl. No.	Stage	Date & Time
1.	Publish Date & Time	08.12.2020
2.	Sale/document Download Start Date & Time	08.12.2020
3.	Last Date & time for receipt of queries	15.12.2020
4.	Pre-bid Conference, if any	--- AM/PM
5.	Bid Submission Start Date & time	08.12.2020
6.	Bid Submission End Date & Time	28.12.2020 03:00PM
7.	Bid Opening Date & Time	29.12.2020 03:00PM

**TENTATIVE TIME SCHEDULE OF PROCUREMENT PLANNING**

<b>Sl.No</b>	<b>Stage</b>	<b>Tentative Time Frame</b>
1.	Date of Bid Opening	29.12.2020 (03:00PM)
2.	Date of Completion of Technical Bid Evaluation	04.01.2021
3.	Date of communication of Rejection of Bids	11.01.2021
4.	Date of Receipt of context, if any, from Bidders	18.01.2021
5.	Opening of Financial Bid	25.01.2021
6.	Notification of Award	31.01.2021

## CHAPTER - 1

### INSTRUCTIONS TO BIDDERS

---

#### Table of Contents

---

Sl. No.	Contents
<b>A.</b>	<b>Introduction</b>
1.1	Eligible Bidders
1.2	Cost of Bidding
1.3	Code of Integrity for Public Procurement
<b>B.</b>	<b>The Bidding Documents</b>
1.4	Cost of tender Documents
1.5	Content of tender Documents
1.6	Clarification of tender documents
1.7	Amendment of tender Documents
<b>C.</b>	<b>Preparation of Bids</b>
1.8	Language of Bid
1.9	Purchase Preference Policies
1.10	Documents Comprising the Bid
1.11	Bid form and price schedule
1.12	Bid Prices
1.13	Bid Currencies
1.14	Documents Establishing Bidder's Eligibility and Qualifications
1.15	Documents Establishing Goods' Eligibility And Conformity to Bidding Documents
1.16	Bid Security
1.17	Period of Validity of Bids
1.18	Format and Signing of Bid
<b>D.</b>	<b>Submission and Sealing Bids</b>
1.19	Submission, Sealing and Marking of Bids

1.20	Deadline for Submission of Bids
1.21	Late Bids
1.22	Withdrawal, substitution and Modification of Bids
<b>E.</b>	<b>Opening and Evaluation of Bids</b>
1.23	Opening of Bids by the Purchaser
1.24	Confidentiality
1.25	Clarification of Bids
1.26	Preliminary Examination
1.27	Responsiveness of Bids
1.28	Bidders right to question rejection
1.29	Non-Conformity, Error and Omission
1.30	Examination of Terms & Conditions, Technical Evaluation
1.31	Conversion to Single Currency
1.32	Evaluation and Comparison of bids
1.33	Contacting the Purchaser
1.34	Post qualification
<b>F.</b>	<b>Award of Contract</b>
1.35	Negotiations
1.36	Award Criteria
1.37	Option Clause
1.38	Purchaser's right to vary Quantities at Time of Award
1.39	Purchaser's right to accept any Bid and to reject any or all Bids
1.40	Notification of Award
1.41	Signing of Contract
1.42	Order Acceptance
1.43	Performance Security
1.44	Pre-bid Conference
1.45	Integrity Pact

## **A**      **Introduction**

### **1.1.      Eligible Bidders**

- 1.1.1      This Invitation for Bids is open to all suppliers subject to para 06 of the invitation for bids/NIT. As per “MAKE IN INDIA” policy of GOI Only Class-I local supplier will be eligible to participate in tender if there is sufficient local capacity an local competition. Ministry of Finance, Department of Expenditure, Public Procurement Division Order No. F.No. 6/18/2019-PPD Dated 23<sup>rd</sup> July on “Restrictions under Rule 144(xi) of the General Financial Rules(GFRs) – 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) of works( including turnkey projects) only if the bidder is registered with the Competent Authority specified in Annex I of the above said order.
- 1.1.2      A supplier or bidder shall be considered to be from a country if (i) the entity is incorporated in that country, or ii) a majority of its shareholding or effective control of the entity is exercised from that country; or (iii) more that 50% of the value of the item being supplied has been added in that country. Indian suppliers shall mean those entities which meet any of these tests with respect to India.
- 1.1.3      MSEs would be treated as owned by Scheduled Caste/Schedule Tribe enterprises as under:
- (a) In case of proprietary MSE, proprietor(s) shall be SC /ST.
  - (b) In case of partnership MSE, the SC/ST partners shall be holding at least 51% (fifty one percent) shares in the unit.
  - (c) In case of Private Limited Companies, at least 51% (fifty one percent) share shall be held by SC/ST promoters.
- 1.1.4      MSEs owned by women shall also be determined as per the above analogy/criteria.
- 1.1.5      Bidders should not be 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.
- 1.1.6      Bids from Joint Ventures, Consortium or Associations so long as they are formed and registered prior to the bid submission date.
- 1.1.7      The bidders who have been temporarily suspended or removed from the list of registered suppliers by the purchaser or banned from Ministry/country wide procurement shall be ineligible for participation in the bidding process.

### **1.2      Cost of Bidding**

- 1.2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and “the Purchaser”, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

### **1.3      Code of Integrity**

- 1.3.1      The bidders/suppliers should sign a declaration about abiding by the Code of Integrity for Public Procurement in bid documents. In case of any transgression of this code, the bidder is not only liable to be removed from the list of registered suppliers, but it would be liable for other punitive actions such as cancellation of contracts, banning and blacklisting or action in Competition Commission of India, and so on.
- 1.3.2      **Code of integrity for Public Procurement:** The Purchaser as well as bidders, suppliers, contractors and consultants should observe the highest standard of ethics and should not indulge in the following prohibited

practices, either directly or indirectly, at any stage during the procurement process or during execution of resultant contracts:

- i) **“corrupt practice”**: making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process or contract execution;
- ii) **“Fraudulent practice”**: any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract;
- iii) **“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;
- iv) **“coercive practice”**: harming or threatening to harm, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- v) **“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; and
- vi) **“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;

### 1.3.3 Obligations for Proactive disclosures

- i) The Purchaser as well as bidders, suppliers, contractors and consultants, are obliged under Code of Integrity for Public Procurement to sue-moto proactively declare any conflicts of interest (coming under the definition mentioned above – pre-existing or as and as soon as these arise at any stage) in any procurement process or execution of contract. Failure to do so would amount to violation of this code of integrity; and
- ii) The bidder must declare, whether asked or not in a bid document, any previous transgressions of such a code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity. Failure to do so would amount to violation of this code of integrity;
- iii) To encourage voluntary disclosures, such declarations would not mean automatic disqualification for the bidder making such declarations. The declared conflict of interest would be evaluated and mitigation steps, if possible, taken by the purchaser.

### 1.3.4 Punitive Provisions



Without prejudice to and in addition to the rights of the Purchaser to other penal provisions as per the bid documents or contract, if the Purchaser comes to a conclusion that a (prospective) bidder/supplier, directly or through an agent, has violated this code of integrity in completing for the contract or in executing a contract, the purchaser may take appropriate measures including one or more of the following:

- i) **If his bids are under consideration in any procurement:**
  - a) Forfeiture or encashment of bid security;
  - b) Calling off of any pre-contract negotiations; and
  - c) Rejection and exclusion of the bidder from the procurement process.
  
- ii) **If a contract has already been awarded**
  - a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the purchaser;
  - b) Forfeiture or encashment of any other security or bond relating to the procurement;
  - c) Recovery of payments including advance payments, if any, made by the purchaser along with interest thereon at the prevailing rate.
  
- iii) **Provisions in addition to above:**
  - a) Removal from the list of registered suppliers and banning/debarment of the bidder from participation in future procurements of the purchaser for a period not less than one year;
  - b) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India;
  - c) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.

## **B. The Bidding Documents**

### **1.4 Cost of Tender Documents**

- 1.4.1 Interested eligible bidders may purchase the bidding documents on payment of the cost of bidding documents as indicated in the invitation forbids/NIT or alternatively, the bidding documents can be downloaded from our Website as indicated in the Invitation for Bids/NIT free of cost.

### **1.5 Content of Tender Documents**

- 1.5.1 The goods required, bidding procedures and contract terms are prescribed in the bidding documents which should be read in conjunction. The bidding documents, apart from the invitation for bids and Critical Date Sheet have been divided into **8** Chapters as under:

- Chapter 1: Instructions to Bidder (ITB)
- Chapter 2: General Conditions of Contract (GCC) and Special Condition of Contract (SCC)
- Chapter 3: Schedule of Requirements
- Chapter 4: Specifications and Allied Technical Details
- Chapter 5: Price Schedule Forms
- Chapter 6: Qualification requirements
- Chapter 7: Contract Form
- Chapter 8: Other Standard Forms comprising:
  - (1) Bidder Information Form
  - (2) Manufacturer's Authorization Form (MAF);
  - (3) Bid Security Form
  - (4) Bid Securing declaration

- (5) Performance Statement form
- (6) Deviation Statement Form;
- (7) Service Support details;
- (8) Bid form
- (9) Performance Security Form;
- (10) Acceptance Certificate Form
- (11) Integrity pact
- (12) Format of letter of authority for participating in bid opening
- (13) Format for declaration by the bidder for code of integrity and Conflict of interest.
- (14) Certificate for sharing land of Border. **(Annexure 5P)**
- (15) Vendor Class. **(Annexure 5Q)**

1.5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

#### **1.6 Clarification of tender documents**

1.6.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the Special Conditions of Contract (SCC), latest by the date specified in the critical date sheet. No request for clarification or query shall normally be entertained after the deadline/pre-bid conference if any. Should the Purchaser deem it necessary to amend the Tender Documents as a result of a clarification, it shall do so following the procedure under Clause relating to amendment of Tender Documents and Clause relating to Deadline for Submission of Bids.

The queries, clarifications and amendments issued would also be hosted on the website of the Purchaser for the benefit of the other prospective bidders and also shall be sent to all bidders who have purchased the tender documents.

#### **1.7 Amendment of Tender Documents**

- 1.7.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the tender documents by amendment. The same would also be hosted on the website of the Purchaser and all prospective bidders are expected to surf the website before submitting their bids to take cognizance of the amendments. However, the copies of the amendments would be sent by registered post/speed post/courier/e-mail to all the bidders who have purchased the tender documents.
- 1.7.2 In order to allow prospective bidders' reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids and host the changes on the website of the Purchaser.

### **C. PREPARATION OF BIDS**

#### **1.8. Language of Bid**

- 1.8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser shall be written in English language only.
- 1.8.2 The Supplier shall bear all costs of translation, if any, to the English language and bear all risks of the accuracy of such translation, for documents provided by the Supplier.

## **1.9 Purchase Preference Policies**

- 1.9.1 The purchaser intends to give product reservation/purchase preference/price preference in line with current Govt. of India procurement policies to help inclusive national economic growth by providing long term support to Small and Medium enterprises (SMEs) and disadvantaged sections of the society and to address environmental concerns along with preferential market access in govt. procurements.
- 1.9.2 For the above purpose, local supplier means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed in DIPP Order No.P-45021/2/2017-PP (BE-II) dated 28th May, 2018 or by the competent Ministries/Departments in pursuance of this order and local content means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

### **1.10.1 Documents comprising the bid**

The bid prepared by the Bidder shall include documents as under:

#### **A. Technical bid**

- (a) Bidder Information Form;
- (b) Declaration abiding by the Code of Integrity and no conflict of interest for public procurement;
- (c) Bid security as specified in the Invitation to Bids;
- (d) Service support details form;
- (e) Deviation Statement Form;
- (f) Performance Statement Form;
- (g) Manufacturer's Authorization Form along with a certified copy of the Agency Agreement between the bidders and the Indian Agent;
- (h) Documentary evidence establishing that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
- (i) Integrity Pact.
- (j) Documents establishing goods eligibility and conformity to bidding documents; indicating the Indian Customs Tariff Number (ICT & HSN No.) .
- (k) Schedule of requirements.
- (l) Self certification that the item offered meets the minimum local content of 50% giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable.
- (m) In cases of procurement for a value in excess of ₹ 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India policy, if applicable.
- (n) Documentary evidence about the status of the bidder i.e. whether MSE or not, owned by SC/ST or not and whether the MSE is owned by a women entrepreneur or not.
- (o) Certificate for sharing land of Border. **(Annexure 5P)**
- (p) Vendor Class. **(Annexure 5Q)**

#### **B Price bid**

- (i) Bid form;
- (ii) Applicable Price Schedule Form;

### **1.11. Bid form and price schedule**

- 1.11.1 The bidder shall complete the Bid Form and the appropriate price schedule form furnished in the bidding documents. These forms must be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. The Bid Form and the appropriate Price Schedule form shall be submitted in accordance with Clause 1.18.3 of the bidding documents.

**1.12. Bid Prices**

- 1.12.1 The Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the goods it proposes to supply under the contract.

- 1.12.2 Prices indicated on the price-schedule form shall be entered separately in the following manner:

**(a) For Goods manufactured within India**

- (i) The price of the goods quoted Ex-works including taxes already paid.
- (ii) GST and other taxes, if any which will be payable on the goods if the contract is awarded.
- (iii) The charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination as specified in the price schedule form.
- (iii) Wherever applicable, the cost towards the installation, commissioning, spares, extended warranty, AMC/CMC, site preparation and training including any incidental services, if any.

**RATES SHOULD BE QUOTED FOR IIIM JAMMU BASIS.**

**(b) For Goods manufactured abroad**

- (i) The price of the goods, quoted on FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the price schedule form.
- (ii) The charges for insurance and transportation of the goods to the port / place of destination both by Air/Sea.
- (iii) The agency commission charges, if any.
- (iv) Wherever applicable, the cost towards the installation, commissioning, spares, extended warranty, AMC/CMC, site preparation and training including any incidental services, if any.

The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.

- 1.12.4 **Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offer shall be rejected as incomplete.**

- 1.12.5 The price quoted shall remain fixed during the contract period and shall not vary on any account

- 1.12.6 All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.

- 1.12.7 The Purchaser is registered with Dept. of Scientific & Industrial Research, Govt. of India and concessional customs duty and GST & IGST are leviable vide notification No. 54/2002-Customs on all imports covered under Notification No.51/96-Customs dated 23.07.1996, Notification No.47/2017-

Integrated Tax (Rate) and Notification No. 45/2017-Central Tax (Rate) both dated 14th November, 2017

- 1.12.8 Please state specifically in your offer whether the duties and taxes are extra over the prices quoted, failing which it will be presumed that the prices are inclusive of taxes and duties and no claim would be entertained for statutory variations at a later date.
- 1.12.9 Stipulations like "GST is presently not applicable but the same will be charged if it becomes leviable later on" is not acceptable unless in such cases it is clearly stated that GST will not be charged if the same becomes applicable later on due to increase in turn over etc. If a bidder fails to comply with this requirement, his quoted price shall be loaded with the quantum of duty which is normally applicable on the item in question for the purpose of comparison with the prices of other tenderers.

**Note: All payments due under the contract shall be paid after deduction of statutory levies at source (like TDS etc.), wherever applicable.**

**1.13. Bid Currencies**

- 1.13.1 Prices shall be quoted in Indian Rupees for offers received for supply within India and in freely convertible foreign currency in case of offers received for supply from foreign countries i.e. domestic tenderers are to quote and accept their payment in Indian currency; Indian agents of foreign suppliers are to receive their agency commission in Indian currency; cost of imported goods & services rendered in India, which are directly imported against the contract, may be quoted in foreign currency (currencies).

**1.14. Documents Establishing Bidder's Eligibility and qualifications**

- 1.14.1 The bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification to perform the contract if its bid is accepted.
- 1.14.2 The documentary evidence of the bidder's qualification to perform the contract if the bid is accepted shall establish to the purchaser's satisfaction that;
- (a) The bidder meets the qualification criteria listed in bidding documents if any.
  - (b) Bidder who doesn't manufacture the goods it offers to supply shall submit Manufacturers' Authorization Form (MAF) using the form specified in the bidding document to demonstrate that it has been duly authorized by the manufacturer of the goods to quote and/or supply the goods.
  - (c) In case a bidder not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post-warranty period.

**1.14.3 Conditional tenders shall not be accepted.**

**1.15 Documents Establishing Goods' Eligibility and Conformity to Bidding Documents**

- 1.15.1 To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.
- 1.15.2 To establish the conformity of the goods and services to the specifications and schedule of requirements of the bidding document, the documentary evidence of conformity of the goods and

services to the bidding documents may be in the form of literature, drawings and data, and shall consist of:

A detailed description of the essential technical and performance characteristics of the goods;

- (a) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods during the warranty period following commencement of the use of the goods by the Purchaser in the Priced-bid; and
- (c) An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

1.15.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

1.15.4 **Alternate offers/makes/models would not be considered.**

#### **1.16. Bid Security**

1.16.1 The Bidder shall furnish, as part of its bid, a bid security (BS) for an amount as specified in the Invitation for Bids. In the case of foreign bidders, the BS shall be submitted either by the principal or by the Indian agent and in the case of indigenous bidders; the BS shall be submitted by the manufacturer or their specifically authorized dealer/bidder.

1.16.2 The bid security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture.

1.16.3 The bid security shall be in Indian Rupees for offers received for supply within India and denominated in the currency of the bid or in any freely convertible foreign exchange in the case of offers received for supplies from foreign countries in equivalent Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:

- (a) A bank guarantee issued/confirmed by a Scheduled Commercial Bank in India in the form provided in the bidding documents and valid for 45 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Scheduled commercial bank in India; or
- (b) Fixed Deposit receipt pledged in favour of the Lab. /Institute.
- (c) A demand draft in favour of the purchaser issued by any Scheduled commercial bank in India.
- (d) Bid Securing Declaration

1.16.4 The bid security shall be payable promptly upon written demand by the purchaser in case the conditions listed in the ITB clause 1.16.9 are invoked.

1.16.5 The bid security should be submitted in its original form. Copies shall not be accepted.

1.16.6 The bid security of unsuccessful bidder will be discharged /returned as promptly as possible positively within a period of 30 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.

1.16.7 The successful Bidder's bid security will be discharged upon the Bidder furnishing the performance security, without any interest.

1.16.8 Bidders that are currently registered with the purchaser or registered as MSEs will continue to remain registered during the tender validity period also and are exempted from payment of EMD. In case the tenderer falls in these categories, the bidder should furnish a certified copy of its valid registration

details. Except for MSEs, this exemption is valid for the trade group and monetary value of registration only. The MSEs are provided tender document free of cost and are exempted from the payment of Bid Security provided the goods are produced and the services are rendered by them and not for any trading activities undertaken by them. Further firms who are having Udyog Aadhar Memorandum are entitled to all benefits available for MSEs under the Public Procurement Policies for MSEs and can get registered with any of the following agencies:

- a) District Industries Centre
- b) Khadi and Village Industries Commission
- c) Khadi and Village Industries Board
- d) Coir Board
- e) National Small Industries Corporation
- f) Directorate of Handicraft and handloom and
- g) Any other body specified by the Ministry of MSME

1.16.9 Where any aggregator has been appointed by the Ministry of MSME, themselves quote on behalf of some MSE units, such offers will be considered as offer from MSE units and all such facilities would be extended to these aggregators also.

1.16.10 The bid security may be forfeited:

- (a) If a Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- (b) In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 14 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.

**1.16.11 Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.**

#### **1.17. Period of Validity of Bids**

1.17.1 Bids shall remain valid for minimum of 90 days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

1.17.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (by post, fax or e-mail). The bid security provided shall also be suitably extended failing which the bid would be summarily ignored. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

1.17.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

#### **1.18. Format and Signing of Bid**

1.18.1 The bids may be submitted in single envelop or in two parts as specified in the Invitation for Bids.

1.18.2 In case the bids are invited on single envelop basis, then the Bidder shall prepare two copies of the bid, clearly marking each "Original Bid" and "Copy Bid", as appropriate. In the event of any discrepancy between them, the original shall govern.

- 1.18.3 In case the bids are invited on two-bid system, the Bidder shall submit the bids in two separate parts. One part shall contain Technical bid comprising all documents listed under clause relating to Documents Comprising the Bid excepting bid form and price schedules. The other part shall contain the priced-bid comprising bid form and price schedules. The Bidder shall prepare two copies of the bid, clearly marking each "Original Bid" and "Copy Bid", as appropriate.
- 1.18.4 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid detailing his/her name and contact details.
- 1.18.5 Any interlineations, erasures or overwriting shall be valid only if they are initialled by the persons or persons signing the bid.

