

OFFICE OF THE PRINCIPAL INVESTIGATOR

**RKVY Project, Establishment of Biosafety
level-3 (BSL-3) facility for the Diagnosis of Emerging Zoonotic Diseases**

**TERMS & CONDITIONS
OF OPEN BID (E-TENDER-02)
for
" Establishment of BSL-3 Laboratory
on Turnkey Basis"**

at

**Centre for Diagnosis, Surveillance & Response of Zoonotic
Diseases (CDSRZ)**

POST GRADUATE INSTITUTE OF VETERINARY EDUCATION AND RESEARCH (PGIVER)

N.H. -11 AGRA ROAD, JAMDOLI, JAIPUR-302031

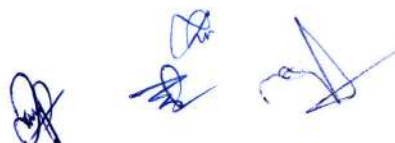
PHONE NO: 0141-2681211

FAX: 0141-2681311

E-mail ID: pirkvyprojectcdsrz@gmail.com

www.rajuvas.org

Signature of Bidder



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Signature of Bidder





Section (A)

OFFICE OF THE PRINCIPAL INVESTIGATOR

RKVY Project, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases

Post Graduate Institute of Veterinary Education and Research (PGIVER), Jaipur

Rajasthan University of Veterinary and Animal Sciences (RAJUVAS)

NH-11, Agra Road, Jamdoli, Jaipur, Rajasthan-302031

Email: pirkvyprojectcdsrz@gmail.com

Contact: 9414250161

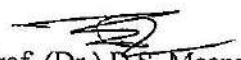
Notice Inviting Bid (NIB)

No .F/() .PGIVER /CDSRZ /2022-23/358

Date: 25-03-2023

Electronic Bids are invited from eligible original manufactures/ importers / authorized distributors on E-Procurement portal for Establishment of BSL-3 Laboratory on Turnkey Basis of estimated cost Rs 215.00 lacs. All the details, terms and conditions related to this E-Tender-02 are available on SPPP website <http://sppp.rajasthan.gov.in> and www.rajuvas.org and further can be downloaded and uploaded for Electronic submission on E-Proc. website <http://eproc.rajasthan.gov.in> from 27-03-2023 to 27-04-2023 by 3:00 PM and PRE-BID Meeting scheduled on 04-04-2023 at 11:00 AM at above address.

UBN No.VAU 2223WS0300195


Prof. (Dr.) D.S. Meena,
Principal Investigator
CDSRZ & BSL-3



Signature of Bidder

Section (B)**Instructions to Bidders (ITB)**

Note: - Please read the Terms & Conditions carefully. Incomplete Bid is liable to be rejected.

Bidders should read these conditions carefully and comply with them strictly while submitting their bid. The following points may be noted so that mistakes/lapses/shortcomings during bid submission may be avoided.

1. All pages of the bid document are to be FILLED (wherever required), PAGE NUMBERED serially, SIGNED and electronically submitted (ONLINE necessarily). If a bidder has any doubt regarding any condition or specification mentioned in the bid notice/ catalogue, he should, before submitting the bid, refer these to **Principal Investigator (P.I.), RKVY PROJECT " Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)**, immediately and obtain clarification. The decision of P.I., RKVY PROJECT, " Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, Jaipur shall be final and binding on the bidder.

Online Bid in TWO Parts i.e. **Technical Bid** (Part-I) and **Financial Bid** (Part-II) are to be submitted **till 3:00 PM on 27-04-2023** for Establishment of BSL-3 Laboratory on Turnkey Basis as per No. F/ ()PGIVER /CDSRZ /2022-23/358 Dated: 25-03-2023. Only 03 DDs and affidavit on stamp paper in Annexure – III and IV are physically deposited to the office till 5 PM on 27-04-2023 after uploading on portal, other documents are not accepted in physical form. Only technical bids will be opened for those firms who deposited the DD's /Stamp Paper/processing fees..

In **Part-I i.e., TECHNICAL BIDS** the documents for quoted items must be placed / arranged in following sequence:

- a) Tender Document with term & condition, Signed by Authorized Signatory (pg 1-82)
- b) Demand Draft of Processing Fee (in favour of MD, RISL, Jaipur)
 1. Demand Draft of Bidding Application Fee ("P I, RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR.)
 2. Demand Draft of EMD/Bid Security (in favor of "P I, RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR.)
- c) GST Registration Document
- d) Annual Turnover Certificate
- e) VAT / GST Clearance Certificate
- f) Affidavit of Not being Black-Listed
- g) Certificate of Non-Conviction
- h) Board Resolution
- i) Manufacturing License
- j) Duly Notarized photocopy of IMPORT License
- k) Duly Notarized photocopy of Authorizations letter for Distributor
- l) Bank Details
- m) Competency Certificate under Price Preference Rules AND Regd Certificate for MSME of Rajasthan, if any
- n) Declaration as per RTPP Act on Rs 100 Stamp Paper
- o) The Declaration Form in section "E (ii)" Signed by the Bidder.
- p) Technical Bid / Specifications for Items Quoted [Section E (iii) both part A and B]
- q) Technical Literature Brochure of items quoted
- r) European CE/ IVD conformity/ US FDA/UL/ISO/IEC61010/ NSF 49/EN 12469/ MIQE/21 CFR part 11 Certificate etc as per item quoted

2. It is expected from all bidders that they will ensure that documents to be used in bid set will be given to a reliable person only, and that reliable person shall be authorized for DSC. So that the confidentiality of your bid/ rates is maintained up to the bid opening & that your documents are not put to any misuse.