#### **D. Submission and sealing of Bids**

##### **1.19. Submission, Sealing and Marking of Bids**

- 1.19.1 The bids may be submitted electronically only **(Bids received by Post/by hand/FAX/E-mail would not be considered for evaluation.)**
- 1.19.2 In the case of bids invited on single envelop basis, the Bidders shall seal the original and each copy of the bid in separate inner envelopes, duly marking the envelopes as "original" and "copy". The envelopes shall then be sealed in an outer envelope.
- 1.19.3 Bid may be submitted in two parts a) Technical & B) Financial
- 1.19.4 If the outer envelope is not sealed and marked as required above, the Purchaser will assume no responsibility for the bid's misplacement or premature opening. In such cases, bids received in open condition within the due date and time will be accepted at the risk of the bidder if the same is presented to the Controller of Stores & Purchase before expiry of the due date and time of opening of the bids.
- 1.19.6 Firms submitting bids in a single part against the requirement of two-bid system would be considered for further evaluation at the risk & responsibility of the bidder.

##### **1.20. Deadline for Submission of Bids**

- 1.20.1 Bids must be received by the Purchaser at the address specified at Clause 1.19.4 (a) not later than the time and date specified in invitation for bids. In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bids will be received up to the appointed time on the next working day.
- 1.20.2 The Purchaser may, at its discretion, extend the deadline for submission of bids by amending the bid documents in accordance with Clause relating to Amendment of Bidding Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

##### **1.21. Late Bids**

- 1.21.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser will be rejected.



**1.22. Withdrawal, substitution and Modification of Bids.**

- 1.22.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted in accordance with ITB Clause 1.19 duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB Sub-Clause 1.18.4 (except that no copies of the withdrawal notice are required). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:
- (a) Submitted in accordance with ITB Clauses 1.18 and 1.19 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION"; and
  - (b) Received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB Clause 1.20.
- 1.22.2 Bids requested to be withdrawn in accordance with ITB Sub-Clause 1.22.1 shall be returned unopened to the Bidders. No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form or any extension thereof.

**E. Opening and Evaluation of Bids**

**1.23 Opening of Bids by the Purchaser**

- 1.23.1 The Purchaser will open all bids one at a time in the presence of bidders' authorized representatives who choose to attend, as per the schedule given in invitation for bids. The Bidders' representatives who are present shall sign the quotation opening sheet evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day. In two-part bidding, the financial bid shall be opened only after technical evaluation.
- 1.23.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening. Only envelopes that are opened and read out at Bid opening shall be considered further.
- 1.23.3 The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Purchaser, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bid(s). The contents of the bid forms and price schedules would however be announced only at the time of opening of Priced-bids in the case of two-bid system.
- 1.23.4 Bids that are received late shall not be considered further for evaluation, irrespective of the circumstances.

- 1.23.5 **Bidders interested in participating in the bid opening process, should depute their representatives along with an authority letter to be submitted to the purchaser at the time of bid opening as per form Annexed at Chapter-9.**

**1.24. Confidentiality**

- 1.24.1 Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.
- 1.24.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.

**1.25. Clarification of Bids**

- 1.25.1 To assist in the examination, evaluation, comparison and post qualification of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest bidder, at the discretion of the purchaser. Any clarification submitted by a bidder in respect to its bid which is not in response to a request by the purchaser shall not be considered.

**1.26. Preliminary Examination**

- 1.26.1 The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in ITB Clause 1.10 have been provided, and to determine the completeness of each document submitted.
- 1.26.2 The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.

(a) Bid Form and Price Schedule, in accordance with ITB Clause 1.10;

(b) All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, are to be treated as unresponsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:

- (i) The Bid is unsigned.
- (ii) The Bidder is not eligible.
- (iii) The Bid validity is shorter than the required period.
- (iv) The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
- (v) Bidder has not agreed to give the required performance security or has not furnished the bid security.
- (vi) The goods quoted are sub-standard, not meeting the required specification, etc.
- (vii) Against the schedule of Requirement (incorporated in the tender enquiry), the bidder has not quoted for the entire requirement as specified in that schedule.
- (viii) The bidder has not agreed to some essential condition(s) incorporated in the tender enquiry.

**1.27 Bidder's right to question rejection.**

- 1.27.1 A Bidder shall have the right to be heard in case he feels that a proper procurement process is not being followed and/or his tender has been rejected wrongly. Only a directly affected bidder can represent in this regard as under:
- i) Only a bidder who has participated in the concerned procurement process i.e. pre-qualification, bidder registration or bidding, as the case may be, can make such representation;
  - ii) In case pre-qualification bid has been evaluated before the bidding of Technical bids, an application for review in relation to the technical bid may be filed only by a bidder who has qualified in pre-qualification bid;
  - iii) In case technical bid has been evaluated before the opening of the financial bid, an application for review in relation to the financial bid may be filed only by a bidder whose technical bid is found to be acceptable.
  - iv) Following decisions of the purchaser in accordance with the provision of internal guidelines shall not be subject to review:
    - a) Determination of the need for procurement;
    - b) Selection of the mode of procurement or bidding system;
    - c) Choice of selection procedure;
    - d) Provisions limiting participation of bidders in the procurement process;
    - e) The decision to enter into negotiations with the L1 bidder;
    - f) Cancellation of the procurement process except where it is intended to subsequently re-tender the same requirements;
    - g) Issues related to ambiguity in contract terms may not be taken up after a contract has been signed, all such issues should be highlighted before consummation of the contract by the vendor/contractor; and
    - h) Complaints against specifications except under the premise that they are either vague or too specific so as to limit competition may be permissible.
- 1.27.2 In case a Bidder feels aggrieved by the decision of the purchaser, he may then send his representation in writing to the Purchaser's address as indicated in special conditions of contract (SCC) within 05 working days from the date of communication of the purchaser intimating the rejection for reconsideration of the decision by the purchaser.

## **1.28 Responsiveness of Bids**

- 1.28.1 Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:
- (a) Affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
  - (b) Limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Contract; or
  - (c) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 1.28.2 The purchasers' determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 1.28.3 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission.

- 1.28.4 If a bidder quotes Nil Charges/consideration, the bid shall be treated as unresponsive and will not be considered.

### **1.29 Non-Conformity, Error and Omission**

- 1.29.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonconformities or omissions in the Bid that do not constitute a material deviation.
- 1.29.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 1.29.3 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:
- (b) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
  - (c) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
  - (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 1.29.4 Provided that a bid is substantially responsive, the purchaser may request that a bidder may confirm the correctness of arithmetic errors as done by the purchaser within a target date. In case, no reply is received then the bid submitted shall be ignored and its Bid Security may be forfeited.

### **1.30 Examination of Terms & Conditions, Technical Evaluation**

- 1.30.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.
- 1.30.2 The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with ITB Clause 1.15, to confirm that all requirements specified in Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.
- 1.30.3 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 1.28, it shall reject the Bid.

### **1.31 Conversion to Single Currency**

- 1.31.1 To facilitate evaluation and comparison, the Purchaser will convert all quoted prices expressed in various currencies to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers on the date of bid opening (techno-commercial bid in the case of two-part bidding) For this purpose, exchange rate notified in [www.xe.com](http://www.xe.com) or [www.rbi.org](http://www.rbi.org) or any other website could also be used by the purchaser.

### **1.32 Evaluation and comparison of bids**

- 1.32.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.
- 1.32.2 To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined below. No other criteria or methodology shall be permitted.
- 1.32.3 Purchase preference shall be given to all local suppliers in all procurements undertaken by the purchaser in the following manner:
- (a)** Where the purchaser has restricted the eligibility of suppliers to Indian suppliers only, as per para 06 of the invitation to bid/NIT. This is applicable only for those items for which the Nodal Ministry has communicated that there is sufficient local capacity and local competition for the cost of procurement up to Rs. 50.00 lakhs.
- (b)** If the tendered items are not listed by the Nodal Ministry indicating the local capacity and local competition, the following procedure of evaluation shall be followed, irrespective of value:
- (i) Among all qualified bids, the lowest bid will be termed as L1. If L1 is from a local supplier, the contract for full quantity will be awarded to L1.
- (ii) If L1 bid is not from a local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the local suppliers, will be invited to match the L1 price for the remaining 50% quantity, subject to the local supplier's quoted price which should fall within the margin of purchase preference of 20%. The contract for that quantity shall be awarded to such local supplier, who matches the L1 price. In case such lowest eligible local supplier fails to match the L1 price or accepts less than the offered quantity, the next higher local supplier within the margin of purchase preference shall be invited to match the L1 price for the remaining quantity and so on. The contract shall be awarded accordingly. In case some quantity is still left uncovered on the part of local suppliers, the balance quantity may also be ordered to the L1 bidder.
- (c)** If the tendered item is not divisible, the following procedure of evaluation shall be followed:
- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is from a local supplier, the contract will be awarded to L1.
- ii. If L1 is not from a local supplier, the lowest bidder among the local suppliers will be invited to match the L1 price, subject to local supplier's quoted price falling within the margin of purchase preference of 20%. Accordingly, the contract shall be awarded to the local supplier matching the L1 price.
- iii. In case such lowest eligible local supplier fails to match the L1 price, the local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L1 price. This may be repeated until all the local suppliers are given an opportunity to match the L1 price. The contract shall be awarded accordingly. In case none of the local suppliers within the margin of purchase preference match the L1 price, the contract may be awarded to the L1 bidder.
- 1.32.4 Further, In tender, where the items are divisible, the participating Micro and Small Enterprises (MSE) quoting price within price band of L1+15 (fifteen) per cent shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply up to 25 (twenty five) per cent of total tendered value. The 25 (twenty five) per cent quantity is to be distributed proportionately among these bidders, in case there are more than one MSMEs within such price band.
- 1.32.5 Within this 25% (Twenty five Percent) quantity, a purchase preference of 25 (twenty five) per cent out of 25 (twenty five) per cent is reserved for MSEs owned by Scheduled Caste (SC)/Scheduled Tribe

(ST) entrepreneurs (if they participate in the tender process and match the L1 price). Further, out of the total annual procurement from the MSEs, (3%) three percent from within the 25% target shall be earmarked for procurement from MSEs owned by women. Provided that, in the event of failure of such SC/ST MSE to participate in tender process or meet tender requirements and L1 price, four per cent sub-target shall be met from other MSE.

- 1.32.6 In case the items are not divisible, then the MSE quoting price within price band L1 + 15% may be awarded for full/complete supply of total tendered quantity to MSE, considering the spirit of the policy for enhancing the Government procurement from MSEs.
- 1.32.7 The bids shall be evaluated on the basis of final landing cost which shall be arrived as under:

**(FOR CSIR IIIM, JAMMU SITE)**

**For goods manufactured in India**

- (i) The price of the goods quoted ex-works including all taxes already paid.
- (ii) GST and other taxes, if any which will be payable on the goods if the contract is awarded.
- (iii) Charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination.
- (iv) Wherever applicable, the cost towards the installation, commissioning, spares, extended warranty, AMC/CMC, site preparation and training including any incidental services, if any.

**For goods manufactured abroad**

- (i) The price of the goods, quoted on FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the bidding document.
  - (ii) The charges for insurance and transportation of the goods to the port/place of destination.
  - (iii) The agency commission etc., if any.
  - (iv) Wherever applicable, the cost towards the installation, commissioning, spares, extended warranty, AMC/CMC, site preparation and training including any incidental services, if any.
- 1.32.8 The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF/CIP basis respectively. However, the CIF/CIP prices quoted by any foreign bidder shall be loaded further as under:
- (a) Towards customs duty and other statutory levies—as per applicable rates.
  - (b) Towards custom clearance, inland transportation etc. - 2% of the CIF/CIP value.

The bidder should give a clear cut breakup of EXW, FOB/FCA, CIF/CIP prices to facilitate proper comparison with the purchaser reserving the right to order on either basis, failing which the bid would be summarily ignored.

**Note: Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offers shall be rejected as incomplete.**

- 1.32.9 Orders for imported stores need not necessarily be on FOB/FCA basis rather it can be on the basis of any of the incoterm specified in ICC Incoterms 2010 as may be amended from time to time by the ICC or any other designated authority and favorable to the purchaser.
- 1.32.10 Wherever the price quoted on FOB/FCA and CIF/CIP basis are the same, the Contract would be made on CIF / CIP basis only.
- 1.32.11 The GCC and the SCC shall specify the mode of transport i.e., whether by air/ocean/road/rail.

- 1.32.12 There is no provision to purchase optional items. The specifications embodied in the tender documents would be the basis of evaluating the responsiveness of bids received.
- 1.32.13 The Purchaser shall compare all substantially responsive bids to determine the lowest valued bid, in accordance with ITB Clause 1.32.

**1.33 Contacting the Purchaser**

- 1.33.1 Subject to ITB Clause 1.25, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- 1.33.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

**1.34 Post qualification**

- 1.34.1 In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 1.14.
- 1.34.2 The determination will take into account the eligibility criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.34.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

**F. AWARD OF CONTRACT**

**1.35 Negotiations**

- 1.35.1 Normally, there shall not be any negotiation. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the lowest evaluated responsive bidder. Counter offers tantamount to negotiations and shall be treated at par with negotiations in the case of one time purchases.

**1.36 Award Criteria**

- 1.36.1 Subject to ITB Clause 1.39, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily. The details of the award would be hosted on the website of the Purchaser.

**1.37 Purchaser's right to vary Quantities at Time of Award**

- 1.37.1 The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements to the extent of 25% without any change in unit price or other terms and conditions.

**1.38 Option Clause**

- 1.38.1 The Purchaser reserves the right to increase or decrease the quantity of the required goods up to 25% (Twenty-Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

### **1.39 Purchaser's right to accept Any Bid and to reject any or All Bids**

- 1.39.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

### **1.40 Notification of Award**

- 1.40.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or by cable or telex or fax or e mail that the bid has been accepted and a separate purchase order shall follow through post.
- 1.40.2 Until a formal contract is prepared and executed, the notification of award should constitute a binding contract.
- 1.40.3 Upon the successful Bidder's furnishing of the signed Contract Form and performance security pursuant to ITB Clause 1.43, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security.

### **1.41 Signing of Contract**

- 1.41.1 Promptly after notification, the Purchaser shall send the successful Bidder the Agreement/Purchase Order.
- 1.41.2 Within twenty-one (21) days of date of the Purchase Order, the successful Bidder shall sign, date, and return it to the Purchaser.

### **1.42 Order Acceptance**

- 1.42.1 The successful bidder should submit Order acceptance within 14 days from the date of issue of order/signing of contract, failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited pursuant to clause 1.16.9 of ITB.
- 1.42.2 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation beyond the original date. Even after extension of time, if the order confirmation is not received, the contract is liable to be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.

### **1.43 Performance Security**

- 1.43.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security (PS) in the amount specified in SCC, valid till 60 days after the warranty period.
- 1.43.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 1.43.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries or in equivalent Indian rupees in case the performance security is submitted by the Indian Agent.



- 1.43.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer/bidder.
- 1.43.5 The Performance security shall be in one of the following forms:
- (a) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized/ Scheduled bank located in India or a Foreign bank with preferably its operating branch in India in the form provided in the bidding documents. Or
  - (b) A demand draft in favour of the purchaser.
- Or,
- (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.
- 1.43.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.
- 1.43.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 1.43.8 The performance security must be received within 21 days. However, the Purchaser has the powers to extend the time frame for submission of Performance Security (PS). Even after extension of time, if the PS is not received, the contract is liable to be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.
- 1.43.9 Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.**

#### **1.44. Pre-bid Conference (PBC)**

- 1.44.1 A Pre-bid Conference shall be held as indicated in invitation to bid, if any. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate the purchaser the proper conduct of the Pre-bid Conference, all prospective bidders are requested to kindly submit their queries (with envelope bearing Tender No. and Date on top and marked "Queries for Pre-bid Conference") so as to reach the purchaser as indicated in invitation to bid. The purchaser shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. The proceeding of the Pre Bid Conference would be hosted on the website of the purchaser. Before formulating and submitting their bids, all prospective bidders are advised to surf through the purchaser's website after the Pre-bid Conference, in order to enable them take cognizance of the revised tender conditions.

#### **1.45 Integrity Pact**

- 1.45.1 Integrity Pact binds both buyers and sellers to ethical conduct and transparency in all activities from pre-selection of bidders, bidding and contracting, implementation, completion and operation related to the contract.

- 1.45.2 The Integrity pact essentially envisages an agreement between the prospective vendors/bidders and the buyer, committing the persons/officials of both sides, not to resort to any corrupt practices in any aspect/stage of the contract. Only those vendors/bidders, who commit themselves to such a Pact with the buyer, would be considered competent to participate in the bidding process. In other words, entering into this Pact would be a preliminary qualification. The essential ingredients of the Pact include:
- i) Promise on the part of the Purchaser to treat all bidders with equity and reason and not to seek or accept any benefit, which is not legally available;
  - ii) Promise on the part of bidders not to offer any benefit to the employees of the Purchaser not available legally and also not to commit any offence under Prevention of Corruption Act, 1988 or Indian Penal Code 1860;
  - iii) Promise on the part of bidders not to enter into any undisclosed agreement or understanding with other bidders with respect to prices, specifications, certifications, subsidiary contracts; etc.
  - iv) Undertaking (as part of Fall Clause) by the bidders that they have not and will not sell the same material/equipment at prices lower than the bid price;
  - iv) Foreign bidders to disclose the name and address of agents and representatives in India and Indian Bidders to disclose their foreign principals or associates;
  - v) Bidders to disclose the payments to be made by them to agents/brokers or any other intermediary;
  - vi) Bidders to disclose any past transgressions committed over the specified period with any other company in India or Abroad that may impinge on the anti-corruption principle;
  - vii) Integrity Pact lays down the punitive actions for any violation.
- 1.45.3 Each page of such Integrity pact proforma would be duly signed by Purchaser's competent signatory. All pages of the Integrity Pact are to be returned by the bidder (along with the technical bid) duly signed by the same signatory who signed the bid, i.e. who is duly authorized to sign the bid and to make binding commitments on behalf of his company. Any bid not accompanied by Integrity Pact duly signed by the bidder shall be considered to be a non-responsive bid and shall be rejected straightway.
- 1.45.4 The SCC shall specify whether there is a need to enter into a separate Integrity pact or not.
- 1.45.5 The Integrity Pact would be effective from the date of invitation of bids till complete execution of the contract.
- 1.45.6 The names and contact details of the Independent External Monitors (IEM) on the event of the need of IP is as detailed in the SCC.
- 1.45.7 The modal format of IP is at Chapter-8.

## CHAPTER 2

### CONDITIONS OF CONTRACT

#### A      GENERAL CONDITIONS OF CONTRACT (GCC)

##### Table of Contents

Sl. No.	Clause
2.1	Definitions
2.2	Contract Documents
2.3	Code of Integrity

2.4	Joint Venture, Consortium or Association
2.5	Scope of Supply
2.6	Suppliers' Responsibilities
2.7	Contract price
2.8	Copy Right
2.9	Application
2.10	Standards
2.11	Use of Contract Documents and Information
2.12	Patent Indemnity
2.13	Performance Security
2.14	Inspections and Tests
2.15	Packing
2.16	Delivery and Documents
2.17	Insurance
2.18	Transportation
2.19	Incidental Services
2.20	Spare Parts
2.21	Warranty
2.22	Terms of Payment
2.23	Change Orders and Contract Amendments
2.24	Assignment
2.25	Subcontracts
2.26	Extension of time
2.27	Liquidated Damages Clause
2.28	Termination for Default
2.29	Force Majeure
2.30	Termination for insolvency
2.31	Termination for Convenience
2.32	Settlement of Disputes
2.33	Governing Language
2.34	Applicable Law

2.35	Notice
2.36	Taxes and Duties
2.37	Right to use Defective Goods
2.38	Protection against Damage
2.39	Site preparation and installation
2.40	Import and Export Licenses
2.41	Risk Purchase Clause
2.42	Option Clause
2.43	Integrity Pact
2.44	Order Acceptance

## **GENERAL CONDITIONS OF CONTRACT (GCC)**

### **2.1 Definitions**

2.1.1 The following words and expressions shall have the meanings hereby assigned to them:

- (a) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
- (c) "Contract Price" means the price payable to the Supplier as specified in the  
Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- (d) "Day" means calendar day.
- (e) "Completion" means the fulfilment of the Goods and related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.

"GCC" means the General Conditions of Contract.

- (f) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (g) "Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (h) "SCC" means the Special Conditions of Contract.

- (i) "Subcontractor" means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- (j) "Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- (l) The "Council" means the Council of Scientific & Industrial Research (CSIR), registered under the Societies Registration Act, 1860 of the Govt. of India having its registered office at 2, Rafi Marg, New Delhi-110001, India.
- (m) The "Purchaser" means any of the constituent Laboratory/Institute of the Council situated at any designated place in India as specified in SCC.
- (n) "The final destination," where applicable, means the place named in the SCC.

## **2.2 Contract Documents**

- 2.2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

## **2.3 Code of Integrity**

- 2.3.1 Without prejudice to and in addition to the rights of the Purchaser to other penal provisions as per the bid documents or contract, if the Purchaser comes to a conclusion that a (prospective) bidder/supplier, directly or through an agent, has violated this code of integrity in competing for the contract or in executing a contract, the Purchaser may take appropriate measures including one or more of the following:
  - a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the purchaser;
  - b) Forfeiture or encashment of any other security or bond relating to the procurement;
  - c) Recovery of payments including advance payments, if any, made by the Purchaser along with interest thereon at the prevailing rate.
  - d) Provisions in addition to above:
    - 1) Removal from the list of registered suppliers and banning/debarment of the bidder from participation in future procurements of the purchaser for a period not less than one year;
    - 2) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India;
    - 3) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.

## **2.4 Joint Venture, Consortium or Association**

- 2.4.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

## **2.5 Scope of Supply**

- 2.5.1 The Goods and Related Services to be supplied shall be as specified in Chapter 4 i.e. Specifications and allied technical details.

## **2.6 Suppliers' Responsibilities**

- 2.6.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.

## **2.7 Contract price**

- 2.7.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

## **2.8 Copy Right**

- 2.8.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

## **2.9 Application**

- 2.9.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

## **2.10 Standards**

- 2.10.1 The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

## **2.11 Use of Contract Documents and Information**

- 2.11.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.
- 2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

## **2.12 Patent Indemnity**

- 2.12.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.12.2 Indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

- (a) the installation of the Goods by the Supplier or the use of the Goods in India; and

(b) the sale in any country of the products produced by the Goods.

2.12.2 If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

### **2.13 Performance Security**

2.13.1 **Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security** in the amount specified in SCC, valid till 60 days after the warranty period.

2.13.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

2.13.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries or in equivalent Indian Rupees in case the Performance Security is submitted by the Indian Agent.

2.13.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer/bidder.

2.13.5 The Performance security shall be in one of the following forms:

- (a) A Bank guarantee issued by a Nationalized/Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents.  
Or
- (b) Account Payee demand draft in favour of the purchaser. Or
- (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.

2.13.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.

2.13.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.

2.13.8 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order confirmation /PS are not received, the contract shall be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.

2.13.9 **Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.**

## **2.14 Inspections and Tests**

- 2.14.1 The inspections & test, training required would be as detailed in Chapter-4 of the Bidding Document relating to Specification and Allied Technical details.

## **2.15 Packing**

- 2.15.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 2.15.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

## **2.16 Delivery and Documents**

- 2.16.1 Delivery of the Goods and completion and related services shall be made by the supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 2.16.2 The terms FOB, FCA, CIF, CIP, etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.
- 2.16.3 The mode of transportation shall be as specified in SCC. In case the purchaser elects to have the transportation done through Air, then air lifting needs to be done through Air India only. In case Air India does not operate in the Airport of despatch, then the bidder is free to engage the services of any other Airlines.

## **2.17 Insurance**

- 2.17.1 Should the purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.
- 2.17.2 Where delivery of the goods is required by the purchaser on CIF or CIP basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- 2.17.3 Where delivery is on FOB or FCA basis, insurance would be the responsibility of the purchaser.
- 2.17.4 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.

## **2.18 Transportation**

- 2.18.1 Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the



Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

2.18.2 Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

2.18.3 In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.

## **2.19 Incidental Services**

2.19.1 The supplier may be required to provide any or all of the services, including training, if any, specified in chapter 4.

## **2.20 Spare Parts**

2.20.1 The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (b) In the event of termination of production of the spare parts:
  - (i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
  - (ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

## **2.21 Warranty**

2.21.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

2.21.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

2.21.3 Unless otherwise specified in the SCC, the warranty shall remain valid for Twelve months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for Eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.

2.21.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

- 2.21.5 Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 2.21.6 If having been notified, the Supplier fails to remedy the defect within a reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 2.21.7 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

## **2.22 Terms of Payment**

- 2.22.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.22.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfilment of other obligations stipulated in the contract.
- 2.22.3 *Payments shall be made promptly by the Purchaser but in no case later than thirty days after submission of the invoice or claim by the Supplier. While claiming the payment, the supplier should certify in the bill/invoice that the payment being claimed strictly in terms of the contract and all obligations on the part of the supplier for claiming the payment have been fulfilled as required under the contract.*
- 2.22.4 Payment shall be made in currency as indicated in the contract.

## **2.23 Change Orders and Contract Amendments**

- 2.23.1 The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:
- (a) Increase or decrease in the quantity required, exercise of quantity opinion clause;
  - (b) Changes in schedule of deliveries and terms of delivery;
  - (c) The changes in inspection arrangements;
  - (d) Changes in terms of payments and statutory levies;
  - (e) Changes due to any other situation not anticipated;
- 2.23.2 No changes in the price quoted shall be permitted after the purchase order has been issued except on account of statutory variations.
- 2.23.3 No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

## **2.24 Assignment**

- 2.24.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

## **2.25 Subcontracts**

- 2.25.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the contract.

## **2.26 Extension of time.**

- 2.26.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.
- 2.26.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 2.26.3 Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to liquidated damages Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

## **2.27 Liquidated Damages**

- 2.27.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value in case the delivered price of the delayed goods or unperformed services cannot be ascertained from the contract, for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default.

## **2.28 Termination for Default**

- 2.28.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part
- (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; or
  - (b) If the Supplier fails to perform any other obligation(s) under the Contract.
  - (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices etc as defined in GCC Clause and ITB clause on code of integrity in competing for or in executing the Contract.
- 2.28.2 In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
- (a) The Performance Security is to be forfeited;
  - (b) The purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.
  - (c) However, the supplier shall continue to perform the contract to the extent not terminated.

## **2.29 Force Majeure**

- 2.29.1 Notwithstanding the provisions of GCC Clauses relating to extension of time, Liquidated damages and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

- 2.29.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.29.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 2.29.4 If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

### **2.30 Termination for Insolvency**

- 2.30.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

### **2.31 Termination for Convenience**

- 2.31.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- 2.31.2 The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
- (a) To have any portion completed and delivered at the Contract terms and prices; and/or
  - (b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

### **2.32 Settlement of Disputes**

- 2.32.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 2.32.2 If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 2.32.3 The dispute settlement mechanism/arbitration proceedings shall be concluded as under:

- (a) If any dispute or difference arises between the parties hereto as to the construction, interpretation, effect and implication of any provision of this agreement including the rights or liabilities or any claim or demand of any party against other or in regard to any other matter under these presents but excluding any matters, decisions or determination of which is expressly provided for in this Agreement, such disputes or differences shall be referred to an Arbitral Bench consisting of three Arbitrators, one each to be appointed by each party and the two Arbitrators shall appoint a third Arbitrator who shall be the presiding Arbitrator. A reference to the Arbitration under this Clause shall be deemed to be submission within the meaning of the Arbitration and Conciliation Act, 1996 and the rules framed thereunder for the time being in force. Each party shall bear and pay its own cost of the arbitration proceedings unless the Arbitrators otherwise decides in the Award.
- (b) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

2.32.4 The venue of the arbitration shall be the place from where the purchase order or contract is issued. i.e **JAMMU(J&K)**

2.32.5 Notwithstanding, any reference to arbitration herein,

- (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) the Purchaser shall pay the Supplier any monies due the Supplier.

### **2.33 Governing Language**

2.33.1 The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

### **2.34 Applicable Law**

2.34.1 The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

### **2.35 Notices**

2.35.1 Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or and confirmed in writing to the other party's address specified in the SCC.

2.35.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### **2.36 Taxes and Duties**

2.36.1 For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.

2.36.2 For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.

2.36.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

2.36.4 **All payments due under the contract shall be paid after deduction of statutory levies (at source) (like IT, etc.) wherever applicable.**

- 2.36.5 **Customs Duty** – If the supply is from abroad this Institute is permitted to import goods as per notification No.51/96 – Customs and pay a concessional duty up to 5% as per notification 24/2002 – Customs on all imports.

### **2.37 Right to use Defective Goods**

- 2.37.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

### **2.38 Protection against Damage**

- 2.38.1 The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:
- (a) Voltage 230 volts – Single phase/ 415 V 3 phase (+\_ 10%)
  - (b) Frequency 50 Hz.

### **2.39 Site preparation and installation**

- 2.39.1 The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the purchaser's site immediately after notification of award/contract.

### **2.40 Import and Export Licenses**

- 2.40.1 If the ordered materials are covered under restricted category of EXIM policy in India the Vendor / Agent may intimate such information for obtaining necessary, license in India.
- 2.40.2 If the ordered equipment is subject to Vendor procuring an export license from the designated government agency / country from where the goods are shipped / sold, the vendor has to mention the name, address of the government agency / authority. The vendor must also mention the time period within which the license will be granted in normal course.

### **2.41 Risk Purchase Clause**

- 2.41.1 If the supplier fails to deliver the goods within the maximum delivery period specified in the contract or Purchase Order, the purchaser may procure, upon such terms and in such a manner as it deems appropriate, Goods or Services similar to those undelivered and the Supplier shall be liable to the purchaser for any excess costs incurred for such similar goods or services.

### **2.42 Option Clause**

- 2.42.1 The Purchaser reserves the right to increase or decrease the quantity of the required goods up to 25% (Twenty-Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

### **2.43 Integrity Pact**

- 2.43.1 The SCC shall specify whether there is a need to enter into a separate Integrity pact or not.
- 2.43.2 The names and contact details of the Independent External Monitors (IEM) on the event of the need of IP is as detailed in the SCC.

## **2.44 Order Acceptance**

- 2.44.1 The successful bidder should submit Order acceptance within 14 days from the date of issue of order/signing of contract, failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited pursuant to clause 1.16.9 of ITB.

### **B SPECIAL CONDITIONS OF CONTRACT Table of Contents**

<b>Sl. No.</b>	<b>GCC Clause</b>
01.	GCC 2.1.1 (m)
02.	GCC 2.1.1 (n)
03.	GCC 2.13.1
04.	GCC 2.15.2
05.	GCC 2.16.1
06.	GCC 2.16.3
07.	GCC 2.17.1
08.	GCC 2.21.3
09.	GCC 2.22.1
10.	GCC 2.27.1
11.	GCC 2.27.1
12.	GCC 2.34.1
13.	GCC 2.35.1
14.	GCC 2.43.1
15.	GCC 2.43.2

### Special conditions of contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

S.N.	GCC Clause Ref	Condition
1	GCC 2.1.1(l)	The Purchaser is: Indian Institute of Integrative Medicine , Canal Road Jammu -180001 <i>(name and complete postal address)</i>
2	GCC 2.1.1(m)	The Final Destination is: Canal Road Jammu -180001 ( <i>complete postal address</i> )
3	GCC 2.13.1	The amount of the Performance Security shall be 10 % of the contract value.
4	GCC 2.15.2	The marking and documentation within and outside the packages shall be: (a) Each package should have a packing list within it detailing the part No(s), description, quantity etc.  (b) Outside each package, the contract No., the name and address of the purchaser and the final destination should be indicated on all sides and top.  (c) Each package should be marked as 1/x, 2/x, 3/x.....x/x, where "x" is the total No. of packages contained in the consignment.  (d) All the sides and top of each package should carry an Appropriate indication/ label/ stickers indicating the precautions to be taken while handling/storage.
5	GCC 2.16.1	Details of Shipping and other Documents to be furnished by the Supplier are : <u>For goods manufactured within India</u> Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/Email. (a) Two copies of Supplier's Invoice indicating, <i>inter-alia</i> description and specification of the goods, quantity, unit price, total value; (b) Packing list; (c) Certificate of country of origin; (d) Insurance certificate, if required under the contract; (e) Railway receipt/Consignment note; (f) Manufacturer's guarantee certificate and in-house inspection certificate;



- (g) Inspection certificate issued by purchaser's inspector, if any; and
- (h) Any other document(s) as and when required in terms of the contract.

Note:

1. **The nomenclature used for the item description in the invoices(S), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).**
2. **The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.**

For goods manufactured abroad

Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by Registered Post/courier and copies thereof by FAX/Email.

- (a) Two copies of supplier's Invoice giving full details of the goods including quantity, value, etc.;
- (b) Packing list;
- (c) Certificate of country of origin issued by supplier;
- (d) Manufacturer's guarantee and Inspection certificate;
- (e) Inspection certificate issued by the Purchaser's Inspector, if any;
- (f) Insurance Certificate, if required under the contract;
- (g) Name of the Vessel/Carrier;
- (h) Bill of Lading/Airway Bill;
- (i) Any other document(s) as and when required in terms of the contract.

Note:

1. **The nomenclature used for the item description in the Invoices (s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).**
2. **The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.**

- |   |            |  |
|---|------------|--|
| 6 | GCC 2.16.3 | In case of supplies from within India, the mode of transportation shall be by <b><i>Air/Rail/Road.</i></b><br><b><i>(retain one only)</i></b><br>In case of supplies from abroad, the mode of transportation shall be by <b><i>Air/Ocean.</i></b><br><b><i>(retain one only)</i></b> |
|---|------------|--|

7	GCC 2.17.1	The Insurance shall be for an amount equal to 110% of the CIF or CIP value of the contract from within “warehouse to warehouse (final destination)” on “all risk basis” including strikes, riots and civil commotion.
8	GCC 2.21.3	The period of validity of the Warranty shall be 1YEARS(12 months ) from the date of <b>acceptance/installation and commissioning</b> .
9	GCC2.22.1	<p>The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:  <u>Payment for Goods supplied from abroad:</u>  Payment of foreign currency portion shall be made in currency of the Contract in the following manner:</p> <p>(a) On Shipment: 80 percent ( 80 %) of the Contract Price Of the Goods shipped shall be paid through irrevocable letter of credit opened in favour of the Supplier in a bank in its country, upon submission of documents specified in GCC Clause 2.16.</p> <p>(b) On Acceptance: 20 percent ( 20 %) of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of Goods and successful installation &amp; commissioning upon submission of claim supported by the acceptance certificate issued by the Purchaser along with the Performance security, if any.</p>
	GCC 2.22.1	The L/C will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the opener i.e. purchaser. If L/C is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers' account. Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed. The LC

		<p>for 100% value of the contract shall be established after deducting the agency commission payable if any, to the Indian agent from the FOB/FCA value.</p> <p><u>Payment for Goods and Services supplied from India:</u></p> <p>The payment shall be made in Indian Rupees, as follows:</p> <p><i>Payments shall be made promptly by the Purchaser but in no case later than thirty days after submission of the invoice or claim by the Supplier. While claiming the payment, the supplier should certify in the bill/invoice that the payment being claimed strictly in terms of the contract and all obligations on the part of the supplier for claiming the payment have been fulfilled as required under the contract.</i></p> <p>OR</p> <p>After shipment/delivery of 100% material at site : <b>70percent</b> of the total material supplied</p> <p>Price shall be paid on receipt of the Goods in good condition and upon submission of the documents specified in GCC Clause 16.1</p> <p>(b) On Acceptance: Balance amount of the contract value shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate by the Purchaser subject to submission of performance Bank Gaurantee.</p>
		<p><b>Note:</b></p> <p><b>All payments due under the Contract shall be paid after deduction of statutory levies at source (like ESIC, Income Tax, etc.), wherever applicable.</b></p>
10	GCC 2.27.1	The penalty shall be 0.5% per week or part of a week towards late delivery and towards delay in installation and commissioning.
	GCC 2.27.1	The maximum amount of penalty shall be 10%
11	GCC 2.34.1	The place of jurisdiction is Jammu (J&K) <b>(name of the place from where the contract is issued)</b>

12	GCC 2.35.1	For notices, the Purchaser's address is The Director, Indian Institute of Integrative Medicine Canal Road Jammu
13	GCC 2.35.1	Telephone: :+91- 2585032 EPABX Tel:+91_____ Facsimile number: :+91_____ Electronic mail address <u><i>praphul.spo@iiim.res.in</i></u>
14	GCC 2.43.1	The integrity pact is to be signed/not signed <b>(if required)</b>
15	GCC 2.43.2	<i>The name and contact details of the IEMs are as under:</i>

### **CHAPTER 3**

**(To be filled by the bidder as appropriate and enclosed with the Technical Bid)**

#### **SCHEDULE OF REQUIREMENT**

Sl. No.	Brief Description of Goods & Services	Quantity	Physical Unit	Final destination/ Place	Delivery Schedule (to be filled by the bidder)	Time frame required for conducting installation, commissioning of the eqpt., acceptance test, etc. after the arrival of consignment (to be filled by the bidder)

Term of delivery:      FOB / FCA / CIF / CIP \_\_\_\_\_ **(named port of shipment or named place of delivery)**  
**(retain only one)**

Period of delivery shall count from : \_\_\_\_\_  
(to be filled by the bidder)

Scope of Supply : \_\_\_\_\_

Training requirement: \_\_\_\_\_

***(Location, no. of persons, period of training, nature of training)***

Date : .....

Place : .....

**Signature of the Bidder**

**Notes for Bidders:**

- (1) The delivery schedule shall clearly indicate the time period within which the successful bidder must deliver the consignment in full from the date of establishment of LC or from the date of contract or from the date of advance payment etc. It should also indicate separately the time period desired for installation and commissioning of the equipment after arrival of the consignment at the premises of the Purchaser.
- (2) The date or period for delivery should be carefully specified, taking into account
  - (a) The implications of delivery terms stipulated in the Instructions to Bidders pursuant to the Incoterms rules (i.e., EXW, or CIF, CIP, FOB, FCA terms— that “delivery” takes place when goods are delivered to the carriers), and

The date prescribed herein from which the delivery obligations start (i.e., notice of award, contract signature, opening or confirmation of the letter of credit, date of releasing advance payment etc.).

Chapter 4

**TECHNICAL SPECIFICATION**

SUPPLY, INSTALLATION, TESTING. AND COMMISSIONING (SITC) OF  
MODULAR CLEAN ROOM (ISO CLASS 10000, 1000 AND 100) & UTILITIES  
ON A TURNKY BASIS FOR MICROBIOLOGY LABORATORY AT IIIM, JAMMU

Indian Institute of Integrative Medicine

Canal Road, JammuTawi. 180 001

**(2020-21)**



## **BIDDER PREQUALIFICATION CRITERIA**

**Bidder shall meet all the pre-qualification criteria as given below for qualifying to this tender. In the event of only one Bidder qualifying technically, the Technical Committee shall have the right to accept or reject the concerned bidder**

The bidder shall furnish a covering page indicating item wise compliance to all the Prequalification criteria. Bidder Prequalification Criteria are as given below:

1. The Bidder shall have experience in Designing, Drawing, SUPPLY, INSTALLATION, TESTING. AND COMMISSIONING (SITC) of Modular Clean Room (ISO CLASS 10000, 1000 AND / BSL-3 facilities for Microbiology lab
2. The Bidder have carried out preferably three similar works, each of value not less than 40%, Two similar works, each of value not less than 60%, One similar works, each of value not less than 80% of the estimated cost, in the 7 years ending on the last day of the month previous to the one in which the tender are invited. At least one contract should be in Govt. Universities/any of Central PSU's / Autonomous Bodies. The project executed as such by the Bidder should be in operation currently. The Bidder should produce the backup documents like Purchase Order, completion certificates etc.
3. Similar work shall mean "Designing, Manufacturing, Supply, Execution, Commissioning and Servicing of essential equipment's, Laboratory Furniture/Clean room Comprising of Lab Work Benches, Exhaust System,HVACS and other Utility Distribution System"
4. The project executed as such by the Bidder should be in operation currently.
5. The vendor should have a well-established Make in India (in house) manufacturer and supplier to create the clean room facility and have Quality Management System as per International Standards providing the products and services on the continued basis for the last 6 years. The vendor shall possess the current / valid approval for such equipment manufacturing facility by a Statutory Certifying Authority, like Factory Inspectorate etc. A notarized copy of valid certificate needs to be enclosed.
6. OEM SHOULD HAVE 5 YEARS OF SEFA MEMBERSHIP, SEFA 8M & SEFA 10 THIRD PARTY CERTIFICATIONS, ASHRAE, ISO 9001, 14001, 18001,13485 CERTIFICATION AND BIFMA AND HAVING THE ABILITY TO COMPLETE THE PROJECT ON THE STIPULATED TIMELINE. (Supporting documents for the same need to be furnished)

7. If required, the technical committee from IIIM Jammu shall visit the similar works completed by vendors and submitted as mentioned above to assess their capability. Bidder will be liable to arrange the visit of IIIM Jammu team.
8. Preference shall be given to Technical and Commercial both the aspects while awarding the contract. The Bidder shall visit IIIM, Jammu, and Project site TO UNDERSTAND THE REQUIREMENTS OF THE SITE. The Bidder shall study the scope in detail and take necessary measurements/details etc. before submitting the Bid, **if any query, they will put a question to Scientist In-charge or Site Engineer.**
9. The Bidder shall provide the complete documentary evidence duly self-attested by notary for the following in support of Bidder Pre-Qualification Criteria.
10. MANUFACTURERS/VENDORS/SUPPLIERS SHOULD TAKE EXACT MEASUREMENTS REQUIRED FOR CIVIL WORKS/ DUCTING/TUBING/PIPING/ELECTRICAL WIRING/WATER CONNECTION/DRAINAGE/GAS PIPING, PANELS AS WELL AS CALCULATE THE NUMBER OF CLAMPS, FERRULES, NUTS BOLTS AND OTHER SIMILAR ITEMS ETC. AND QUOTE ACCORDINGLY.