3. Complaints lodged in **P.I., RKVY PROJECT, "Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** should

Signature of Bidder

bear signature, name, photo ID proof and mobile number of the complainant. This is important as many departments receive many complaints on letter heads of certain companies who later on denied to have made the complaint upon their verification. Rather, a few companies have asked the concerning departments to take action against those persons who have fraudulently made use of their letter heads. Therefore, unauthenticated complaints may not be acted upon. **As per the provision of section 43 of The Rajasthan Transparency in Public Procurement Act, 2012; Whoever Intentionally files any vexatious, frivolous or malicious appeals or complaint under this Act, with the intention of delaying or defeating any procurement or causing loss to any procuring entity or other bidder, shall be punished with fine which may extend to twenty lakh rupees or five percent of the value of procurement, whichever is less.**

4. It is advisable to the firms authorize the person, who is responsible for any kind of discussions etc and informed in written to the **P.I., RKVY PROJECT, " Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)**, bid who are employed in your company on salary basis.

5. Quote only for the products for which your Product Permission meets the Bid specifications and that have been installed and already under use at other public institutes in India.

6. Quote rate at website of e-procure <http://eproc.rajasthan.gov.in> in BOQ for the packing Unit exactly given in catalogue.

7. Highlight the quoted items in the documents like Product Permission and Market Standing Certificate, and also mark the item Cat no. at appropriate place in the documents.

8. The uploaded Product Permission and other documents should be clearly legible. Date of issue of the documents should be clearly legible undated or documents with illegible date may be rejected.

9. Upload the Bids on the e-portal well in advance so that failure in uploading can be avoided and no desired document remains un-uploaded. Non uploading of documents is treated as no qualification in tender and treated as rejected.

10. All Bidders are instructed not to fill the formats in illegible handwriting, Bidders should submit all the formats neatly written so that miss-understanding may be avoided while deciding the technical bid and it should be signed by bidder/authorized signatory.

11. Bidders may send their queries to following officers: -

a. **For technical and financial issues – Prof. (Dr.) D. S. Meena (PI), Dr. Bincy Joseph and Dr. M.M.Mali (co-PIs)** of RKVY Project " Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases", PGIVER, Jaipur) via Email on : pirkvyprojectcdsrz@gmail.com

b. **For uploading of documents etc.**
Please contact to Raj. COMP, Jaipur.
Help-desk Number: 0141-4022688

12. To guide bidders and to give clarifications regarding bid conditions to bidders, a **PRE-BID MEETING** will be held on **04-04-2023 at 11.00 A.M.** in the office of the **P.I., RKVY PROJECT, " Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)**. Basic conditions of bid floated will remain unchanged and no change will be allowed in basic conditions of bid on the request of any bidder. Clarification may also be sought from the concerning officers, detail given above. The bidders/ prospective bidders may choose to attend.

13. if any kind of Suggestions of PRE-BID MEETING, which is necessary and approved by the Purchase Committee, will be uploaded on the website on 06-04-2023. After that tendering procedure will be started.

14. All the bidders have to mention and provide all required details of the item quoted in the Technical Bid / Item Details as required in Part-A and Part-B of Section E (iii) which should also include Warranty Period necessarily. The Technical

Signature of Bidder

Brochure/Literature will have to be provided in support of this information which can also be cross checked online on company's Website.

15. All the Bidders are instructed to submit the bank details for on-line payments in the Annexure-VII provided at Page No 43-44 Please write neatly and enclose a cancelled cheque in support of the details after Annexure-VII

16. BID SECURITY shall be valid for 90 days.

Signature of Bidder

A handwritten signature in blue ink, consisting of several stylized, overlapping loops and lines, located at the bottom right of the page.

Section (C)**Bid Data Sheet (BDS)**

E-BID FOR ESTABLISHMENT OF BSL-3 LABORATORY ON (E –TENER No -2, FY 2022-23)

1.	Bid Reference	No. F/() .PGIVER /CDSRZ /2022-23/ 358 Dated:25-03-2023
2.	Date for downloading Bid document	29/03/2023
3.	Estimated Tender Cost	215.00 Lac
4.	Pre-Bid Conference	04/04/2023 at 11:00 A.M. Office of the P.I., RKVY PROJECT, " Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2 nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan).
5.	Suggestions after pre bid meeting, to be approved by purchase committee, will be uploaded	06/04/2023
6.	Last Date and Time of submission of online bids and	27/04/2023 up to 3.00 P.M
7.	Last Date and Time of submission of documents deposit i.e. DD's/Affidavits etc in original	27/04/2023 up to 5.00 P.M Office of the P.I., RKVY PROJECT, " Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2 nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan).
8.	Date and Time of opening of Online technical bids	28/04/2023 at 11.00 A.M
9.	Opening of financial bids	Only technical qualified bidders are eligible for opening of financial bid after uploading of technical comparative statement.