**Warranty:** One-year guarantee against all manufacturing defects including all free services under liability period.

*(The bidder shall perform AMC i.e maintenance of Clean room Laboratory, HVAC, Furniture, Fire alarm System, CCTV camera, Bio safety cabinet, Laminar Flow Fume Hood and utilities after completion of defect liability period as per given details in BOQ.)*

**FINAL PAYMENT TO THE SUCCESSFUL BIDDER FOR SUCH WORKS WILL BE AS PER ACTUAL LENGTH/NUMBER OF ITEMS USED.**

For Clause no. 1, 2, 3, 4, 5

1) Purchase Orders

2) Completion Certificates and experience of performance for jobs, issued by the clients.

3) Experience details duly filled in following format.

S. No	Name of client	Name & location of the project	Brief description of project	Value of the Project	Documents submitted
					(PO copy & completion certificate) – (Y/N)

--	--	--	--	--	--

For Clause no. 2.0

1) Audited balance sheets of financial years 2017, 2018& 2019.

2) Annual Turnover details duly filled in the following format.

Financial year	2016-17	2017-18	2018-19
Annual Turnover			

**Bidder shall submit EMD for Rs. (2,50,000.00) payable to M/s Director, IIIM, Jammu. Bids without EMD shall be summarily rejected.**

**Note to Bidders:** Offers of Bidders failing to submit the prescribed documents in support of the above prequalification criteria shall be rejected.

# **Specifications and allied Technical details**

## **1. INTRODUCTION**

Design, Drawing and SITC of Modular Clean Room (ISO CLASS 10000,1000 AND 100) for Microbiology lab at IIIM, Jammu.

## **2. Objectives**

The objective of this technical document is to provide the client with documents on design, drawing, technical specifications of items to be installed at IIIM, Jammu Site. Also provide List of Make /Model and specification of all the items for approval before supply at site.

The purpose of the document is to Technical commercial specifications of the Modular Clean Room Class 10000 as per FSSAI, FDA and cGMP norms to be installed as per requirements at IIIM Jammu.

## **3. Scope**

- 1.Design, Drawing and SITC of Modular Clean Room (Class 10000) Including HVAC.
2. Design, and drawing approval for PUF panels along with installation of panels for walls as well as ceiling.
3. Supply and installation of Double-glazed view window in wall panels and doors as per requirements.
4. Supply and installation of SS Laboratory Furniture, Laminar Air Flow, Bio-safety cabinet, Autoclaves, SS Garment Rack, SS Cross Over bench cum Shoe Rack etc as per requirement.
5. Supply and installation of Electrical system as per requirement.
6. Supply and installation of thermal insulation of Ducting as per BOQ.
7. Dismantling and civil works as per site requirement.

## **4. Technical Specification**

### **A. CLEAN ROOM PANELS**

## Wall Panels:

Following two options should be considered for the Material of Construction (MOC) of the wall panels, and included in the technical and price bid accordingly.

**Option (A):** Aluminium honeycomb - The MOC should be aluminium honeycomb infill sandwiched between 0.6 to 0.8 mm aluminium skin sheets, and have a powder coat with epoxy finish.

**Option (B):** GI PUF - The MOC should be self-extinguishing quality (FM approved) Poly-Urethane Foam (PUF) of density not less than 38 kg/m<sup>3</sup>. The inner and outer skin should be of powder coated GI steel sheet, the thickness of inner skin and outer skin of the panel should not be less than 0.8 mm. The powder coated steel sheet shall be hot dip galvanized with zinc coating not less than 180 gm/sq. m.

### All wall panels should possess the following configuration:

- Smooth, cleanable, air tight, modular, structurally stable, static-dissipative, without out gassing.
- Standard white colour; minimum width 1100 mm and suitable length for continuous lamination.
- The height of wall panel system shall be 3500 mm high from FFL in the areas of the raised access floor & 3300 mm from FFL of the solid floor in the Air Lock Room & Changing Room.
- The wall panel height shall be 6300 mm high from FFL where the clean room wall system is required to go below the raised access floor (600 mm below the raised access floor).
- The Wall panels shall be fixed between the suspended false ceiling and the perforated flooring using gasket Ceiling and floor head track with intermediate posts, corner posts & covering strips made out of powder coated Anodized aluminium material matching the panels.
- There shall be provision for accommodating doors, electric sockets, conduits, boxes, ducts, utility piping, and process machines/tool penetration etc.

### Doors:

Airtight, Swing configuration, flush type, double glazed with see-through portion at the top half of the door using 6 mm thick tempered glass Minimum door thickness: 44 mm. Door panels: static dissipative, double skin with minimum 0.8 mm thick powder coated anodized aluminium with in-fill of aluminium honeycomb between the aluminium skin sheets OR

Self-extinguishing quality Poly-Urethane Foam between 0.8 mm thick powder coated GI steel sheet (same as Wall Panel material). Door frames: extruded anodized aluminium; shall include concealed door closures, handles, lock & key sets with option of both side access. Single door size: 900mm × 2100 mm; Emergency Double Door # 1 size: 2500 mm (w) × 3000 mm (h) (Diffusion Lab) Emergency Double Door # 2 size: 2200 mm (w) × 3000 mm (h) (Photolithography lab) Emergency Doors shall have Panic Bar arrangements. Door sizes should be measured from inner to inner of frames.

***Important: Access controlsystem must be there.***

### Windows / view panels:

MOC: Toughened and tempered double glass of minimum 6 mm thickness. Minimum size: 1000 mm width × 1000 mm height. View Panels should be placed at ~ 1000 mm – 1200 mm above the finished floor level on the wall panels. All the joints between toughened glass and wall panels should be sealed. Provision for Silica Gel Bed and Curved corners and borders of the view panel Preferred.

**Coving:**

**Radius 60 mm/50 mm.**

MOC: anodized Aluminium. To be fixed along the joints between walls panels, walls & the false ceiling joints, and 3D covings at the Corners as required.

**Ceiling Panels:**

Double skin, walkable, static dissipative, flush type panels in false ceiling. ☐ Dimensions 80 mm thick of Approved size, with min. 0.5 mm thick steel skin roll coated with type; with aluminium honeycomb/Puf core material. Provision in the false ceiling grid to fix light fixtures and sprinkler heads.

**Cut-out in Wall panel and ceiling panel:**

Suitable factory-made cut-outs wherever required shall be provided in the wall/ceiling panels. For example, cut-outs will be required for fan filter modules, return air risers, AC ducts, view panels, doors, electrical sockets/cables, gauges, building security components, clean room tool inlet, and exhaust pipes etc. All cut-outs made in the wall panel and ceiling shall have a smooth finish as required for the clean room environment. The rate towards the same is deemed to be included in the offer.

**B. CLEAN ROOM EQUIPMENTS**

<b>1</b>	<b>STATIC PASS BOX</b>
	Supply,installation,testing & commissioning of SS-304 Dynamic Pass box having both double door having electromagnetic interlocking One time one side only open to control cross contamination with having UV light as well fluorescent light .
	<b>Size:- 600X600X600</b>
<b>2</b>	<b>CROSS OVER BENCH</b>
	Supply,installation, testing& commissioning of cross over bench made SS-304, both side shoes storing rack and blocking cross contamination to unclassified to classified area.
	<b>Size:- 1500X350X610</b>
<b>3</b>	<b>DYNAMIC PASS BOX</b>

	Supply, installation of Dynamic pass box fabricated with SS-304, completely automatic by using magnetic interlocking, one door lock automatically when the other is opened. Hepa filter (Mini Pleated) with efficiency of 99.997% down to 0.3 micron to be installed on ceiling top and pre filter down to 10 micron with an efficiency of 90% to be installed at side bottom. Dynamically and statically balanced blower with motor suitable for class 100k to be installed with Dwyer make magnahelic gauge,1x36w florescent light. Doors shall be double skin doors made of SS with glass view panel UV Light of Philips/eq. make 1x30w,single phase.220v,50Hz along with UV meter hour meter shall be provided to have a check on burning hour of UV. light
	<b>Size:- 305X305X305-DIGITAL DISPLAY</b>
<b>5</b>	<b>BIOSAFETY CABINET (STAINLESS STEEL) CLASS II, TYPE A-2.</b>
	<ul style="list-style-type: none"> <li>• Class II Bio-safety Cabinet Type A2 design.</li> <li>• Should include a germicidal UV lamp, set of arm rest, an electrical outlet and a support stand provided with levelling bases.</li> <li>• Size 4 feet width and the front window must have 8/ 10" sash opening with working surface of stainless steel 304.</li> <li>• Motor should beDC or ECM &amp; must automatically adjust the airflow speed (balancing inflow and down flow) without the use of a damper to ensure continuous safe working conditions.</li> <li>• The microprocessor must display the inflow and down flow air velocities in real-time on an LED/LCD display.</li> <li>• HepaFilter should be 99.995% MPPS(Most Penetrating Particle Size)</li> <li>• UV light must be programmable to allow for specific exposure times from 0 to 24 hours. Lightening power should &gt;1100 lux(100fc);cabinet noise level must be less than 65 dB(A)</li> <li>• Cabinet should be EN 12469/ NSF (National Sanitation Foundation) certified and certificate of the quoted model should be attached.</li> <li>• Power Consumption in Normal mode :200W ±10%</li> <li>• CE certified with Warranty of 3 year and optional extended warranty for 3 years</li> <li>• The supplier should have at least 20 installations Base of Bio-safety in India.</li> </ul>
	<b>Size:- 1200X600X600</b>
<b>6</b>	<b>BGLS -206(HLF 2) Laminar Air Flow – Vertical</b>
	<p>Laminar air flow cabinets able to create particle free air of Class-II Standard. The cabinet is fabricated out of Stainless Steel (SS 304) Both interior and exterior. Laminar flow is based on principle of double filtration of air. Atmospheric air will be drawn through the Pre-filters by heavy duty blowers. Filtered air than passed through highly effective HEPA Filters with 99.97% efficiency for particulates of 0.3 micron or larger along with meter display, which can filter almost all air born contaminants such as dust, fungal spores, bacteria etc. Double filtered laminar flow air will blow horizontally/vertically through the working table at a nominal velocity or approx. 90 Fts/min. Heavy duty imported blowers dynamically balanced with 0.25 HP electric motor are mounted on shock resistant base of cabinet or anti-vibration pads, operate on 230 +/- 10 volts, 50 Hz AC supply. Shadow less uniform lighting is provided within working space (100 feet candles).</p> <p>Vertical – VLF 2 Working Area – 4 ft X 2ft X 2ft</p>

	Size of HEPA Filter- 4ft X 2ft X 6ft No. of HEPA Filter – 01 No of Pre filter – 01 Illumination – 1X 40 W
<b>7</b>	<b>Autoclave - Vertical Steam Sterilizer</b>
	Construction: Triple Walled Model No. of walls: Three Output Result : Complete Dry Interior & Exterior: SS 304 Gasket : Joint less Neoprene Gasket Working Pressure: 15 – 20 psi Working Temperature :110°C to 129°C Controller based :PID controller Pressure display :Analog dial gauge Timer: Digital Timer with Alarm Hydraulic tested :Tested up to 40 psi Basket : Stainless steel wire mesh type basket Power supply : Single-phase/triple phase Safety features : Low water indicator, Automatic pressure switch, Steam release valve, spring-loaded safety valve, Over temperature protection 21 CFR controller: 21 CFR controllers & software with our Steam Sterilizer for real-time monitoring of the temperature and pressure. 21 CFR controllers come with a computer interface that gives you real-time recording without any manipulation. Our controller displays digital temperature, digital pressure, digital timer, purging temperature, & F0 value. 21 CFR controllers comes with many features required for Steam Sterilizer. Real-time printing, Real-time data logging, F0 Value 4 channel mapping, Real-Time chart, Digital Pressure display Fully automatic operation Diameter 500 mm X Height 760 mm , Volume 150 litres, Load 5kW
<b>8</b>	<b>Autoclave - Horizontal Steam Sterilizer, Rectangular Shape</b>



	<p>Shape Rectangular</p> <p>Operating temperature 121°C -134 °C</p> <p>Operating pressure 15 to 25 psi</p> <p>Hydraulic tested on 40 psi</p> <p>Insulation High-Quality Glass wool</p> <p>Piping Stainless Steel 304</p> <p>Chamber condensate line Moisture Trap</p> <p>Controller type NABL certified PID temperature controller, Digital timer controller with END cycle buzzer</p> <p>Sensor Calibrated PT 100</p> <p>Heaters ISI mark immersion heaters</p> <p>LID SS 304 w/ Pressure locking device</p> <p>Radial locking system Chrome-plated MS</p> <p>Stand SS 304</p> <p>Tray SS tray /Sliding Trolley option rectangular</p> <p>Power supply 440 Volts 50 Hz, Three Phase</p> <p>Diameter X Height (mm) 500X900</p> <p>Volume (Liters) 175</p> <p>Standard IS 3829,ISO,ASTM and CE</p> <p>PLC with HMI Delta, Siemens &amp;Eurotherm PLC with touch screen HMI for better user experience. PLC consists of data logging facility, pre-set programs, USB port, RS 232 port, Graph, Animation and real-time printing with time, pressure and temperature recording.</p> <p>Temperature Controller a microprocessor-based PID controller consists of temperature, timer with a buzzer alarm. The controller has a double LED display for set and process value with a time of 9999 minutes.</p> <p>21 CFR Controllers 21 CFR controllers display F0 value with an online data recording facility without any manipulation. 15 minutes at 121.1 degrees give F0 value 15 points; it is an important factor these days in the sterilization of surgical instruments in the pharmaceutical industry.</p> <p>Pressure Controller The pressure controller cuts off the electrical supply of heaters when it reaches to set value.</p> <p>DOORS The sterilizer can be designed in a single door or double door with a radial locking provision. Negative or positive pressure doesn't allow the door to open until it comes to atmospheric pressure.</p> <p>TROLLEY The trolley can be designed in stainless steel or Mild steel with SS wheels for easy mobility. The trolley is a very essential part of the horizontal sterilizer which saves material from contamination.</p> <p>Safety Features Moisture Trap, Emergency ON/OFF, Vacuum Breaker, Multi Port Valve, Low water indicator, Automatic pressure switch, Steam release valve, spring-loaded safety valve, Over temperature protection</p>
<b>9</b>	<b>Anti-Vibration Table</b>
	Size L 900 mm X D 600 mm X H 900 mm
<b>10</b>	<b>Full Height Cabinet for Storage with glass door, As per SEFA Norms</b>

	<p>Tall Vertical Storage Cabinet for keeping files (Size L 1000 mm X W 400 mm X H 2100 mm) Material of construction of under storage cabinet</p> <p>Storage cabinets are custom-designed to fit in the given space with enough shelves and compartments as deemed necessary to utilize maximum available space for keeping files, books etc.</p> <p>Material of construction: Cabinet made in thick GI construction with corrosion resistant powder-coating/speciality coating.</p> <p>Number of shelves as per the size.</p> <p>Cabinet doors are made of toughened glass for easy visibility of books/files inside the cabinets.</p> <p>Door handles are pull type anodized/SS with self-closing hinges</p>
<b>11</b>	<b>Wall Bench with Overhead cabinets as per SEFA 8M and SEFA 10 Norms</b>
	L (mm) X B(mm) X H (mm) = (1200+900+1500+1800+2100) X 750 X 900, Material of construction - SS 304, along with Electrical raceway.
<b>12</b>	<b>Under benches for Wall bench as per SEFA 8M and SEFA 10 Norms</b>
	On heavy duty SS castors, Dimension -L(mm) X B (mm) X H (mm) = 600X500X820 with two doors and one drawer
<b>13</b>	<b>BOD Incubator (Refrigerated)</b>
	<ul style="list-style-type: none"> <li>• Standard temperature setting range 0°C up to 99.9°C .</li> <li>• Temperature Uniformity <math>\pm 0.3</math> °C at 37 °C.</li> <li>• Control: The system should have Microprocessor PID Control Technology.</li> <li>• Volume: The system should be in the chamber volume range of 110 -150 Liters</li> <li>• Door Sealing: The system should have Secure 2-point door seal and eccentric hinge ensure maximum gasket compression for stable chamber temperature</li> <li>• Ventilation system: <ul style="list-style-type: none"> <li>○ Forced convection design which allows rapid temperature response rates, improves the Uniformity and reduces fluctuation.</li> <li>○ Low noise during operation.</li> <li>○ Ventilated stainless steel shelves contribute to uniform air circulation.</li> </ul> </li> <li>• Heating Technology: The system should have Pre heating technology where there are no exposed heating elements located inside the chamber to ensure maximum user safety.</li> <li>• Access port: The system should have access port for temperature validation &amp; mapping.</li> <li>• Defrosting system: The system should have Auto defrosting system, which should get activate regularly for a pre-determined period</li> <li>• Disinfection System: The system should have UV disinfection system which should run after initial start-up or manual control</li> <li>• Exterior &amp; Interior: The exterior of the system should be of Electro galvanized steel with Antimicrobial Coating for killing the surface bacteria &amp; the interior should be of Stainless steel, grade 304 with two SS Shelves</li> </ul>

	<ul style="list-style-type: none"> <li>Exterior Dimensions: Due to the space constraint the external dimension must not be higher than W × D × H = 32" × 33" × 41"</li> <li>Data Logging: PC-based software package developed for remote monitoring, data logging and programming/device configuration should be included.</li> <li>Machine must be supplied with validation certificates i.e. DQ, IQ, OQ, PQ</li> <li>Machine must be EN ISO/IEC 17050-1:2010 and CE certified</li> </ul>
14	<b>CO2 Incubator</b>
	<ul style="list-style-type: none"> <li>Temperature range Ambient +5°C to 45°C .</li> <li>Temperature Uniformity ±0.3 °C at 37 °C.</li> <li>Interior Volume: Minimum 170 liters and must not be higher than 200 liters</li> <li>CO2 control range: 0-20%. Control: Better than ±0.1%, measures with T/C sensor</li> <li>Readability and Satiability at least 0.1%.</li> <li>Stainless steel shelves and supports should be readily removable without tools for easy cleaning, autoclaving or adjustment.</li> <li>Heat sterilization cycle of at least 140°C for 12 hours to safely kill all organisms within the chamber.</li> <li>Built in system audible alarm should be activated if the outer door is opened during the Heat Sterilization cycle and the temperature is 60°C or greater to ensure safety in the lab.</li> <li>The Microprocessor Control System should give clear cut written message for the errors, should guide through the cycle with start-up and cycle status messages during decontamination phase.</li> <li>Post decontamination process, the system should return to normal operating status without the need for manual cleaning.</li> <li>HEPA filtered chamber airflow.</li> <li>100% filtration of chamber air every 60 seconds to clean room particulate and air borne contamination to best air quality standards thereby providing constant protection against contaminations.</li> <li>Built-in system with adjustable timeframe to notify the user when it's time to replace the filter and should be easily removable without tools.</li> <li>Uniform distribution of direct heat at every part of the inner chamber.</li> <li>There should be microbiological filters on all gas inlets and outlets and sample ports to reduce the potential contamination sources.</li> <li>Programmable tracking alarms for temperature and CO2. Alarms should be custom configurable.</li> <li>All probes and sensors located inside the chamber should be easily located.</li> <li>System should be compatible to 230V/50-60 Hz.</li> <li>Machine must be EN ISO/IEC 17050-1:2010 and CE certified</li> </ul>
15	<b>GARMENT CABINET (SS)</b>
	Garment Cabinet (L900mm X W400mm X H2700mm) with UV light provision, HEPA filter, Pre-filters and it should be connected with the HVAC system, Material of construction SS-304 with Glass windows on the doors along with lock and key facility on the door. Two Partition and Numbers of Shelves for Aprons Storage.