Signature of Bidder



10.	Cost of the Bid Document	<p>Rs 2000 (Enclose it as page number 30) (DD in favour of "P I RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR") or for MSME of Rajasthan *Rs. 1000 /- (Enclose it as page number 30) (DD in favour of "P I RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR")</p>
11.	RISL Processing Fees for every bidder	<p>Rs. 2000/- (Enclose it as page number 37) (DD in favour of "MD, RISL, Jaipur" payable at Jaipur")</p>
12.	Bid Security Fees for every bidder	<p>2% of the estimated value of the tender i.e. 4.30 lac; (For MSME unit of Rajasthan 0.5%) (Enclose it as page No. 37) (DD in favour of " P I RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR")</p>

Signature of Bidder



Section (D)**Qualification and Evaluation Criteria****Eligibility Criteria**

- i.** Bidder shall be an Original Manufacturer having valid manufacturing license and/or direct importer holding valid import license; wherein original manufacturer and importer mean as following.
 - a.** Original Manufacturer means a person/firm having its own unit that performs all the manufacturing and processing operations needed to produce BSL-3 lab (desired in the Bid) in their appropriate specifications, including processing, blending, formulating, filling, packing, labeling and Quality testing with a valid license issued under the relevant act and rules.
 - b.** Importer means a person/firm having a valid license to import products (mentioned in the bid) of the desired specifications/requirements for sale issued by the competent authority.
- ii.** Authorized country distributors for Indian operations are permitted to participate subject to providing following documents: -
 - a.** All verification documents of original manufacturer and/ or importer whose item is quoted and as required in the bid.
- iii.** Authorized Dealer means Firm having Authorization to participate in the bid from original manufacturer/ Importer on its Letter head. This should be issued after Tender start date.
- iv.** **Average annual turnover** as defined in companies Act 1956 in the last three financial years shall not be less than **3 crore** for MSME of Rajasthan. For others the average annual turnover in the last three financial years should not be less than **Rupees Five Crore (5 Crore)** for original manufacturer/ Importer and **Rupees Three Crore (3 Crore)** for Authorized distributors. All the bidders have to submit CA certificate in Annexure-I (Enclose it as Page no. 38)
- v.** **All the certificates and licenses should be upto date and renewed/ valid on the date of opening of technical bid.** If the certificates and licenses submitted by the bidder are not valid at the time of opening of bid, the bid will be rejected.
- vi.** Bid should not be submitted by the bidder (Whole firm/company) which is declared Debarred/ blacklisted/ banned either by Bid inviting authority or Govt. of Rajasthan or by any other State/central Govt. or else it will be liable for rejection at any stage. **For this bidder shall have to submit a duly notarized affidavit on stamp of Rs. 100/- in Annexure-III at page no. 40)**
- vii.** All the provisions of Rajasthan Transparency in Public Procurement Act, 2012, Rajasthan Transparency in Public Procurement Rules, 2013 and GF & AR also will be applicable in this bid.

Signature of Bidder



Section I

Bidding Forms

Section E (i) -

Technical Bid Submission Sheet

To,
The Principal Investigator,
RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, 2nd
Floor VCC Building, PGIVER
NH-11, Agra Road, Jamdoli, Jaipur-302031.

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Document, including Addenda No..... (If any)
- (b) We declare that we fulfill all the eligibility and qualification criteria in conformity with the Bidding Document and offer to supply in accordance with the specifications, the delivery schedule and other requirements as specified in the Bid document.
- I We have mentioned and provided all required details of the item quoted in the Technical Bid / Item Details as required in Part-A and Part-B of Section E (iii) that also include Warranty Period necessarily. The Technical Brochure Literature have been provided in support of the information which can also be cross checked online on company's Website at www._____
- (d) Our Bid shall be valid for a period of **180** days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- I If our Bid is accepted, we shall submit a Performance Security equivalent to **FIVE Percent** of the value of the items approved in our favour [PSUs shall submit the Performance Security Declaration] for the due performance of the contract within 15 days from the date of order. The performance security will be **TWO Percent for MSME firms.**
- (f) Our firm is not Debarred/Blacklisted/ Restricted by the state Government/ RAJUVAS or the Procuring Entity.
- (g) 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;
- (h) We agree to permit Government of Rajasthan or the Procuring Entity or their representatives to inspect our premises, accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by them;
- (i) We declare that we have complied with and shall continue to comply with the provisions of the Code of Integrity including Conflict of Interest as specified for Bidders in the Rajasthan Transparency in Public Procurement Act, 2012, the Rajasthan Transparency in Public Procurement Rules, 2013 and this Bidding Document during the procurement process and execution of the Contract till completion of all our obligations under the Contract;

Name: _____ In the capacity of: _____

Date: _____ Signed: _____

Duly authorized to sign the Bid for and on behalf of: _____

Complete Address _____

Tel: _____ Fax: _____ E-mail: _____

Signature of Bidder

Section E (ii):-

Format for Qualification Requirements

All Bidders are instructed not to fill up the formats in illegible hand writing. **Bidders should submit all the formats given below at Sr. No. 4 to 9 neatly written and duly signed by bidder so as to avoid any misunderstanding.**

I/We (Name)-----
 Designation -----having our Office at -----
 -----do declare that I/We have read all the conditions of the Bid floated by **P.I., RKVY PROJECT, "Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases"**, PGIVER, Jaipur for supply of Laboratory Equipment and agree to abide by all the conditions set forth there in.

I/We declare that we are participating in this bid in the capacity of
 I/We enclose valid Manufacturing License/Import license. The authorization by foreign Principal bearing No..... Valid up to in support therefore is enclosed with import license.