16	<b>DUSTBINS (SS)</b>
	Provision for clean room dustbin made up of SS 304, electro polished, cover should be operated by Foot pedal, round in shape, size - H 15 inch X 10 inch Dia
17	<b>Clean room Chair</b>
	As per the norms of the clean room application, ESD protection, should have leg support, height adjustable, castors on the legs, MOC – Stainless steel and cushion on sitting and back support without hand support, should have proper stitching of the cushion and back outer cover (Stapler or pasting of the outer cover is not accepted)
18	<b>Emergency Shower along with Eye wash</b>
	Floor Mounted Emergency shower with eye wash- Galvanized steel piping. Brass fittings and Elbows with anti-corrosive polyamide 11 coating, high-visibility yellow plastic. WATER INLET: 1 1/4" PRESSURE: Rec. 2 bar, Min. 1,5 Max. 8 bar. SHOWER -Showerhead in plastic ABS. Flow rate regulated at 110 l/min OPERATION: Pull handle EYEWASH -Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover. Eyewash assembly in plastic ABS. Eyewash bowl in plastic ABS, Flow rate regulated at 22 l/mi, OPERATION: Push handle, Dimensions: 75x20x25cm (Should follow the ANSI disability friendly standards)

### **C. Air Handling Units (Double Skin) (High Static)**

#### **1. General**

The air handling units shall be complete in all respects and shall generally comply with the specifications as given in the following paragraphs.

- **Air Handling units**

#### **1. Special high static type**

(i) The air handling units shall be double skin, sectional, special high static draw through type. It shall include suitable filter section, humidifier section, coil section, fan and motor section, in suitable horizontal configuration with mixing box (if special filter section is mounted on top of AHU).

(ii) A separate special filter section shall be provided for housing micro vee and high efficiency filters.

(iii) This filter section should be suitable for placing either after the fan section of the AHU or on top of the AHU (as per space availability in AHU room).

(iv) The top mounted filter section shall have plenum for entry of air from the fan section of the AHU and flanges to connect the supply air duct, at the outlet.

(v) The front mounted filter section should have enough space before micro vee filter for proper air entry and flanges to connect supply air duct, at the outlet.

## **2.Fan Assembly & Accessories**

Fans shall be backward curved plug fan with aerofoil design blades so as to give maximum efficiency for given duty condition. The entire fan with casing will be certified by a reputed, internationally acclaimed certifying body which will be a 3rd party like Euro vent or ARI or AMCA and the entire Fan + Motor assembly will be balanced at supplier's works before dispatch. Fans driven by variable frequency drive shall be backward inclined irrespective of static pressure value. Fans shall be selected for minimum efficiency of 70%. Fan array with multiple fans shall be used for capacities more than 15000 CMH. Plug fan in fan array shall have individual VFDs for every motor fan set. Fan motor assembly shall be statically and dynamically balanced as per relevant ISO/AMCA/EUROVENT standard. Certified computerized selection for AHU shall be with fan selection. Motors shall be mounted inside the AHU casing on slide rails for alignment and be totally enclosed, fan cooled with class 'F' insulation. Both fan and motor assemblies shall be mounted on powder coated MS/galvanized steel (depending on size) base frame. Heavy duty anti-vibration mounts shall be provided for isolating the unit casing. Flame retardant, waterproof silicone rubber impregnated flexible connection shall be provided at the fan discharge.

## **3. Cooling /Heating coil**

Chilled water coils shall have 12.5 to 15 mm dia (O.D) tubes minimum 0.41 mm thick with sine wave aluminium fins firmly bonded to copper tubes assembled in zinc coated steel frame. Face and surface areas shall be such as to ensure rated capacity from each unit and such that the air velocity across the coil shall not exceed 150 meters per minute. The coil shall be pitched in the unit casing for proper drainage. The coil shall have suitable size header with chilled water supply & return connections protruding out of AHU casing by minimum 150 mm. Each coil shall be factory-tested at 21 kg per sq. m air pressure under water. Tube shall be mechanically expanded for minimum thermal contact resistance with fins. Fin spacing shall be 4 - 5 fins per cm. Water pressure drop in coil shall not exceed 10 PSIG. All public area AHUs shall be provided with minimum 6 Row Cooling Coil. All TFA AHU's shall be provided with minimum 8 row cooling coil. Reheat coil may be provided if indicated in Schedule of Quantities.

Coil performance shall be certified by a third party like Euro vent/AHRI.

## **4. Filter**

Each unit shall be provided with a factory assembled filter section containing washable synthetic type air filters having GI frame. Filter media and frame shall be rust proof and corrosion resistant. The filter shall have minimum 90% efficiency down to 10 microns. The media shall be supported with HDP mesh on one side and aluminium mesh on other side. Filter banks shall be easily accessible and designed for easy withdrawal and renewal of filter cells. Filter framework shall be fully sealed and constructed from galvanized steel. For green buildings, AHU's shall also be provided with MERV-13 filters, if the project is opting for credit EQ5. Filter by pass rating shall be of grade F9 as per EN standards.

- **Drain pan**

- The drain pan shall be sandwiched type with S.S. sheets on top and GI sheet on the bottom complete with PUF injected tray.
- The drain pan shall be a minimum of 25 mm deep. Drain outlet shall be of S.S. and of 25 mm dia.

## **5. Coil and filter Section**

The cooling coils, special and standard filters, etc., shall all be housed in a separate section of suitable size and length. The inspection doors, shall have double synthetic rubber seals doors and locking arrangements. The gaps between filter frames and housing shall have synthetic rubber packing, to eliminate any air leakage. All filter frame shall be epoxy painted. The flat filter section shall be suitable for mounting filters vertically.

## **6. AHU Enclosure/Section**

- The AHU enclosure shall be double skin design with the main framework made of structural extruded aluminium section.
- The panels shall be double sandwich type with 0.60 mm pre-coated galvanised sheet on the outside and 0.80 mm aluminium sheet on the inside. The insulation shall be 25 mm thick foam injected polyurethane foam.
- The opening for access doors and gaps between sections shall be provided with the neoprene rubber T-gaskets fixed in grooves in the extruded sections.
- The sandwich panels shall be fixed to the frame work with self-tapping stainless steel screws and both ends of the screw shall be provided with rubber caps.
- The access door to fan section is to be provided with a switch to shut the fan when the door is open.

## **7. Special Filter Section**

- A factory fabricated filter section shall be provided for housing high efficiency Pre and Micro vee filters.
- The housing shall be fabricated from same material and sections as the AHU enclosure section.
- The enclosure shall be sized to accommodate the Pre and high efficiency micro vee filters. Necessary frames for mounting the two types of filter shall be part of the filter housing. The inspection doors, shall have double synthetic rubber seals doors and locking arrangements. The gaps between filter frames and housing shall have synthetic rubber packing, to eliminate any air leakage. All filter frame shall be epoxy painted from inside and outside. The PRE filter and Micro vee filter section shall have provision for fixing a portable inclined manometer for taking filter pressure drop readings. It shall be complete with frame work of suitable sizes to mount the filters.
- The filter section shall be either be fitted either after the fan section or on top of the AHU fan sections.
- An additional plenum section of similar construction shall be provided both in AHU & filter section, if the filter section is mounted on Top of the AHU.

## **8. Insulation**

The panels of Double Skin AHU'S shall be sandwiched with 25 mm thick polyurethane foam insulation of 40 kg. /cm<sup>3</sup>. density having a K value of 0.014 Kcal/mhroC.

## **9. Fan Motor & Starter**

- The fan motor shall be totally enclosed fan cooled conforming to EFF-1 high efficiency as per I.S. 12615-2004 (Rev.I) and tolerance as per I.S. 325-1996 and conforming to specifications in Control panel, motors & switchgear section.
- The starter shall either be DOL or star delta type to suit the motor rating and conforming to specification under Control panel, motor & switchgears section.

## **11.Fresh air controls**

An adjustable damper of G.I. sheet along with bird screen, air inlet louvers and air filters shall be provided in the wall of AHU room, for fresh air entry. (As part of AHU price)

11. Flexible connection between the fan outlet and duct.

12. Vibration isolators of 90% efficiency.

13. Each unit shall have the following items:

- Drain line from the unit up to floor trap.
- Testing: The air handling unit shall be tested to measure air quantity and coil performance by Measuring temperature difference, water flow rate using balancing valve and then calculating the capacity.
- The air velocity across the cooling coil shall not exceed 550 F.P.M. (2.79 m per sec.).
- The fan outlet velocity shall not exceed 2000 FPM. (10.17 m/sec.) subject to Fan Noise Level not exceeding 75dbas. The air velocity across the filters shall not exceed 500 FPM (2.5 m/sec.)

## **Air Filters**

### **General**

- The various types of filters to be used in the different systems to achieve the required degree of air purification and the HEPA filter holder, shall confirm to the following specifications:

## **HEPA (Absolute)Filters**

- The point to point scanned and Di-Octyl Phthalate (D.O.P) tested flange type HEPA filters shall have an efficiency of 99.99% for a particle size of 0.3 microns. Flange width not to exceed 20mm.
- Each filter shall be sealed from all sides in aluminium filter frame and joints sealed with ductile epoxy resin, having impact strength 2.5-4.0 kg/cm<sup>2</sup> & modulus of elasticity strength 750-780 kg/cm<sup>2</sup>.
- The filtering media shall be of micro fibre glass paper to provide the required filtering efficiency.
- Each filter shall carry a test report from suitable agency, certifying the efficiency of the filter according to D.O.P. test.
- The initial pressure drop (IPD) should be less than 15 MM WG at rated CFM. Supplier shall indicate the pressure drop in choked condition.

## **High Efficiency Filters (Microwave Filters)**

- a. Micro vee filters in flange type construction shall be made out of polyester/ polypropylene media shall have an efficiency greater than 98% down to 5 micron or less particle size according to D.O.P. Test method.
- b. The filter element shall be housed in aluminium anodised frame. Media shall be supported on one side with HDPE mesh & another side with aluminium mesh.
- c. The media and HDPE shall be stitched together. Edge of the filter shall be duly protected with polyester beading. Number of folds shall be 11 folds/RFT., across actual face area of the frame.
- d. The initial pressure drop shall be in between 6.5-8.5 MM WG and it should not exceed 20 MM WG.
- e. The filters should be cleanable and washable.
- f. The filter element should be properly sealed with frame with the help of epoxy so that there is absolutely no air bypass after Nos. of washes. Foam between folds & frame shall not be used.
- g. Minimum 3 No. Aluminium anodised combs shall be inserted for keeping the Plates separated from each other.

## **PreFilters (Activated Carbon Filters)**

Activated carbon filters should be supplied to control the VOC level and it should have the following technical specifications

CTC Capacity (NLT 30)

Total Surface area (B.E.T.) m<sup>2</sup>/g (NLT-900)

Bulk density kg/m<sup>3</sup> (NLT-336)

Ball Pan hardness (NLT 80.0)



Particle Size , 4mm 90 mass%

Moisture NMT 5%

Iodine Value (mg/ml) (NLT-1000)

Rested Period (NLT 5 year)

Supporting test reports should be enclosed.

## **Filter Mounts**

- h. The various types of filters shall be mounted in suitable holding frame sized to suit the filterselection.
- i. The frame shall be of Aluminium sheet of suitable thickness formed to make a rigid mountingstructure.
- j. Synthetic rubber gaskets shall be provided to make the frame leal proof and far sealing all joints.
- k. Suitable locks shall be provided to hold each filter in position.

## **E. Control Panel, Motors and Switchgears**

### **1. General**

- a. The motor and switchgears required for various items shall generally be as per specifications given below. All electric motors shall be suitable for 3 phases, 50 Hz, 415 + 10% - 15% Volts A.C. Supply.

## **L.T. Electric Panel boards**

- b. The main L.T. Panel board shall be extendible type on both sides, having in it all switches, starters & accessories and shall be completely factory prewired. It shall be suitable for voltage systems upto 500 volts, 3 phase, 50 Hz, 4 wire supply capable of functioning satisfactorily in temperatures of 45<sup>0</sup>C and rupturing capacity not below 31 MVA at 415Volts.
- c. The boards shall be fabricated from 2.0 mm thick, cold rolled M.S. Sheets. The front opening door panels shall be from 2 mm thick, cold rolled M.S. Sheets. Suitable stiffeners shall be used in fabricating the housing. All steel members shall first be degreased, then de-scaled using dilute sulphuric acid and a suitable phosphate process then the boards shall be given 2 coats of red oxide primer with powder coated finish in siemens grey colour. The switch board shall be dust proof and vermin proof. The panel shall generally conform to IS 8623 (full conformity not called for). It shall be flush in front and back. The panel shall have front and rear access.
- d. Cable compartment of adequate size shall be provided in the main distribution board for easy

termination of all incoming and outgoing cables entering from bottom or top. Adequate support shall be provided in cable compartment to support cables. All incoming and outgoing switch terminals shall be brought out to terminal blocks in cable compartments.

- e. Items such as ammeters, switches etc. shall be located close to the corresponding switchgear and otherwise all items shall be arranged in a neat symmetrical pattern.
- f. The doors of the switch compartments and cable access shall be hinged type and that of bus bars shall be fixed type.
- g. The knobs of the hinged doors shall be provided with a locking arrangement to prevent them from falling down when they are unscrewed for opening the doors.
- h. All panel doors shall have synthetic rubber gaskets with good ageing, compression and resistance characteristics.
- i. All the breakers shall be interlocked with door so that the unit cannot be closed unless the unit door is closed. The interlock shall also prevent opening the unit door unless the switch/breaker is in OFF position.
- j. Defeat arrangement shall be provided for deliberate inspection of switch/breaker without having to switch OFF the unit.
- k. All the units pertaining to a motor shall be incorporated in one cabinet. i.e. switch, starter, CTS ammeter, current operated MPRD-2 single phasing preventer, indicating lamps etc.
- l. A danger notice plate of 200 mm x 150 mm of mild steel at least 2 mm thick vitreous enamelled white on both sides and with inscriptions in signal red colour on front side shall be provided on the panel board.
- m. Every starter/contactors etc. shall be controlled by an isolating device of adequate rating as listed later.
- n. A voltmeter and ammeter shall be provided to indicate incoming voltage and along with rotary phase selection switches.
- o. Ammeters shall be provided for incoming current to all motors of 10 HP (7.5 KW) and higher ratings.
  - i. Ammeters for all the motors upto 50 HP (37.5 KW) shall be direct reading type.
  - ii. Ammeters for motors of 50 HP (37.5 KW) and above shall be operated with a selector switch.
- p. LED type indicating lamps in approved colour shall be provided for the 3 phases and for status of all controlled devices.
- q. All the switchgear shall be earthed to the earth bus by the A.C./electrical contractor.
- r. Earth shall be extended for each compartment to the door by means of a flexible, insulated copper conductor with crimped legs on either side.
  - i. Each panel shall be provided with suitable size of earth bus at the rear of the panel and two earth terminals on either side.
  - ii. Suitable printed PVC ferrules shall be provided for all the conductors for easy identification.
- s. Etched plastic nameplates shall be provided for all the incoming, outgoing switchgears, ammeter, voltmeter etc.
- t. All the control and auxiliary wiring shall be carried out with PVC insulated copper conductor of proper colour code.

- u. The power wiring from the circuit/air breakers to the starters shall be carried out using colour coded; PVC insulated copper conductors crimped with lugs.
- v. The outgoing wires of starters shall also be PVC insulated colour coded copper conductor crimped with lugs and terminated on a terminal block of proper rating.

### **Important Note:-**

- w. **All Panel fabrication drawings shall be get approved, before the start of the fabrication work.**

### **BusBars**

- x. The Bus Bar shall be mounted in a separate compartment in the Panel Board.
- y. The Bus Bars and interconnections shall be of aluminium strips unless otherwise specified.
- z. The Bus Bar shall have rectangular cross - section of  $(1) \text{ mm}^2$  per Amp. rating for full load current in the 3 phases as well as for neutral and should be extendable, if mounted horizontally.
- aa. The Bus Bars shall be insulated with heat shrink sleeves and colour coated tapes. They should be supported on supports made of glass fibre reinforced thermosetting compound at regular intervals sufficient to withstand the force of any short circuit.

### **Circuit Breakers**

- bb. **The panel and the bus bars plus outgoing of all devices shall be protected by different types of circuit breakers as described below and conforming to specification as given later on:**

S.No.	Type	Upto 40 Amp.	63 A	80 to 200 A	Above 200 to 400 A	Above 630 A
1.	Incoming	MCB	MCCB	MCCB	MCCB	ACB
2.	Outgoing	MCB	MCB	MCCB	MCCB	ACB

### **Air Circuit Breaker(ACB)**

- i. The air Circuit Breakers shall be Draw out type conforming to I.S: 13947 (Part 2) 1993.
- ii. The ACB shall be complete with solid state overload, short circuit and earth fault protection with adjustable settings.
- iii. Each ACB shall have 4 'NO' and 4 'NC' potential free auxiliary contacts, in addition to those required for its internal operating mechanisms.
- iv. There shall be suitable indicators for OPEN/CLOSE/SERVICE/TEST and Spring charged positions.
- v. It shall be possible to close the door in Test position.

- vi. Castle Key and/or other interlocking devices shall be provided as required.

### **Molded Case Circuit Breakers(MCCB)**

- vii. The MCCB shall have TP + NL and be suitable for simultaneous manual opening and closing with rotary operating handle.
- viii. The ON/OFF/TRIP positions shall be clearly marked and easily visible to an operator and conform to latest IS:13947-1993.
- ix. There shall be fixed/adjustable tripping devices with inverse time characteristics for overload and short circuit protection.
- x. Suitable Interlocking mechanism shall be provided, where required.

### **Miniature Circuit Breakers(MCB)**

- xi. The MCB shall have quick make/break contacts with a heat resistant housing, having high Impact strength and conform to IS8828-1996.
- xii. The contacts shall be of silver nickel alloy.
- xiii. The MCB shall permit over load for short duration, as required for Inductive loads and the breaking capacity shall not be less than 10 KV at 415 Volt A.C.
- xiv. It shall be equipped with overload and short circuit protection devices and shall be suitable for DIN mounting.

### **Isolator Switches**

- xv. Isolator switches are to be provided for equipment located outdoors or for those located in separate enclosure, other than that Nos. having the Electric Panel.
- xvi. The Isolator Switch should be of Rotary Load Break type with a weather proof sheet steel enclosure. Its rating shall be same as the outgoing device in the Electric Panel.

### **Contactor**

cc. **All non inductive loads shall be provided with suitable sized magnetic contactors.**

dd. The contactors shall have 3/4 poles plus a minimum 2 'NO' and 2 'NC' contacts. All contacts shall be of solid silver.

ee. The No volt coil shall generally be suitable for 220 Volts + 10%, - 15% (wide band type) A.C. supply except when specified or required otherwise.

## Starters

- ff. The type of starters to be provided for the motors shall be as follows:
  - i. SquirrelCagemotors :upto 7.5 HP(5.6KW)Direct on Line Type
  - ii. SquirrelCagemotors: Above 7.5 HP(5.6 KW)Automatic Star Delta Type
  - iii. Compressor motor: Above 300 HP(225 KW) Automatic Auto Transformers (where specified)
  - iv. All starters shall have auxiliary contacts for interlocking different machines, connecting indicating lights, controls, alarms,etc.
  - v. All starters shall be provided with separate single phasing preventers.

## Direct On-Line Starters

- vi. These starters shall have heavy duty air break contactors of suitable rating.
- vii. These starters shall be complete with adjustable overload relays on all three phases, single phase preventing device and under voltage release. The starters should be "hand reset" type.

**The "No Volt Coil " of these starters shall be 220 Volts + 10% - 15% (wide band type) whenever any controls on safety devices are connected in the starters circuits, otherwise standard 415 volts coils may be used. There shall be ON-OFF push button for each starter unless remote operation of the starter is required. Automatic Star Delta Starters**

- viii. These starters shall have heavy duty air break contactors of suitable ratings along with an adjustable timer to automatically switchthe motor connections from star to delta connections.
- ix. Each starter shall be complete with adjustable overload relays on all three phases and under voltage release. The starters should be "hand reset" type.
- x. The "No Volt Coil" shall be of 220 Volts + 10% - 15% (wide band type) rating wherever any controls of safety device are connected in the starter circuit, otherwise standing 415 volts coils may be used. There shall be ON-OFF push button for each starter unless remote operation of the starter is required.

## Automatic Auto –TransformerStarter

- xi. These starters will be oil immersed, each one fixed on a separate panel.
- xii. Necessary devices shall be provided for the automatic tap setting of the starter.
- xiii. The starter should have "No Volt Coil"wide band type circuit of 220 volts to be connected to control circuits.
  - gg. The Motor starter shall be in accordance with IS 1882. The starter shall be totally enclosed metal clad, dust and vermin proof construction. The starter shall be ofcontinuous rating.
  - hh. Contactors shall have the number of poles as required for appropriate duty. The making

capacity of the starters shall be suitable for AC 3 duty.