I/We further declare that the rates offered by us shall remain valid for the entire period of the Bid. I/We have enclosed the following documents as per details given against each:-

Name of Firm	Particulars
Capacity of Bidder(Manufacturer/Importer/ Authorized Distributor etc)	
Total Number of Pages in Bid Submitted	
Total Number of Products Quoted	
Total Bid Security for all Quoted item	
Name of Authorized Signatory	
Signature Specimen of Authorized Signatory	

List of documents (Bidder has to fill all the columns given below)

Sr. No.	Name of Document	Applicable to bidder or not (Yes/No)	Date of Issue	Date of Renewal	Valid Upto	Bidder should mark it as page number/ Enclosure number (As per direction in the bid document)
1	2	3	4	5	6	7
1.	Bank DD for Processing Fee (favour of MD, RISL, Jaipur)					37
2.	Bank DD for Bid Application Cost (to "P I RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR")					37
3.	Bid Security Deposit (to" P I RKVYRAFTAAR Establishment of BSL-" payable at JAIPUR")					37

Signature of Bidder

Sr. No.	Name of Document	Applicable to bidder or not (Yes/No)	Date of Issue	Date of Renewal	Valid Upto	Bidder should mark it as page number/ Enclosure number (As per direction in the bid document)
1	2	3	4	5	6	7
4.	GST Registration Certificate					Enclosure-10 (as Enclosure 10a, 10b, 10c and so on if the certificate has more than one page)
5.	Annual Turnover Statement (Annexure – I)					38
6.	VAT/ GST Clearance Certificate (Annexure – II)					39
7.	Affidavit for not being Black Listed (Annexure – III)					40
8.	Certificate of Non-conviction (Annexure – IV)					41
9.	Board Resolution (Annexure – V)					42
10.	Manufacturing License / and Product permission of quoted items					Enclosure-1 (As Enclosure-1a, 1b, 1c and so on if the certificate has more than one page)
11.	Duly Notarized Photocopy of IMPORT License in Form 10 with Form 41, if applicable					Enclosure-4 (As Enclosure-4a, 4b, 4c and so on if the certificate has more than one page)
12.	Duly Notarized photocopy of Authorization letter for participation in bid for distributes by Competent Authority					Enclosure-2 (As Enclosure-2a, 2b, 2c and so on if the certificate has more than one page)
13.	Bank Details (Annexure – VII)					45
14.	Competency Certificate issued under price preference rules & Registration Certificate for MSME of Rajasthan from Industries Dept.					Enclosure-3 (As Enclosure-3a, 3b, 3c and so on if the certificate has more than one page)
15.	Bank Guarantee (Annexure – VI)					43-44

Signature of Bidder

16.	License of Sale for Importer issued by Competent Authority duly Notarized					Enclosure-5 (As Enclosure-5a,5b,5c and so on if the certificate has more than one page)
17.	Declaration as per RTPP Act on Rs. 100/- STAMP Paper as per Format in Section E(v) Page no. 16					Enclosure-6 (As Enclosure-6a,6b,6c and so on if the certificate has more than one page)
18.	The Declaration Form in section “E (i & ii)” Signed by the Bidder.					Page No. 10-13 (This document itself)
19.	TECHNICAL BID /List & DETAILS of Items Quoted given in section “E (iii)” part A and B Page no. 14-15					Enclosure- 7 (As Enclosure-7a,7b,7c and so on if the certificate has more than one page)
20.	Printed TECHNICAL Literature / Brochure of Products quoted					Enclosure-8 (As Enclosure-8a,8b,8c and so on if the certificate has more than one page)
21.	European CE/ IVD conformity/ US FDA/UL/ISO/IEC61010/ NSF 49/EN 12469/ MIQE/21 CFR part 11 Certification etc					Enclosure-9 (As Enclosure-9a,9b,9c and so on if the certificate has more than one page)

Note

1. If any document doesn't have date of issue or last date of validity, **write Not Applicable in respective columns.**
2. Ensure that the scanned copies of documents are clearly readable & legible.
3. Ensure to mark and highlight the Technical Specification as per Bid Catalogue wherever they are present and mark Catalogue Tender Serial on the Brochure also to indicate the item quoted. Failing to provide complete details in 'Technical Bid/Detail of Items' may result in disqualification of the BID.
4. All the specification points should be present in the literature provided. These **specifications will preferably be matched at official website** of the Company as desirable by the technical committee.
5. Firms may at their own Demonstrate the Equipment/materials etc. in the institute during tender period for better understanding of functioning and specifications of the equipment. Firms may also be **asked for demonstration of equipment/materials etc** if deemed required by the Technical Committee whenever necessary.

Signature of Bidder

Section E (iii): –

TECHNICAL BID / DETAILS OF QUOTED BY BIDDER

Note: - This format has to **BE COMPLETELY FILLED** and provide **on LETTER HEAD necessarily**. Do not write by hand; preferably provide it neatly typed form to avoid misunderstanding.

It is compulsory for all bidders to fill ALL THE ITEMS (all the items- required for BSL-3 Lab should be quoted by single firm, partial bids should not accepted), Quoted by Bidders and upload on the E- proc portal otherwise bid will be TREATED CANCELLED AND REJECTED.

Part- A Technical Bid Details

Name of Firm	
Quoted in the CAPACITY of (Manufacturer / Importer / Authorized Distributor etc.....)	
Technical Bid in format at E (iii) <u>Part B</u> , submitted <u>separately</u> for all quoted items (Yes / No)	
Literature / Brochure of ALL the Quoted items enclosed (Yes / No)	
USER Details and Past Supply orders enclosed for rationality / reference (Yes / No)	

Name: _____ In the capacity of: _____

Date: _____ Signed: _____

Duly authorized to sign the Bid for and on behalf of: _____

Complete Address _____

Tel: _____ Fax: _____ E-mail: _____

Signature of Bidder



Part- B TECHNICAL BID for Items QUOTED
(Submit as Separate Sheet on LETTER HEAD for each item)

<p>Tender Serial No: _____</p> <p>Name of ITEM – _____</p> <p>NOTE: Attach all related Brochure / Literature and at least 3 recent Establishment of BSL-3 lab supply orders & completion certificate received for the quoted item with copy of BILL and USER Details</p>	<p>Make / Brand: _____</p> <p>Model No.: _____</p> <p>European CE/ IVD conformity/ US FDA/UL/ISO/IEC61010/ NSF 49/EN 12469/ MIQE/21 CFR part 11 certify: _____ (Write correct)</p>		
<p>Quoted in the capacity of (?): _____ (Manufacturer / Importer/Authorize Distributor etc.)</p> <p>Valid Manufacturing / Import License / Authorization certificate : _____ (Yes/No)</p> <p>Page no. at where License / Authorization certificate is attached : <u>Pg No.</u> _____</p>			
<p>Brochure / Technical Literature of quoted Item provided: _____ (Yes / No)</p> <p>Brochure / Technical Literature of quoted Item placed on PAGE No.: <u>Pg</u> _____ to <u>Pg</u> _____</p> <p>Website Link of Manufacturer for cross-checking Technical Specs of Item quoted:- <www. _____></p>			
Technical Specification Offered by FIRM	Compliance Statement		
<u>Specification offered</u>	Specs. Offered by firm are fully/ partially in agreement with those required (tick the correct one)		
Warranty offered = _____ Years			
Name and Contact Details of USER	Make & Model (supplied to the User)	Year of Supply / Installation	Copy of Supply Order enclosed (Yes / No)
<p>Name 01 : Designation : _____ Institute : _____ USER Mobile: +91- _____ User E-mail ID: _____</p>			(on Pg No. _____)
<p>Name 02 : Designation : _____ Institute : _____ USER Mobile: +91- _____ User E-mail ID: _____</p>			(on Pg No. _____)
<p>Name & Specimen Signature of Officer of the Company (who is authorized to make correspondence with Department) Name:</p> <p>Date: ____/____/2023 Authorized Signatures: _____ (with Seal)</p>			

Note – Write NA only for information / document is Not Available

Signature of Bidder

Section E (iv)

Financial/ Price Bid Submission Sheet

To,
The Principal Investigator,
RKVY Project, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, 2nd Floor VCC Building, PGIVER
NH-11, Agra Road, Jamdoli, Jaipur-302031.

We, the undersigned, declare that: -

- a) We have examined and have no reservations to the Bidding Document, including Addenda, if any
- b) We offer to supply in conformity with the Bidding Document and in accordance with the specifications, the delivery schedule and other requirements as specified in Bid document.
- c) It will be our responsibility to ensure the viability and sanctity of all clearances/ licenses/ permissions / and Certificates provided in support of our financial and business health and ethics.
- d) (For Distributors) We have submitted "Authorization Certificate" on Original Letter head of the manufacturer/importer and Statement of Period of Warranty has also been authorized to us by the Manufacturer / Importer.
- e) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name: _____

In the capacity of: _____

Signed: _____

Date: _____

Duly authorized to sign the Bid for and on behalf of: _____

Complete Address _____

Tel: _____ Fax: _____ E-mail: _____

Signature of Bidder



Handwritten signatures in blue ink, including a circular stamp on the left and several distinct signatures to the right.

Section E (v)

Declaration by the Bidder (under Section 7 and 11 RTPP Act, 2012)

(On Non-Judicial Stamp of Rs. 100/- duly attested by Notary Public)

In relation to our Bid submitted to **P.I., RKVY Project, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** for **ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS** in response to their Notice Inviting Bids No. F / ()PGIVER /CDSRZ /2022-23/358 Dated: 25-03-2023. We hereby declare under Section 7 and 11 of the Rajasthan Transparency in Public Procurement Act, 2012, that:

We are eligible and possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entity; Declaration is given below as per Finance Department order F.1 (8) Vitta/GF&AR/2011 dated 04.02.2013.

Declaration by the Bidder

In relation to my/our Bid submitted to **P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** for **ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS** in response to their Notice Inviting Bids No. F / ()PGIVER /RKVY-CDSRZ /2022-23/358 Dated: 25-03-2023. I/we hereby declare under Section 7 and 11 of Rajasthan Transparency in Public Procurement Act, 2012, that:

- (a) I/we possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entity;
- (b) I/we have fulfilled my/our obligation to pay such of the taxes payable to the Union and the State Government or any local authority as specified in the Bidding Document or applicable at time of bidding.
- 1 I/we are not insolvent, in receivership, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceedings for any of the foregoing reasons;
- (d) I/we do not have, and our directors and officers have not been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
- 1 I/we do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition;
- 2. We have complied and shall continue to comply with the Code of Integrity as specified in the Rajasthan Transparency in Public Procurement Act, the Rajasthan Transparency in Public Procurement Rules and this Bidding Document, till completion of all our obligations under the Contract; as per Finance Department order F.1(8) Vitta / GF&AR /2011 dated 04.02.2013.
- 3. We agree that Grievance Redressed process during procurement process will be as per RTPP Act, 2012 & Rules, 2013 and Finance Department order F.1(8) Vitta/GF&AR/2011 dated 04.02.2013.
- 4. We agree that additional condition of contract will be as per Declaration Finance Department order F.1(8) Vitta/GF&AR/2011 dated 04.02.2013.