## **Panel Accessories**

- ii. All Voltmeters and Ammeters as specified shall be square of 96 mm x 96 mm, flush mounting type.
- jj. The Indicating Lamps shall be of LED type with Low Watt Power. The Lamps shall have translucent covers of following colours.
  - i. Red/Yellow/Blue for phase light.
  - ii. Green/Amber for ON/OFF indication.
  - iii. Concealed door lock.

## **Subsidiary Panels (With Single Switch)**

- kk. Subsidiary panels shall be provided for equipment located away from the plant room, such as air handling units, blower etc.
- ll. The construction of this panel should be similar to the main panel and shall have all related accessories, except when specified.
- mm. The sub panel shall be wall hung type and as compact as possible.
- nn. Panel fabrication drawings shall be got approved before fabrication.

## **Squirrel Cage Motors**

- oo. The squirrel cage motors shall be either screen protected or totally enclosed fan cooled, depending on the application and as stated in "schedule of equipment". All motors shall conform to IS 325/1978, IS: 1231 for foot mounted motors and IS: 2223 for flange mounted motors.
- pp. The stator windings shall be with class 'B' insulation.
- qq. Motors shall be provided with ball/ roller bearings. Bearings shall have ample capacity to deal with any axial thrust. Suitable grease nipple shall be provided for re-greasing the bearings.
- rr. Motors shall be provided with a cable box for terminating the PVC insulated, PVC sheathed armoured aluminium cables.

## **Installation of Motor**

- ss. Installation of the motor shall be in accordance with IS-900.
- tt. The motor along with its driven machine or equipment shall be provided with vibration isolation arrangement. Motors shall generally be provided with slide rails fixed to the base units nuts and bolts to facilitate belt installation and subsequent belt tension.

- uu. Motors shall be wired as per the detailed specifications and drawings all the motor frame shall be earthed with 2 Nos. of earthing conductors.
- vv. Motors shall be tested at works in accordance with the relevant Indian standard specifications and test certificates shall be furnished intriplicate.

**Note:Rubber mats of 1100 volts capacity shall be laid in front of panel as per site requirement and no extra shall be paid.**

## Painting

ww. **All sheet steel work shall undergo a multi tank process of degreasing, pickling in acid, cold rinsing, phosphating, passivating and then sprayed with a high corrosion resistant primer. The primer shall be baked in oven. The finishing treatment shall be by application of powder coated paint of approved shade and stoved.**

## **F. HVAC- DUCTING**

### 1. **Manual Fabricated Ductwork**

a. The ducts shall be fabricated from galvanized steel sheets class VIII 120gr/Sqm conforming to ISS:277-1962 (revised) or aluminium sheets conforming to ISS:737-1955 (wherever aluminium ducts are specified).

b. All duct work, sheet metal thickness and fabrication unless otherwise directed, shall strictly meet requirements, as described in IS:655-1963 with amendment-I (1971 edition)

c. **The thickness of the sheet shall be as follows :-**

Duct	Thickness	er Size	For Rolastar, Zeco duct and flanges	For Techno Fabriduct & Ducto-Fab	with GI tie rods of following sizes	Angle

i	Upto 750 mm	0.63 mm	3/8"	Fabricated out of G.I. sheet of 24 gauge at every 1.2 m internal.	The flanges shall be made out of the same duct sheet and all the four corner shall be fitted for fitting the bolt	Cross tie rods to be fitted with at least 10 mm dia threaded G.I. as per SMACNA rod for each piece of duct	25x25x3 mm
ii	751 mm to 1000 mm	0.80 mm	3/8"	E-24 type flange, shall be fabricated out of 24 G sheet at every 1.2 m internal.			25x25x3 mm
iii	1001 mm to 1500 mm	0.80 mm	5/8"	E-22 type flange, shall be fabricated out of 22 G sheet at every 1.2 m internal.			40x40x5 mm
iv	1501 mm to 2250 mm	1.00 mm	5/8"	J-16 type flange, shall be fabricated out of 16G sheet at every 1.2 m internal.			40x40x6 mm
v	2251 mm and above	1.25 mm	5/8"	J-16 type flange, shall be fabricated out of 16G sheet at every 1.2 m internal.			50x50x6 mm with MS rods of 12 mm dia.

- The gauges, joints and bracings for sheet metal duct work shall further conform to the provisions as shown on the drawings.
- Ducts larger than 600 MM shall be cross broken, duct sections upto 1200 MM length may be used with bracing angles omitted.
- Changes in section of duct work shall be affected by tapering the ducts with as long a taper as possible. All branches shall be taken off at not more than 45 DEG. Angle from the axis of the main duct unless otherwise approved by the Engineer-In-Charge.

All ducts shall be supported from the ceiling/slab by means of M.S. Rods of 10 MM (3/8") DIA with M.S. Angle at the bottom. The rods shall be anchored to

**a. R.C. Slab using metallic expansion fasteners.**

## **Factory Fabricated DuctWork**

### **Material**

- All ducting shall be fabricated of LFQ (Lock Forming Quality) grade prime G.I. raw material furnished with accompanying Mill test Certificates. Galvanizing shall be of 120gms/sq.m. (total coating on bothsides).



- ii. In addition, if deemed necessary, samples of raw material, selected at random by owner's site representative shall be subject to approval and tested for thickness and zinc coating at contractor's expense.
- iii. The G.I. raw material should be used in coil-form (instead of sheets) so as to limit the longitudinal joints at the edges only, irrespective of cross-section dimensions.

## **Governing Standards**

Unless otherwise specified here, the construction, erection, testing and performance of the ducting system shall conform to the SMACNA-1995 standards ("HVAC Duct Construction Standards-Metal and Flexible-Second Edition-1995" SMACNA)

## **Duct Connectors and Accessories**

All transverse duct connectors (flanges/cleats) and accessories/related hardware such as support system shall be zinc-coated (galvanized).

## **Fabrication Standards**

- iv. All ductwork including straight sections, tapers, elbows, branches, show pieces, collars, terminal boxes and other transformation pieces must *be Rolastar, Ducto- Fab ,Zeco* Equivalency will require fabrication by utilizing the following machines and processes to provide the requisite quality of ducts and speed of supply.
- v. Coil lines to ensure location of longitudinal seams at corners/folded edges only to obtain the required duct rigidity and low leakage characteristics. No longitudinal seams permitted along any side of the duct.
- vi. All ducts, transformation pieces and fittings shall be made on CNC profile cutters for required accuracy of dimensions, location and dimensions of notches at the folding lines.
- vii. All edges shall be machined treated using lock-formers and roller for funning up edges.
- viii. Sealant dispensing equipment shall be used for applying built-in sealant in Pittsburgh lock where sealing of longitudinal joints is specified.

## **Selection of G.I. Gauge and Transverse Connectors**

- ix. Duct Construction shall be in compliance with 1" (250 Pa) w.g. static norms as per SMACNA.
- x. All transverse connectors shall be the Rolamate 4-bolt slip-on flange system, *Techno Fab, Ducto-Fab* & Zeco imported makes of similar 4-bolt systems with built-in sealant, if any. To avoid any leakage additional sealant shall be used.
- xi. The specific class of transverse connector and duct gauge for a given duct dimensions shall be 1" (250 Pa) pressure class.
- xii. Non-toxic, AC-applications grade P.E. or PVC gasketing shall be provided between all mating flanged joints. Gasket sizes shall conform to flange manufacturer specification.

## **Duct Construction**

- xiii. Factory Fabricated ducts shall have the thickness of the sheet as follows:
  - xiv. The fabricated duct dimensions shall be as per approved drawings and all connecting sections shall be dimensionally matched to avoid any gaps.
  - xv. Dimensional Tolerances: All fabricated dimensions shall be within  $\pm 1.0$  mm of specified dimension. To obtain required perpendicular, permissible diagonal tolerances shall be  $\pm 1.0$  mm perimeter.
  - xvi. Each duct piece shall be identified by colour coded sticker which shall indicate specific part numbers, job name, drawing number, duct sizes and gauge.
  - xvii. Ducts shall be straight and smooth on the inside. Longitudinal seams shall be airtight and at corners only, which shall be either Pittsburgh or Snap Button Punch as per SMACNA practice, to ensure air tightness.
  - xviii. Changes in dimensions and shape of ducts shall be gradual (between 1:4 and 1:7). Turning vanes or air splitters shall be installed in all bends and duct collars designed to permit the air to make the turn without appreciable turbulence.
  - xix. Plenums shall be shop/factory fabricated panel type and assembled at site.
  - xx. The gauges, joints and bracings for sheet metal duct work shall further conform to the provisions as shown on the drawings.
  - xxi. Ducts larger than 600 MM shall be cross braced, duct sections up to 1200 MM length may be used with bracing angles omitted.

- xxii. Changes in section of duct work shall be affected by tapering the ducts with as long a taper as possible. All branches shall be taken off at not more than 45 DEG. Angle from the axis of the main duct unless otherwise approved by the Engineer-In-Charge.
- xxiii. For each drawing, all supply of ductwork must be accompanied by computer- generated detailed bill of material indicating all relevant duct sizes, dimensions and quantities. In addition, summary sheets are also to be provided showing duct areas by gauge and duct size range as applicable.
- xxiv. Measurement sheet covering each fabricated duct piece showing dimensions and external surface area along with summary of external surface area of duct gauge-wise.
- xxv. All duct pieces shall have a part number, corresponding to the serial number assigned to it in the measurement sheet. The above system shall ensure speedy and proper site measurement, verification and approvals.
- xxvi. After duct installation, a part of duct section (approximately 5% of total ductwork) may be selected at random and tested for leakage. The procedure for leak testing should be followed as per SMACNA- "HVAC Air Duct Leakage Test Manual: (First Edition).

## **D. Installations**

- During the construction, the contractor shall temporarily close duct openings with sheet metal covers to prevent debris entering ducts and to maintain opening straight and square, as per direction of Engineer-In-Charge.
- Great care should be taken to ensure that the duct work does not extend outside and beyond height limits as noted on the drawings.
- All duct work shall be of high quality approved galvanized sheet steel guaranteed not to crack or peel on bending or fabrication of ducts. All joints shall bear tight and shall be made in the direction of airflow.
- **The ducts shall be re-inforced with structured members where necessary, and must be secured in place so as to avoid vibration of the duct on its support.**
- All air turns of 45 degrees or more shall include curved metal blades or vanes arranged so as to permit the air to make the abrupt turns without an appreciable turbulence. Turning vanes shall be securely fastened to prevent noise or vibration.
- The duct work shall be varied in shape and position to fit actual conditions at building site. All changes shall be subjected to the approval of the Engineer-In- Charge. The

contractor shall verify all measurements at site and shall notify

- **the Engineer-In-Charge of any difficulty in carrying out his work before fabrication.**
- Sponge rubber or approved equal gaskets of 6 MM maximum thickness shall be installed between duct flanges as well as between all connections of sheet metal ducts to walls, floor columns, heater casings and filter casings. Sheet metal connections shall be made to walls and floors by means of wooden member anchored to the building structure with anchor bolts and with the sheet screwed to them.
- Flanges bracings and supports are to be black, mild steel and are to be painted with rust proof primer on all surfaces before erection. Accessories such as damper blades and access panels are to be of materials of appropriate thickness and the finish similar to the adjacent ducting, as specified.
- Joints, seams, sleeves, splitters, branches, takeoffs and supports are to be as per duct details as specified, or as decided by Engineer-In-Charge.
- Joints requiring bolting or riveting may be fixed by Hexagon nuts and bolts, stove bolts or buck bolts, rivets or closed centre top rivets or spot welding. Self tapping screws must not be used. All jointing material must have a finish such as cadmium plating or Galvanized as appropriate.
- Fire retarding flexible joints is to be fitted to the suction and delivery of all fans. The material is to be normally double heavy canvass or as directed by Engineer- In-Charge. On all circular spigots the flexible materials are to be screwed or clip band with adjustable screws or toggle fitting. For rectangular ducts the material is to be flanged and bolted with a backing flat or bolted to mating flange with backing flat.
- The flexible joints are to be not less than 75 MM and not more than 250 MM between faces.
- The duct work should be carried out in a manner and at such time as not to hinder or delay the work of the other agencies especially the boxing or false ceiling contractors.
- Duct passing through brick or masonry, wooden frame work shall be provided within the opening. Crossing duct shall have heavy flanges, collars on each side of wooden frame to make the duct leak proof.
- At the junction of each branch duct with main duct and split of main duct, volume dampers must be provided. Dampers shall be two gauges heavier than the gauge of the large duct and shall be rigid in construction.

- The volume dampers shall be of an approved type, lever operated and completed with locking devices which will permit the dampers to be adjusted and locked in any positions and clearly indicating the damper position.
- The dampers shall be of splitter, butterfly or louver type. The damper blade shall not be less than 1.25 MM (18) Gauge, reinforced with 25 MM angles 3 MM thick along any unsupported side longer than 250 MM. Angles shall not interfere with the operation of dampers, nor cause any turbulence.
- Automatic and manual volume opposed blade dampers shall be completed with frames and bronze bearings as per drawings. Dampers and frames shall be constructed of 1.6 MM steel sheets and blades shall not be over 225 MM wide. The dampers for fresh air inlet shall additionally be provided with fly mesh screen, on the outside, of 0.8 MM thickness with fine mesh.
- Wherever require for system balancing, a volume balancing opposed blade damper with quadrant and thumb screw lock shall be provided.
- After completion of the duct work, dampers are to be adjusted and set to deliver air flow as specified on the drawings.
- Automatic fire dampers shall be provided wherever shown on the drawings. The damper shall be multi blade louver type. The blades should remain in the air stream in open position and shall be constructed with minimum 1.8 MM thick galvanised sheets. The frame shall be of 1.6 MM thickness. Other materials shall include locking device, motorized actuator, control panel to trip AHU motor etc.
- **The fire dampers shall be capable of operating automatically on receiving signal from a fire alarm panel. All control wiring shall be provided between fire damper and electric panel.**
- A hinged and gasket access panel measuring at least 450 MM x 450 MM shall be provided on duct work before each reheat coil and at each control device that may be located inside the ductwork.

## Miscellaneous

- All duct work joints are to be true right angle and with all sharp edges removed.

- Sponge rubber gaskets also to be provided behind the flange of all grilles.
- Each shoot from the duct, leading to a grille, shall be provided with an air deflector to divert the air into the grille through the shoot.
- Diverting vanes must be provided at the bends exceeding 600 MM and at branches connected into the main duct without a neck.
- Proper hangers and supports should be provided to hold the duct rigidly, to keep them straight and to avoid vibrations. Additional supports are to be provided where required for rigidity or as directed by Engineer -In-Charge.
- The ducts should be routed directly with a minimum of directional change.
- The duct work shall be provided with additional supports/hangers, wherever required or as directed by the Engineer-In-Charge, at no extra cost.
- All angle iron flanges to be welded electrically and holes to be drilled.
- All the angle iron flanges to be connected to the GSS ducts by rivets at 100 MM centres.
- All the flanged joints, to have a sponge rubber packing stuck to the flanges with suitable adhesive.
- The G.S.S. ducts should be lapped 6 MM across the flanges.
- The ducts should be supported by approved type supports at a distance not exceeding 2.0 Metres.

### **Factory Fabricated Plenum for D.G. Air washer (Where ever required)**

- The D.G. supply air blowers shall be installed in a G.I. sheet steel fabricated panel of section not exceeding available space complete with structural support, fan mounting frame work inspection door etc.
- The plenum would be made up from 50 mm x 50mm x 6 mm angle iron frame with bracings & supports, bracing shall be of 50x50x6 mm M.S. angle and support shall be of MS channel min. 100x50x6mm.

- The plenum frame shall be covered with 16 gauge G.I. sheet from inside and bolted /screwed to the outer angle iron frame casing with 3 mm thick synthetic rubber gasket between them. It would acoustically lined from inside with 25 mm thick cross linked polyethylene sheet having K value of not less than 0.035 Kcal./M.hr °C and density not less than 25Kg./m<sup>3</sup>.
- The lining material should be fire resistant type.
- The plenum sheet should be provided with stiffeners of iron angle at a spacing of not more than 1m from outside and be properly welded to the main outer frame. The stiffener should be placed such a way so as to provide space for grilles.
- The plenum should have proper provisions for hanging to the R.C.C. slab above using M.S. angle cleats.
- All M.S. parts will be coated with 2 coats of lead oxide primer and 2 coats of synthetic enamel paint. All G.I. panel will be provided with 2 coats of synthetic enamel paint from outside.
- The whole plenum shall be structurally rigid and vibration free, in case extra supports are required the contractors shall provide these at no extra cost.

## **G. Standard Grilles**

- The supply and return air grilles shall be fabricated from extruded aluminium sections. The supply air grilles shall have single/double louvers. The front horizontal louvers shall be of extruded section, fixed/adjustable type. The rear vertical louvers where required shall be of aluminium extruded sections and adjustable type. The return air grille shall have single horizontal extruded section fixed louvers. The grilles may or may not be with an outer frame.
- The damper blades shall also be of extruded aluminium sections. The grill flange shall be fabricated out of aluminium extruded section. Grilles longer than 450 MM shall have intermediate supports for the horizontal louvers.

## **H. Diffusers**

- The ceiling type square diffusers shall be of aluminium extruded sections with flush or step down face, as specified with fixed pattern and neck.

- All supply diffusers shall be provided with extruded aluminium dampers, with arrangement for adjustment from the bottom.
- The slot diffusers shall be of aluminium extruded sections with diffusion plate and sliding damper.

## **I. Linear Diffusers/Grilles**

- The linear diffusers/grilles shall be fabricated from Aluminium extruded sections.
- The diffusion blades shall be extruded, flush mounted type with single or double direction air flow.
- The frame shall be of aluminium extruded section and shall hold the louvers tightly in fixed position.
- The dampers as described under grilles shall be provided wherever specified.

## **J. Laminar Flow Diffusers**

- The laminar flow diffusers shall be fabricated from aluminium sheets and shall include supply plenum, perforated face, and deflector plate and air inlet collar.
- The diffusion face shall be fabricated from aluminium sheet of 1.25 mm thickness double folded at the edges and pressed with mechanical perforations (min. 60% free area) of suitable size and at suitable spacing to provide the rated air quantity. The face plate shall be hinged type with locking arrangement.
- The supply air plenum shall be fabricated from 1.25 mm thick aluminium sheets with inlet collar and folded edges to support the hinged diffusion face.
- A deflector plate of 1.25 mm aluminium sheet shall be provided between inlet collar and diffusion face and fixed with suitable supports.
- The dampers shall be fabricated from extruded aluminium sections and shaped to form airtight joints. The damper shall be key operated from the face of the diffuser.



## **K. Exhaust Grilles**

- The exhaust grilles shall be fabricated from aluminium extruded sections.
- The exhaust grilles shall be horizontal fixed bar grilles with 15° blade inclination.

## **L. Exhaust/Fresh Air Louvers**

- The louvers shall be fabricated from aluminium extruded sections.
- The blades shall be extruded flush mounted type with single horizontal throw.
- The frame shall be of aluminium extruded section and shall hold the louvers in fixed position

## **ELECTRONIC SYSTEM**

### **1. FIRE ALARM SYSTEM**

- Design and Provision of Morley-IAS by Honeywell DX Connexion is a compact, high performance, feature rich, economical fire alarm control panel designed to help both the installer and the end user in the protection of small to medium sized buildings, Disable all relays, Optional 40, 80 or 160 zone alarm LEDs, Easy 5 key-press set-up, Large blue LCD display, Supports USB upload/download, Alpha-numeric style keypad and navigation keys, Option to upload a company logo, 160 zone compact mimic support, Panel buzzer 'mute' in engineering mode, Up to 72 hour standby, PC zone compact mimic support, Panel buzzer 'mute' in engineering mode, Up to 72 hour standby, PC zone compact mimic support, Panel buzzer 'mute' in engineering mode, Up to 72 hour standby, PC for false alarm management, Sensitivity adjustment e.g. between day and night, Input/output logic, Enhanced zone support up to 160 LEDs, Type B dependency, Alternative zone referencing scheme, 2 independent sounder circuits, 500mA multi-protocol loop driver, 2 x onboard monitored inputs, Battery backed real-time clock (2 & 4 loop) Optional programmable key switch for selected functions, Plug-in connectors, IP30 (EN6059) Relative Humidity 5% - 95% non-condensing, Operating Temperature 0°C to (1 Loop, Networkable, Multi-Protocol, Analogue Addressable Fire Alarm Control Panel .