Date:
Place:
Address:

Signature of bidder
Name:
Designation:

Signature of Bidder

Section (F)**Condition of Contract and Contract Forms****GENERAL TERMS AND CONDITIONS OF TENDER & CONTRACT**

Definitions-

For the purpose of clarity, the following words and expressions shall have the meanings hereby assigned to them: -

- a) Act & Rules- means the Rajasthan transparency in public procurement act 2012, Rules 2013 & GF&AR.
- b) "Contract" means the Agreement entered into between the Purchaser and the successful/ selected bidder(s), together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein. "Contract Documents" means the documents listed in the Agreement, including any amendments thereto.
- c) "Contract Price" means the price payable to the successful/ selected bidder as specified in the Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- d) "Day" means a calendar day.
- e) "Delivery" means the transfer of the Goods from the successful/ selected bidder to the Purchaser in accordance with the terms and conditions set forth in the Contract.
- f) "Completion" means the fulfillment of the related services by the successful/ selected bidder in accordance with the terms and conditions set forth in the Contract.
- g) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the successful/ selected bidder is required to supply to the Purchaser under the Contract.
- h) "Purchaser" means the entity purchasing the Goods and related services, as specified in the bidding document.
- i) "Related Services" means the services incidental to the supply of the goods, such as insurance, installation, guarantee & warranty support and other similar obligations of the successful/ selected bidder under the Contract.
- j) "Subcontractor" means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to whom any part of the Goods to be supplied or execution of any part of the related services is subcontracted by the successful/ selected bidder(s).
- k) "The Site," where applicable, means the place of delivery/installation of ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS at Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur.

1. SUBMISSION OF ONLINE BID FORMS

- a. Online Bid super scribed "**Bid for ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS** shall be submitted in two parts i.e., Technical Bid (Part-I) and Financial/Price Bid (Part-II) to the to **P.I., RKVY PROJECT, "Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan).**
- b. **Rates shall be mentioned both in words and figures.** The rates should mention Goods and Services Tax (CGST, SGST & IGST) separately, **including latest AMENDMENTS and as per applicable rules.**
- c. **The Bidder should essentially sign on every page of the Bid document, terms and conditions as a token of his acceptance of all the terms & conditions of the Bid in to-to, and submit the same online. Non receipt of the so desired Bid document duly signed by the Bidder shall render such proposals in the Bid to be rejected.**
- d. Bid will be opened online in the presence of such Bidders who choose to be present.

Signature of Bidder

- e. Financial Bids of those Bidders, who qualify in Technical Bid will only be considered for Price Comparison & Finalization of Rates and Firms.
- f. All enclosures/disclosures in the Technical Bid must be PAGE NUMBERED and shall be filled in meticulously with precision and with documentary evidence wherever necessary.
- g. All the required documents / enclosures will have to be uploaded & attached along with Technical Bid (Part-I of the Bid) only. Eligibility for Financial Bid (Part-II of the Bid) will depend on the outcome of documents uploaded / electronically attached to Technical Bid which includes Technical Bid detail, user list and past supply orders.
- h. **Financial Bid (Part-II of the Bid) shall contain only the details of rates offered.** The Bid form must be duly filled as per instructions given on the e-procurement site online only; please do not mention your rates except in the format given on-line at above site. (<http://eproc.rajasthan.gov.in>)
- i. BOQ (Financial bid) giving the rates for various items in individual should be uploaded separately as Part – II here after called. “Financial Bid”, which is to be filled online only as per BOQ.
- j. The dates scheduled for Receipt & Opening of Bid are fixed. However, to **P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** reserves the right of postponing the date of opening the Technical or Financial bids or both in the event of any unforeseen circumstances.
- k. If the last date for submission of Bid and opening of Bid happens to be a public holiday, the notified dates shall automatically get postponed to the next working date.
- l. Failure to upload the properly filled and signed Bid (Part-I & II) shall render the Bid invalid.
- m. **P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** shall not be held responsible for non-receipt of the Bid due to failure in uploading thereof for any reason whatsoever.
- n. In the event of bid being submitted by a firm it must be duly signed by an authorized signatory. In the event of a partnership firm, it must be signed by every partner of the firm or on its behalf by a person holding a power of attorney authorizing him to do so and in the case of company the bid should be executed in the manner laid in the Articles of Association. A letter of resolution must be attached in favour of the authorized signatory. Any change in the Constitution of the Firm/Company shall be notified forthwith by the Bidder to **P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** and such change shall not relieve any former member of the Firm/ Company from the liability under the contract. No new partner/ partners shall be accepted in the Firm/ Company by the Bidder/Biding firm in respect of the contract unless he/ they agree to abide by all its terms and conditions and submit to **P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** a written agreement to this effect. Receipt or acknowledgement of any partner subsequently accepted as above will bind all of them and will be sufficient to discharge for any of the purposes of the contract.

Partnership firm should attach certificate of registration with registrar of firms.

S. Income Tax and VAT/GST/CGST Registration and VAT/GST/CGST Clearance Certificate-

No Bidder who does not hold a valid Permanent Account Number (PAN)/ Tax Identification Number (TIN) from Income Tax department, Gol and who is not registered under the Sales Tax Act prevalent in the State where his business is located shall bid. The VAT/GST Registration Number should be quoted and a VAT clearance certificate from the Commercial Taxes Officer of the Circle concerned valid on the date of submission of bid shall be submitted without which the bid is liable to rejection. The bidder quoting Rajasthan VAT/GST should have valid VAT/GST registration in the state of Rajasthan and he should mention the same VAT/GST registration number in the bid document.

Signature of Bidder

3. Contract Documents: Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.

4. Interpretation-

- a. If the context so requires it, singular means plural and vice versa.
- b. Entire Agreement: The Contract constitutes the entire agreement between the Purchaser and the selected bidder and supersedes all communications, negotiations and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.
- c. Amendment: No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.
- d. Non-waiver: Subject to the condition (f) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- e. Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.
- f. Severability: If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5. Language-

The Contract as well as all correspondence and documents relating to the Contract exchanged by the successful/ selected bidder and the Purchaser, shall be written in Hindi &/or English language only. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the special conditions of the contract, in which case, for purposes of interpretation of the Contract, this translation shall govern.

A. The successful/ selected bidder shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

6. Eligible Goods and Related Services-


For purposes of this Clause, the term "goods" includes all of the commodities, raw material, machinery and equipment, and/or other materials; and "related services" includes services such as insurance, warranty support and other similar obligations of the successful/ selected bidder(s) under the Contract.

a. The **ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS** quoted by the successful/ selected bidder must be associated with specific make and model numbers, item code and names and with printed literature describing configuration and functionality. Any deviation from the printed specifications should be clearly mentioned in the offer document by the bidder/ supplier.

b. The OEM/ Bidder of the quoted product must have its own registered spares depot in India having adequate inventory of the equipment being quoted for providing the necessary spares within next business day or maximum 30 hours.

c. Bidder must quote products in accordance with above clause "Eligible goods and related services".

Signature of Bidder



7. Notices-

- a. Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the contract. The term "in writing" means communicated in written form with proof of dispatch and receipt.
- b. A Notice shall be effective when delivered or on the Notice's effective date, whichever is later.

8. Governing Law-

- a. The Contract shall be governed by and interpreted in accordance with the laws of the Rajasthan State/ the Country (India), unless otherwise specified in the contract.

9. Scope of Supply-

- a. Subject to the provisions in the bidding document and contract, the goods and related services to be supplied (120 days) shall be as specified in the bidding document.
- b. Unless otherwise stipulated in the Contract, the scope of supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining delivery and completion of the goods and related services as if such items were expressly mentioned in the Contract.
- c. The bidder shall not quote and supply any hardware/ software that is likely to be declared as End of Sale for twelve months and End of Service/ Support for twenty-four months from the date of bid submission. If any of the hardware/ software is found to be declared as End of Sale/ Service/ Support in the period mentioned above, then the bidder shall replace all such hardware/ software with the latest ones having equivalent or higher specifications without any financial obligation to the purchaser.
- d. In any unforeseen conditions, the supply time period will be extended without any liquidated damages by the purchase committee.

10. Delivery-

- Subject to the conditions of the contract, the delivery of the goods installation and completion of the related services shall be in accordance with the delivery and completion schedule specified in the bidding document. The details of supply/ shipping and other documents to be furnished by the successful/ selected bidder are specified in the bidding document and/ or contract.
- b. The contract for the supply/ installation can be repudiated at any time by the purchase officer, if the supplies/ installation is not made to his satisfaction after giving an opportunity to the bidder of being heard and recording the reasons for repudiation.
 - c. The Supplier/ selected bidder shall arrange to supply / installation the ordered materials/ installation system as per specifications within the specified delivery/ completion period at BSL-3 lab, Centre for Diagnosis, Surveillance & Response of Zoonotic Diseases (CDSRZ), VCC 2nd floor, Post Graduate Institute of Veterinary Education and Research (PGIVER), Jaipur, Rajasthan.

11. Selected bidder's Responsibilities-

The Supplier/ Selected bidder shall supply all the goods and related services included in the scope of supply in accordance with the provisions of bidding document and/ or contract.

12. Purchaser's Responsibilities-

- a. Whenever the supply of goods and related services requires that the Supplier/ Selected bidder(s) obtain permits, approvals, and import and other licenses from local public authorities, the Purchaser shall, if so, required by the Supplier/ Selected bidder(s), make its best effort to assist the Supplier/ Selected bidder in complying with such requirements in a timely and expeditious manner.

Signature of Bidder



13. Contract Price-

- a. The Contract Price shall be paid as specified in the contract subject to any additions and adjustments thereto, or deductions there from, as may be made pursuant to the Contract.
- b. Prices charged by the Supplier/ Selected bidder for the Goods delivered and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier/ Selected bidder in its bid.

14. Recoveries from Supplier/ Selected bidder-

- a. Recovery of liquidated damages, short supply, breakage, rejected articles shall be made ordinarily from bills.
- b. The Purchase Officer shall withhold amount to the extent of short supply, broken/ damaged or for rejected articles unless these are replaced satisfactorily. In case of failure to withhold the amount, it shall be recovered from his dues and performance security deposit available with Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur.
- c. The balance, if any, shall be demanded from the Supplier/ Selected bidder and when recovery is not possible, the Purchase Officer shall take recourse to law in force.