- Supply Installation, Testing & commissioning of Smoke Detector, Make:- Honeywell
- Supply Installation, Testing & commissioning of AUDIBLE VISUAL DEVICES SOUNDER , Make:- Honeywell
- Supply Installation, Testing & commissioning of Heat Sensor , Make:- Honeywell
- Supply Installation, Testing & commissioning of Unique 'Plug & Play' installation concept, Re-settable operating element option, Analogue addressable communications, Fully compliant with EN54, Part 11, Backward compatibility, Enhanced aesthetics, Integral LED, Integral Semi-Flush or surface mounting, loop isolation option Manual Call Points, Make:- Honeywell
- Supply Installation, Testing & commissioning of 12V 7 AH Battery
- Supply Laying Installation, Testing & commissioning of FRLS Cable (Normal Cable)
- Supplying, Laying and fixing in position of the following sizes of exposed/concealed ISI Mark PVC conduit including all accessories complete as required and as per specifications.
- Providing and fixing 25 mm dia 2mm thick conduit with all fitting accessories as complete.
- Design, Supplying , Laying, Testing and commissioning of following sizes (NB)-40/32/25 NB ISI marked heavy class M.S pipes including cutting, screwing, welding etc and providing all fittings such as valve, elbows, reducers, flanges, gaskets, nut, bolts and washers etc. including applying with one coat of ready-mix primer, paint etc. complete as required. (Grade-C)
- Supply, fixing and testing of 15mm dia. chrome finished sprinkler head with standard response 5mm quartz bulb and to operated at 68C (of K-Factor 5.6) complete as per given specification (UL Listed & FM Approved)
- Flexible sprinkler connection to be fixed in G.I metal false ceiling, necessary fitting accessories/ support system as complete.
- MS structure support for up ground pipe line as per site requirement or as per design.
- Applying with one coat of ready-mix primer, paint etc. complete as required.

## **FLOORING IN CLASSIFIED CLEAN ROOM AREAS: EPOXY**

Providing and fixing applying high performance self leveling epoxy floor coating in 5 mm thickness of approved make/brand over one coat of epoxy primer over prepared surface by means of special spike rollers and other tools so as to removes all trapped air bubbles and achieve smooth glossy and leveled surface as desired by Engineer in- charge. It includes surface preparation: Remove the existing damages epoxy floor and epoxy coving, cleaning of surface free from dust, Dirt, moisture, oil & all foreign cleaning all mechanized equipments are to be used like grinding machine, scrubber, sanders not air blowers, vacuum cleaners, moisture test machine etc. Once, cleaned, the surface is roughened to prepare the surface for application of epoxy primer, filling of small cracks and unevenness with epoxy repairing putty.

Providing and making rounding epoxy coving 75 x 75 mm size, flush with the wall to floor in radius of 75mm. Including preparation of site, scraping & cleaning etc. complete and as directed by the Engineer- in-Charge.

### **EPOXY PAINTING BELOW THE RAISED ASSESS FLOORSURFACES:**

**Epoxy paint of clean room-compatible quality with one layer of putty and two layers of self-levelling 2 mm thick epoxy paints shall be provided on the existing civil flooring and side walls beneath the raised access floor to provide a smooth dust free surface.**

## **MISCELLANEOUS**

### **A. Dismantling and demolishing**

- Removal /shifting of old furniture, and accessories and others unserviceable by mechanical transport including loading, unloading and proper stacking within 300 mtr. lead as per direction of Engineer in-charge. **(The contractor shall visit of site and study the scope in detail work before submitting tender)**
- Demolishing R.C.C. Slab/ Granite counter with brick masonry support by manual including stacking of steel bars and disposal of unserviceable material.
- Demolishing brick work (9" brick masonry wall (2 nos.) including stacking of serviceable material and disposal of unserviceable material. If passable with consultation of Structure Engineer
- Dismantling of ceramic floor tiles and as well as wall tiles as per site.

- Dismantling of 12 mm thick gypsum board false ceiling or partition walls including stacking of serviceable materials.
- Dismantling/ removal of aluminium partitions, doors, windows, fixed glazing including disposal of unserviceable material and stacking of serviceable material as directed by Engineer-in-charge.
- Dismantling/ taking out existing water supply line and drainage system or C.I. or G.I pipes including excavation and refilling trenches.
- Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge. Including all lifts involved.

## **B. Repair or minor civil work**

- Cutting of Hole for AHU duct as per HVAC drawing as well as same to be Repair with brick masonry work.
- Repairs to plaster of thickness 12 mm to 20 mm in patches of area after removal of wall tiles or damp proof area or any other space if required, including cutting the patch in proper shape, and preparing and plastering the surface of the walls complete, as per direction of Engineer-in-Charge.
- Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:
- Construction of RCC foundation/ cement concrete work etc. for AHU and other outsider equipment cooling systems as per approved drawing and design.

## **C. AHU shed**

Supplying and fixing steel structural shed in built up tubular (4"/3"/2"/ round, square or rectangular hollow tubes etc.) including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. and painting complete. Fixing in pre-coated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) on top roof, side cover with angle iron support, welded mesh and related other allied work desired by Engineer -in- charge.

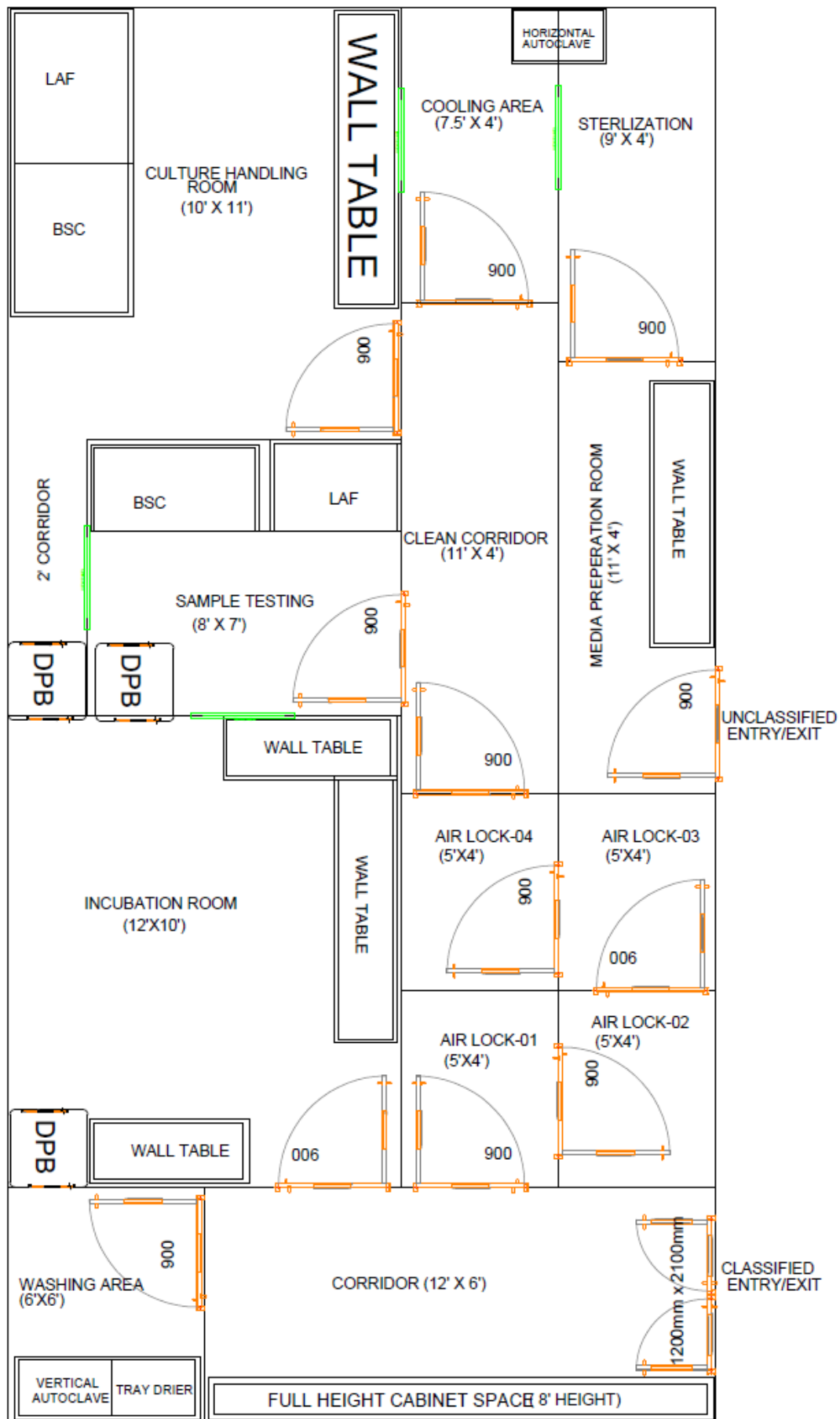
**Size of Shed (4.0 mtr. L X 4.40 mtr. W x 2.50 mtr. H)**

## **‘MAKES’ OF ITEMS**

**Note: The bidder must indicate the makes he/she has used to cost his/her bid. An alternate make may be indicated as a substitute to be used if the offered make become unavailable. More than (2) two makes are Not to be indicated.**

S. No.	Description	Approved Makes
1.	Air Handling Units (High Static)	VTS/Flatwoods/SystemairZeco
2.	Condenser Unit	Daikin / Mitsubishi/Gree
3.	Blower	Nicotra/Kruger
4.	Filters	Thermodyne /Mechmark /Camfil
5.	Copper Pipes	Mandev / Malaysia /eq.
6.	PANEL – PUF	Fabtech /GMP/Iclean/Synergy/Equivalent
7.	Terminal Block	Elmex/ Comex/ HMI
8.	Voltmeter/Ammeter	Siemens/AE/KAPPA
9.	Indicating lamps	Siemens/L&T/Cutler Hammer/Covered modular/Vaishno
10.	Selector Switches	Siemens/L&T/Kaycee/GE
11.	Change Over Switch	Siemens/L&T/HH Elcon/ Socomech/ HPL
	<b>Cables</b>	
12.	Control Cables	Batra Henley, Glostor, KEI
13.	Power Cables	GlosterFinolex, Rallison, KEI, National, Batra Henlay
	<b>Ducting &amp; Grilles</b>	
14.	<i>Factory fabricated duct</i>	Dustech/ Ductofab/Ecoduct/Zeco
15.	Pre-insulated Duct	Pi PAL/P3/ Zeco/Asawa
16.	Therma diffuser	Acutherm USA/Trocellene
17.	Fire Dampers motors	Belimo/Seimens/ Honeywell
18.	G.I. Sheet Metal Duct	Jindal Hissar /National/ Tata
19.	Grilles/Fire Dampers/Diffusers	AirMaster / Ruskin-Titus/Airflow/ Dynamic/Systemair
20.	G.I. Sheets	Jindal Hissar/ SAIL/ Nippon
21.	Self adhesive gaskets	“Prima Seal”.
22.	Line Type Fuse	GEC Alsthom/Siemens
23.	Timer	Siemens/Cutler Hammer/ GEC

	<b>Air Filters</b>	
24.	Filters	Purolator/ Mechmark/Camfil/Thermodyne
25.	<b>Insulation</b>	
26.	Expanded Polystyrene	Thermolloyd// Armacell/K-flex
27.	Glass Wool	Kimmco /U.P. Twiga
28.	Polyurethane Foam	Malanpur /Superurethane/Armacell
29.	Crossedlinked Polyethylene Foam	Trocellene/Thermobreak/ Thermaflex
30.	Closed Cell Elastomeric Insulation	Armacell/ ALP A-flex
31.	Non wovenfibre material	Mikron/ Du pont/K-flex
32.	Premoulded PUF section for pipe & pipe supports	Malanpur/ Lloyd/ K-flex
33.	Aluminium Tape	Johnson/Birla 3M/Garware
34.	<b>Miscellaneous</b>	
35.	Anchor fastners	Hilti/Rawlplug
36.	Vibration isolator	Resistoflex, Dunlup, Kanwal
37.	Door accessories	Dorma /Equi.
38.	Laboratory Tables/Lab furniture	ArtlabEquipments/Godrej/Burdinola
39.	Bio-safety/LAF	Thermo Fisher/ Artlab/ESCO/labconco
40.	Autoclave	Artlab/Yatherm/Thermo Fisher/ Precision Electronics Instruments & Components Mumbai
41.	Incubators	ESCO/Eppendorf/Thermofisher/Friocell-BMT



**PROPOSED LAYOUT CLEANROOM- JAMMU**

## CHAPTER 5

### Price Schedule Forms

#### Table of Contents

Sl. No.    Type of Price Schedule Form

Price schedule for Goods being offered from abroad

Price schedule for Goods offered from India

#### **PRICE SCHEDULE FOR GOODS BEING OFFERED FROM INDIA**

Name of the Bidder \_\_\_\_\_

Tender \_\_\_\_\_

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	Item Description With HSN code	Country of origin	Unit	Quantity	Unit Rate Ex-Works, Ex-warehouse, Ex-show room off the shelf price (inclusive of all taxes already paid)	Total price Ex-Works, Ex-warehouse, Ex-show room off the shelf price (inclusive of all taxes already paid) 5x6	GST & other taxes payable, if contract is awarded	Packing & forwarding up to station of dispatch if any	Charges for inland transportation, insurance up to Lab. / Instt.by <b><i>air/road/rail (retain one only)</i></b>	Total

Note:

Total Bid price in foreign currency \_\_\_\_\_



(a) The cost of optional items, if any shall be indicated separately in words \_\_\_\_\_

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD

Name of the Bidder \_\_\_\_\_ TENDER No. \_\_\_\_\_

1	2	3	4	5	6	7	8	9	10
(b) Cost of Spares, if any						Signature of Bidder _____			
Sl. No.	Item Description	Country of origin	Unit	Qty.	Unit price Indicating currency	Total price (5x6)	Charges for Insurance & transportation to port/place of destination	Total price <b>CIF/CIP (retain one only)</b> (7+8)	Indian Agents Commission as a percent of FOB /FCA price included in the Quoted price
					FOB (named port of shipment or FCA (named place of delivery) <b>(retain only one)</b>	FOB (named port of shipment) or FCA (named place of delivery) <b>(retain only one)</b>			

Note: Currency \_\_\_\_\_ Total Bid price in foreign currency \_\_\_\_\_ in words \_\_\_\_\_

Note: The bidder may fill in the appropriate Price Schedule Form and enclose as per Clause 1.10 and 1.18.3 of the bidding document

(a) Indian agents name & address \_\_\_\_\_

(b) Installation, commissioning & training charges, if any \_\_\_\_\_

Signature of the Bidder

(c) Cost of Spares, if any \_\_\_\_\_

Business Address \_\_\_\_\_

(d) The Indian agent's commission shall be paid in Indian Rupees only based on the Exchange Rate prevailing on the date of negotiation of documents in accordance with clause 2.22 of GCC.

(e) The cost of optional items shall be indicated separately.

## **CHAPTER 6**

### **Qualification Requirements**

*(refer to Annexure-4E of the CSIR Manual)*

***(Notes for internal use only)***

*Pre-Qualification Criteria (PQC) should be unrestrictive enough so as not to leave out even one capable vendor/contractor. Otherwise, it can lead to higher prices of procurement/works/services. However, on the other hand, these criteria should be restrictive enough so as not to allow even one incapable vendor/contractor and thus vitiate fair competition for capable vendors/contractors to the detriment of the buyer's objectives. A misjudgement in either direction may be detrimental. A sample PQC is given as under:*

*.Due consideration should be given while framing PQC, to its effect on adequacy of competition. To encourage MSEs, past successful bidders, a call may be taken – whether PQC should apply to full quantity/packages or be proportional to part quantity/ package quoted by a bidder. In case requirement is suddenly a multiple times the past procurements, blind adoption of past PQCs may lead to disqualification of successful past vendors leading to inadequate competition. PQC should therefore be carefully decided for each procurement with the approval of CA for acceptance of the tender. It should be clarified in the PQB documents that bidders have to submit authenticated documents in support of eligibility criteria. Sample Prequalification criteria*

#### ***Criteria 1 - Experience and Past Performance:***

- a) *The bidder (manufacturer or principal of authorised representative – hereinafter referred simply as 'The Bidder') should have regularly for at least the last \_\_\_\_\_] years, ending 31st March of the previous financial year (hereinafter called 'The relevant Date'), manufactured and supplied (/erected/ commissioned \_\_\_\_\_ [Name of Requirement], with the same or higher specifications having/with \_\_\_\_\_ parameters (hereinafter called 'The Product'). The bidder should submit the manufacturer authorisation form as appended in Chapter-8 and*
- b) *'The bidder' should have manufactured and supplied (/erected/commissioned) at least \_\_\_\_\_ numbers (herein after referred as 'The Qualifying Quantity') of 'The Product' in at least one of the last five years ending on 'The relevant Date', and out of which*
- c) *At least \_\_\_\_\_ numbers of offered version/model of 'The product' should be in successful operation for at least \_\_\_\_\_ years on the date of bid opening.*

#### ***Criteria 2 - Capability- Equipment & manufacturing Facilities:***

*'The bidder' must have an annual capacity to manufacture and supply (/erected/ commissioned)at least \_\_\_\_\_ (The Qualifying Quantity)*

*Note: In case of multiple products in a tender, this criterion shall be applicable product wise. For example, in case of Printing Paper of different specifications/sizes, it shall be applicable to quantity of paper manufactured and supplied specification/size wise.*

#### ***Criteria 3 - Financial Standing – under all conditions***

- a) *The average annual financial turnover of 'The bidder' during the last three years, ending on 'The relevant Date', should be at ₹ \_\_\_\_\_ (or equivalent in foreign currency at exchange rate prevalent on 'The Relevant Date') ( fix the value as 40-80% or any other percentage of the estimated cost of the quantity in the bid*

document) as per the annual report (audited balance sheet and profit & loss account) of the relevant period, duly authenticated by a Chartered Accountant/Cost Accountant in India or equivalent in relevant countries.

Ministry of MSME have clarified that all Central Ministries/Departments/Central Public Section Undertakings may relax condition of prior turnover and prior experience with respect to Micro and Small Enterprises in all public procurements subject to meeting of quality and technical specifications. Further, the condition of prior turnover and prior experience may be relaxed for Start-ups (as defined by Department of Industrial Policy and Promotion) subject to meeting of quality & technical specifications and making suitable provisions in the bidding document (rule 173 (i) of GFR 2017))

- b) Bidder Firm (manufacturer or principal of authorised representative) should not have suffered any financial loss for more than one year during the last three years, ending on 'The Relevant Date'.
- c) The net worth of the Bidder firm (manufacturer or principal of authorised representative) should not be negative on 'The Relevant Date' and also ii) should have not eroded by more than 30% (thirty percent) in the last three years, ending on 'The Relevant Date'.

Note: In case of Indian Bidders/companies (manufacturer or principal of authorised representative) who have been restructured by Banks in India, under the statutory guidelines, they would be deemed to have qualified the Financial standing criteria considering the institutional financial backing available to them.

*Applicability in Special Cases:*

- a) Applicability to 'Make in India' :Bidders (manufacturer or principal of authorised representative) who have a valid/approved ongoing 'Make in India' agreement/program and who while meeting all other criteria above, except for any or more of sub-criteria in Experience and Past Performance above, would also be considered to be qualified provided:
  - i) their foreign 'Make-in-India' associates meet all the criteria above without exemption, and
  - ii) the Bidder submits appropriate documentary proof for a valid/approved ongoing 'Make in India' agreement/program.
  - iii) the bidder (manufacturer or principal of authorised representative) furnishes along with the bid a legally enforceable undertaking jointly executed by himself and such foreign Manufacturer for satisfactory manufacture, Supply (and erection, commissioning if applicable) and performance of 'The Product' offered including all warranty obligations as per the general and special conditions of contract.
- b) Authorized Representatives: Bids of bidders quoting as authorised representative of a principal manufacturer would also be considered to be qualified, provided:
  - i) their principal manufacturer meets all the criteria above without exemption, and
  - ii) the principal manufacturer furnishes a legally enforceable tender-specific authorisation in the prescribed form assuring full guarantee and warranty obligations as per the general and special conditions of contract; and
  - iii) the bidder himself should have been associated, as authorised representative of the same or other Principal Manufacturer for same set of services as in present bid (supply, installation, satisfactorily commissioning, after sales service as the case may be) for same or similar 'Product' for past three years ending on 'The Relevant Date'.

- c) *For Existing Successful Past Suppliers: In case the bidder (manufacturer or principal of authorised representative) who is a successful past supplier of 'The Product' in at least one of the recent past \_\_\_\_\_ procurements, who do not meet any or more of requirements above, would also be considered to be qualified in view of their proven credentials, for the maximum quantity supplied by him in such recent past.*
- d) *Joint Ventures and Holding Companies: Credentials of the partners of Joint ventures cannot (repeat cannot) be clubbed for the purpose of compliance of PQC in supply of Goods/Equipment, and each partner must comply with all the PQC criteria independently. However, for the purpose of qualifying the Financial Standing Criteria, the Financial Standing credentials of a Holding Company can be clubbed with only one of the fully owned subsidiary bidding company, with appropriate legal documents proving such ownership.*

Note for Bidders:

- a) 'Doctrine of Substantial Compliance': The Pre-Qualification Bidding (PQB) and Pre- Qualification Criteria (PQC) are for shortlisting of sources who are competent to perform this contract to ensure best value for money from expenditure of Public Money. This process is neither intended to bestow any entitlement upon nor to create any rights or privileges for the Bidders, by way of overly hair-splitting or viciously legalistic interpretations of these criteria, disregarding the very rationale of the PQB and PQC. Keeping this caveat in view, interpretation by the Purchaser would be based on common usage of terminologies and phrases in public procurement in accordance with the 'Doctrine of Substantial Compliance' and would be final.
- b) The Bidder must declare, whether asked or not in a bid document, any previous transgressions of such a code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity. Failure to do so would amount to violation of this code of integrity.
- c) In case of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/ dealer. There can be only one bid from the following:
  - i) The Principal manufacturer directly or through one Indian agent on his behalf; and
  - ii) Indian/foreign agent on behalf of only one principal.
- d) Along with all the necessary documents/certificates required as per the tender conditions, the bidder should furnish a brief write-up, backed with adequate data, explaining his available capacity (both technical and financial), for manufacture and supply of the required goods/equipment, within the specified time of completion, after meeting all their current commitments.
- e) Supporting documents submitted by the bidder must be certified as follows:
  - i) All copy of supply/work order; respective completion certificate and contact details of clients; documents issued by the relevant Industries Department/National Small Industries Corporation (NSIC)/ manufacturing licence; annual report, etc., in support of experience, past performance and capacity/capability should be authenticated by the by the person authorised to sign the tender on behalf of the bidder. Original Documents must be submitted for inspection, if so demanded.
  - ii) All financial standing data should be certified by certified accountants, for example, Chartered Accountants/Cost Accountants or equivalent in relevant countries; and Indian bidder or Indian counterparts of foreign bidders should furnish their Permanent Account Number.
- f) A bidder or any of its affiliates who participated as a consultant in the preparation of the design or technical specifications of the contract i.e. the subject of the bid; cannot participate in the bidding process.

- g) Indian agents quoting on behalf of its foreign principal need to submit a copy of the agency agreement with the foreign principal detailing the services to be rendered by them on behalf of the principals, failing which its bid shall not be considered.
- (h) Foreign bidders to disclose the name and address of agent and representatives in India and Indian bidder to disclose their foreign principal or associates.

## **CHAPTER 7**

### **Contract Form**

Contract No. \_\_\_\_\_ Date: \_\_\_\_\_

THIS CONTRACT AGREEMENT is made the [ *insert: number* ] day of [ *insert: month* ], [

*insert: year* ].

BETWEEN

(1) The Council of Scientific & Industrial Research registered under the Societies Registration Act 1860 of the Government of India having its registered office at 2, Rafi Marg, New Delhi-110001, India represented by \_\_\_\_\_ [ *insert complete name and address of Purchaser* ] (hereinafter called “the Purchaser”), and

(2) [ *insert name of Supplier* ], a corporation incorporated under the laws of [

*insert: country of Supplier* ] and having its principal place of business at [ *insert: address of Supplier* ] (hereinafter called “the Supplier”).

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [ *insert brief description of Goods and Services* ] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [ *insert Contract Price in words and figures, expressed in the Contract currency(ies)* ] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the

Contract:

- (a) This Contract Agreement
- (b) Special Conditions of Contract

- (c) General Conditions of Contract
- (d) Technical Requirements (including Schedule of Requirements and Technical Specifications)
- (e) The Supplier's Bid and original Price Schedules
- (f) The Purchaser's Notification of Award
- (g) *[Add here any other document(s)]*

3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

4. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the Council of Scientific & Industrial Research

Signed: *[insert signature]*

in the capacity of *[ insert title or other appropriate designation ]*

in the presence of *[ insert identification of official witness ]* Signed: *[ insert signature ]*

in the capacity of *[ insert title or other appropriate designation ]* in the presence of *[ insert identification of official witness ]* For and on behalf of the Supplier

Signed: *[ insert signature of authorized representative(s) of the Supplier ]* in the capacity of *[ insert title or other appropriate designation ]*

in the presence of [ *insert identification of official witness* ]

**CHAPTER 8**

**Other Standard Forms**

**(To be enclosed as indicated below)**

**Table of Contents**

<b>Sl. No.</b>	<b>Name</b>
01.	Bidder Information Form (to be enclosed with the technical bid)
02.	Manufacturers' Authorization Form (to be enclosed with the technical bid)
03.	Bid Security Form (to be enclosed with the technical bid)
04.	Bid Securing Declaration. (to be enclosed with the technical bid)
05.	Performance Statement Form (to be enclosed with the technical bid)
06.	Deviation Statement Form (to be enclosed with the technical bid)
07.	Service Support Detail Form (to be enclosed with the technical bid)
08.	Bid Form (to be enclosed with the priced bid)
09.	Performance Security Form (to be enclosed with the technical bid)
10.	Acceptance Certificate Form (to be enclosed with the technical bid)



11.	Integrity Pact (to be enclosed with the technical bid)
12.	Format of Letter of Authority for participating in bid opening
13.	Format of declaration of abiding by the code of integrity and conflict of interest to be submitted by the bidder.

**Note : Please refer clause 1.10.1 of the bidding documents for other documents to be attached with the bids/offers.**

**Bidder Information Form***(Refer para 5.1.2 (ix)(a) of the CSIR Manual)*

- (a) *The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]*

Date: *[insert date (as day, month and year) of Bid Submission]*

Tender No.: *[insert number from Invitation for bids]*

Page 1 of \_\_\_\_\_ pages

01.	Bidder's Legal Name <i>[insert Bidder's legal name]</i>
02.	In case of JV, legal name of each party: <i>[insert legal name of each party in JV]</i>
03.	Bidder's actual or intended Country of Registration: <i>[insert actual or intended Country of Registration]</i>
04.	Bidder's Year of Registration: <i>[insert Bidder's year of registration]</i>
05.	Bidder's Legal Address in Country of Registration: <i>[insert Bidder's legal address in country of registration]</i>
06.	Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
07.	Attached are copies of original documents of: <i>[check the box(es) of the attached original documents]</i> Articles of Incorporation or Registration of firm named in 1, above.

Signature of Bidder \_\_\_\_\_

Name \_\_\_\_\_

Business Address \_\_\_\_\_

**MANUFACTURERS' AUTHORIZATION FORM***(Refer para 5.1.2 (ix)(b) of the CSIR Manual)*

***[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer and be enclosed with the technical bid.]***

Date: *[insert date (as day, month and year) of Bid Submission]* Tender No.:

*[insert number from Invitation for Bids]* To: *[insert complete name and address of Purchaser]* WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 2.21 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

**BID SECURITY FORM***(Refer para 5.1.2 (ix)(c) & 6.1.1 (01) of the CSIR Manual)*

Whereas \_\_\_\_\_ (hereinafter called the tenderer") has submitted

their offer dated \_\_\_\_\_ for the supply of \_\_\_\_\_

(hereinafter called the tender") against the purchaser's tender enquiry No. \_\_\_\_\_

KNOW ALL MEN by these presents that WE \_\_\_\_\_ of

\_\_\_\_\_ having our registered office at

\_\_\_\_\_ are bound unto \_\_\_\_\_

(hereinafter called the "Purchaser")

In the sum of \_\_\_\_\_

for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

## THE CONDITIONS OF THIS OBLIGATION ARE:

- (1) If the tenderer withdraws or amends or modifies or impairs or derogates from the Tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-
  - (a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
  - (b) Fails or refuses to accept/execute the contract.

WE undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity i.e., up to \_\_\_\_\_ and any demand in respect thereof should reach the Bank not later than this date.

\_\_\_\_\_  
(Signature of the authorized officer of the Bank)

Name and designation of the officer Seal,  
Name & Address of the Issuing Branch of the  
Bank

**Note: Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.**

**Annexure-5F**

**Bid-Securing Declaration Form**

*(Refer para 5.1.2 (ix)(d) & 6.1.1 (02) of the CSIR Manual)*

Date: \_\_\_\_\_

Bid No. \_\_\_\_\_

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

- (a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- (b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of : (insert complete name of Bidder)

Dated on \_\_\_\_\_ day of \_\_\_\_\_ (insert date of signing)

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)

**PERFORMANCE STATEMENT FORM***(Refer para 5.1.2 (ix)(e) of the CSIR Manual)***(For a period of last 3 years)****Name of the Firm.....**

Order Placed by (full address of Purchaser)	Order No. and date	Descrip- tion and quantity of ordered equip- ment	Value of order	Date of comple- tion of deliver as per Contract	Date of actual comple- tion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been installed satisfactory ? (Attach a certificate from the purchaser/ Consignee)	Contact person along with Telephone No., FAX No. and e-mail address

Signature and Seal of the manufacturer/Bidder .....

Place :  
Date :

**DEVIATION STATEMENT FORM***(Refer para 5.1.2 (ix)(f) of the CSIR Manual)*

Sl.No.	Name of Specifications / Parts / Accessories of Tender Enquiry	Specifications of Quote Model / Part /Accessory	Compliance Whether Yes or No	Deviation, if any to be indicated in unambiguous terms (The compliance / Deviation should be supported by relevant Technical Literature)	Technical justification for the deviation, if any. If specification is superior /inferior than asked for in the enquiry, it should be clearly brought out in the justification

**Signature of Bidder**

- ✓ If the bidder offers more than one model, then the Compliance Statement must be enclosed for each and every model separately.
- ✓ The technical and commercial deviations should be indicated separately.
- ✓ If the bidder fails to enclose the compliance statement, his bid is likely to be rejected.

Place:

Date:

Signature and seal of the  
Manufacturer/Bidder**NOTE:**

- 1) Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

**Annexure-5I**

**SERVICE SUPPORT FORM**  
**(Refer para 5.1.2(ix)(g) of the CSIR Manual)**

<b>S. No</b>	<b>Nature of Training</b>	<b>List of Similar Type equipment serviced in the past 3 years</b>	<b>Address, Telephone Nos., Fax Nos., and email address</b>
--------------	---------------------------	--	---

**Signature and Seal of the manufacturer/Bidder.....**

**Place :**

**Date :**



**Bid Form**

(Refer para 5.1.2 (ix)(h) of the CSIR Manual)

*[The Bidder shall fill in this Form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date: *[insert date (as day, month and year) of Bid Submission]* Tender No.:

*[insert number from Invitation for Bids]* Invitation for Bid No.: *[insert No of IFB]*

To: *[insert complete name of Purchaser]* We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda No.: *[insert the number and issuing date of each Addenda]*;
- (b) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services *[insert a brief description of the Goods and Related Services]*;
- (c) The total price of our Bid, excluding any discounts offered in item (d) below, is: *[insert the total bid price in words and figures, indicating the various amounts and the respective currencies]*;
- (d) The discounts offered and the methodology for their application are:

**Discounts:** If our bid is accepted, the following discounts shall apply. *[Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]*

- (e) Our bid shall be valid for the period of time specified in ITB Sub-Clause 1.17.1 from the date fixed for the bid opening, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 1.43 and GCC Clause 2.13 for the due performance of the Contract and also submit order acceptance within 14 days from the date of contract in accordance with ITB Clause 1.42 and GCC Clause 2.44;
- (g) The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount
_____	_____	_____	_____
_____	_____	_____	_____

\_\_\_\_\_  
(If none has been paid or is to be paid, indicate "none.")

- (h) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed:

*[insert signature of person whose name and capacity are shown]*

In the capacity of *[insert legal capacity of person signing the Bid Submission Form]*

Name: *[insert complete name of person signing the Bid Submission Form]*

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

**PERFORMANCE SECURITY FORM***(Refer para 5.1.2 (ix)(i) & 6.1.2 (02) of the CSIR Manual)***MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY**

To,

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

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

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

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

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the ..... day of ....., 20.....

(Signature of the authorized officer of the Bank)

.....  
 Name and designation of the officer

.....  
 Seal, Name & Address of the Issuing Branch of the Bank

**Note:** Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

**ACCEPTANCE CERTIFICATE FORM**  
(Refer para 5.1.2 (ix) (j) of the CSIR Manual)

No  
M/s

Date

Sub:

Certificate of commissioning of equipment

-----

1. This is to certify that the equipment as detailed below has/have been received in good condition along with all the standard and special accessories (subject to remarks in Para 2). The same has been installed and commissioned.

- (a) Contract No. \_\_\_\_\_ Date \_\_\_\_\_  
 (b) Description of the equipment \_\_\_\_\_  
 (c) Name of the consignee \_\_\_\_\_  
 (d) Scheduled date of delivery of the consignment to the Lab./Instts. \_\_\_\_\_  
 (e) Actual date of receipt of consignment by the Lab./Instts. \_\_\_\_\_  
 (f) Scheduled date for completion of installation/commissioning \_\_\_\_\_  
 (g) Training Starting Date \_\_\_\_\_  
 (h) Training Completion Date \_\_\_\_\_  
 (i) Names of People Trained \_\_\_\_\_  
 (j) Actual date of completion of installation/commissioning \_\_\_\_\_  
 (k) Penalty for late delivery (at Lab./Instts. level) ₹ \_\_\_\_\_  
 (l) Penalty for late installation (at Lab./Instts. level ₹ \_\_\_\_\_

Details of accessories/items not yet supplied and recoveries to be made on that account:

Sl. No.	Description	Amount to be recovered
---------	-------------	------------------------

--	--	--

2. The acceptance test has been done to our entire satisfaction. The supplier has fulfilled his contractual obligations satisfactorily

or

The supplier has failed to fulfil his contractual obligations with regard to the following:

- (a) .....
- (b) .....
- (c) .....
- (d) .....

The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated at Sr. No. 3.

**For Supplier**

**Signature**  
**Name**  
**Designation**  
**Name of the Firm**

**For Purchaser**

**Signature**  
**Name**  
**Designation**  
**Name of the Institution**

**Format of Integrity Pact***(Refer para 5.1.2 (ix) (k) of the CSIR Manual)***INTEGRITY PACT**

Between

Council of Scientific & Industrial Research (CSIR) a Society registered under the Indian Societies Act 1860 represented by \_\_\_\_\_ hereinafter referred to as “The Principal”.

And .....herein referred to as “The Bidder/ Contractor.”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for

.....The Principal values full compliance with all relevant laws of the

land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

**Section 1 – Commitments of the Principal**

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - (c) The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action.

**Section 2 – Commitments of the Bidder(s)/Contractor(s)**

- (1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
  - (a) The Bidder(s)/Contractor(s) will not, directly or through any other Person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in

exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- (b) The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, Certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
  - (c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
  - (d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.  
  
Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annexure.
  - (e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
  - (3) The person signing IP shall not approach the courts while representing the matters to IEMs and he/she will await their decision in the matter.

### **Section 3 – Disqualification from tender process and exclusion from future Contracts**

- (1) If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings". Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annex -"B".

### **Section 4 – Compensation for Damages**

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- (2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

### **Section 5 – Previous transgression**

- (1) The Bidder declares that no previous transgressions occurred in the last 3 Years with any other Company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in “Guidelines on Banning of business dealings.”

#### **Section 6 – Equal treatment of all Bidders / Contractors/ Sub-contractors**

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all Subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

#### **Section 7 – Criminal charges against violating Bidders / Contractors/ Subcontractors**

- (1) If the Principal obtains knowledge of conduct of a bidder, Contractor or Subcontractor or of an employee or a representative or an associate of a bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

#### **Section 8 - Independent External Monitors**

- (1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the JS (A), CSIR.
- (3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Subcontractor(s) with confidentiality.
- (4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notice, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- (6) The Monitor will submit a written report to the JS(A), CSIR within 8 to 10 weeks from the date of reference or intimation to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.
- (7) Monitor shall be entitled to compensation on the same terms as being extended to/provided to Independent Directors on the CSIR.
- (8) If the Monitor has reported to the JS(A),CSIR, a substantiated suspicion of an offence under relevant IPC/PC Act, and the JS(A), CSIR has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- (9) The word 'Monitor' would include both singular and plural.

#### **Section 9 – Pact Duration**

This Pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by JS(A), CSIR.

#### **Section 10 – Other provisions**

- (1) This agreement is subject to Indian Law. Place of performance and Jurisdiction is the Registered Office of the Principal, i.e. New Delhi



- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

---

(For & On behalf of the Principal) (Office Seal

---

For & On behalf of Bidder/Contractor) (Office Seal)

Place

Place

Date

Date

Witness 1:(Name & Address")

Witness 2:(Name & Address)

**Format of Letter of Authority for participating in bid opening**

(On the letter head of the bidder)

*(Refer para 5.1.2 (ix)(I) & 5.3.2 of the CSIR Manual)*

Ref.No. \_\_\_\_\_

Date: \_\_\_\_\_

**Subject: Authorisation letter for participants in the bid opening process**

To

\_\_\_\_\_

\_\_\_\_\_

(Name & Address of the Purchaser)

Sir

With reference to your invitation for bid No. \_\_\_\_\_ dated \_\_\_\_\_, we wish

to inform you that we have participated in the bidding process and have submitted bid bearing Ref. No. \_\_\_\_\_ dated \_\_\_\_\_.

In line with your requirement, we hereby authorise Sh/Smt. \_\_\_\_\_ to

participate in the bid opening process scheduled on \_\_\_\_\_ at \_\_\_\_\_ hrs (IST) in your

premises. A copy of the identity of the representative is attached duly certified by the undersigned.

Thanking you

Yours faithfully,

(Signature of the bidder with seal)

**Format for declaration by the Bidder for Code of Integrity & conflict of interest (Refer para 3.2.1 & 5.1.2 (ix)(m) of the CSIR Manual)**

**(On the Letter Head of the Bidder)**

Ref. No: \_\_\_\_\_

Date \_\_\_\_\_

To,

\_\_\_\_\_  
\_\_\_\_\_

(Name & address of the Purchaser)

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 mentioned under Para 1.3.0 of ITB of your Tender document and have no conflict of interest.

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)

Company seal

Tender Ref: \_\_\_\_\_ Dated : \_\_\_\_\_

Certificate Regarding Procurement from a bidder of a country which shares a land border with India

“We have read the clauses regarding restrictions on procurement from a bidder of a country which shares a land border with India, as per Office Memorandums issued by Department of Expenditure, PPD, Ministry of Finance, under F. No. 6/18/2019-PPD and we hereby certify that our firm is not from such a country and is eligible to be considered”

Or

However if any bidder falls in the category of bidders as indicated in the Definitions clause at Cl. No.6,7,8,9,and 10 of Oder (F.NO. 6/18/2019-PPD, Public Procurement no. 1) Dt. 23-07-2020, should submit the certificate as under:

“We have read the clauses regarding restrictions on procurement from a bidder of a country which shares a land border with India as per Office Memorandums issued by Department of Expenditure, PPD, Ministry of Finance, under F. No. 6/18/2019-PPD and we hereby certify that our firm is from such a country and has been registered with Competent Authority (Specified in Annexure-I of Order (F.No. 6/18/2019-PPD, Public Procurement no. 1) dated 23.07.2020 and further certify that our firm fulfils all requirements in this regard and is eligible to be considered. The evidence of valid registration by the Competent Authority is attached herewith.”

Authorized Signatory of Bidder

Date:

Seal of the Firm

Note:

1. Choose any one of the above mentioned conditions, whichever is applicable.
2. In case of Indian Agents of the Local Suppliers have quoted against the Tender, both the Indian Agent and their Principals should submit the above mentioned certificate.

Tender Ref: \_\_\_\_\_ Dated : \_\_\_\_\_

Certificate for Local Content under PPP for Make in India

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dated 15.06.2017, (subsequently revised vide orders dated 28.05.2018, 29.05.2019, 04.06.2020 & 16.09.2020) by Govt. of India, We hereby Certify that we M/s \_\_\_\_\_  
(Name of the manufacturer) are local supplier meeting the requirement of minimum local content as defined in above orders.

As per terms and conditions of Rate Contract, Following details are as follows:-

Category of Local Supplier (Specify clearly either Class-I or Class II)	Percentage of local Content (in %)	Details of locations at which local value addition will be made.

We also understand, false declaration will be in breach of the Code of Integrity under Rule 175 (1) (i) (h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signatory of Bidder

Date:

Seal of the Firm

Verified by Chartered Accountant

Seal

Note:

1. In case of Indian Agents of the Local Suppliers have quoted against the Tender, both the Indian Agent and their Principals should submit the above mentioned certificate.