15. Taxes & Duties-

- a. The income tax, service tax, value added tax, /GST etc., if applicable, shall be deducted at source from the payment to the Supplier/ Selected bidder as per the law in force at the time of execution of contract.
- b. The entry tax, if applicable shall be deducted at source and deposited in the government treasury in proper revenue receipt head of account.
- c. For goods supplied from outside India, the successful/ selected bidder shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the country.
- d. For goods supplied from within India, the successful/ selected bidder shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- e. Revision in GST shall be on account of the tendering authority if it has been asked for separately in the financial bid and is not taken into account for the purpose of comparison of bids. If, however, they have not been asked for separately, any benefit or additional cost will be on account of the bidder(s). Revision of any other tax or duty shall be on account of the bidder(s).
- f. If any tax exemptions, reductions, allowances or privileges may be available to the successful/ selected bidder in India, the Purchaser shall use its best efforts to enable the successful/ selected bidder to benefit from any such tax savings to the maximum allowable extent.

16. Performance Security Deposit (PSD):

- a. In case of successful/ selected bidder(s), the EMD will be adjusted in arriving at the amount of the PSD.
- b. The successful/ selected bidder shall, within fifteen (15) days from the issue of the letter of acceptance provide a PSD at the rate of 5% of the total agreed/ ordered project value for the due performance of the Contract in the amounts and currencies specified in the work order.
- c. The proceeds of the PSD shall be payable to the Purchaser as compensation for any loss resulting from the successful/ selected bidder failure to complete its obligations under the Contract.
- d. Form of PSD: Successful bidder will have to deposit PSD in the form of DD/Bank Guarantee (as per Annexure 9) (Unconditional & Irrevocable) in favor of Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur

Signature of Bidder



e. Refund of PSD: PSD shall be refunded after three (03) month of the successful completion of the contract period i.e., three (03) month after expiry of “Warranty and guarantee Services”

f. Forfeiture of PSD: PSD shall be forfeited in the following cases: -

- i. When any terms and condition of the contract is breached.
- ii. When the Supplier/ Selected bidder fails to commence supply or stops making the supplies or fails to provide deliverables after partially executing the purchase/ work order.
- iii. To adjust any dues against the firm from any other contract with Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur.

g. No interest will be paid by Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur on the amount of EMD and PSD.

h. Proper notice will be given to the Supplier / Selected bidder with reasonable time before EMD/ PSD is forfeited.

i. Forfeiture of EMD/PSD shall be without prejudice to any other right of Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur to claim any damages as admissible under the law as well as to take such action against the Supplier/ Selected bidder such as severing future business relation or black listing, etc.

17. Copyright-

The copyright in all drawings, source code, design documents, and other materials containing data and information furnished to the Purchaser by the Supplier / Selected bidder herein shall remain vested in the Selected bidder(s), or, if they are furnished to the Purchaser directly or through the Supplier/ Selected bidder by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

18. Confidential Information-

a. The Purchaser and the Supplier/ Selected bidder shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any drawings, documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract.

b. The Supplier/ Selected bidder may furnish to its Subcontractor, if permitted, such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier/ Selected bidder shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier/ Selected bidder(s).

c. The Purchaser shall not use such documents, data, and other information received from the Supplier/ Selected bidder for any purposes unrelated to the Contract. Similarly, the Supplier/Selected bidder shall not use such documents, data, and other information received from the Purchaser for any purpose other than the design, procurement, or other work and services required for the performance of the Contract.

d. The obligation of a party under sub-clauses above, however, shall not apply to information that: -

- i. the Purchaser or Supplier/ Selected bidder need to share with Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur other institutions participating in the Contract;
- ii. now or hereafter enters the public domain through no fault of that party;
- iii. can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- iv. Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

e. The above provisions shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the supply or any part thereof.

Signature of Bidder

f. The provisions of this clause shall survive completion or termination, for whatever reason, of the Contract.

19. Sub-contracting-

a. The bidder shall not assign or sub-let his contract or any substantial part thereof to any other agency without the permission of Purchaser/ Tendering Authority.

20. Specifications and Standards-

a. All articles supplied shall strictly conform to the specifications, trademark laid down in the tender form and wherever articles have been required according to ISI/ ISO/ other applicable specifications/ certifications/ standards, those articles should conform strictly to those specifications/ certifications/ standards. The supply shall be of best quality and description. The decision of the competent authority/ purchase committee whether the articles supplied conform to the specifications shall be final and binding on the supplier/ selected bidder(s).

b. Technical Specifications. The Supplier/ Selected bidder shall ensure that the goods and related services comply with the technical specifications and other provisions of the Contract.

- i. The Supplier/ Selected bidder shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
- ii. The goods and related services supplied under this Contract shall conform to the standards mentioned in bidding document and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the country of origin of the Goods.

c. Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the bidding document. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with the general conditions of the contract.

21. Packing and Documents-

a. The Supplier/ Selected bidder 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. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the Goods and the absence of heavy handling facilities at all points in transit.

b. The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the contract, and in any other instructions ordered by the Purchaser.

c. The Bidder shall be responsible for any defect in packing and damage during transportation and installation.

22. Insurance-

a. The Goods supplied under the Contract shall be fully insured against loss by theft, destruction or damage incidental to manufacture or acquisition, transportation, storage, fire, flood, under exposure to weather and delivery at the designates project locations, in accordance with the applicable terms. The insurance charges will be borne by the supplier and Purchaser will not be required to pay such charges if incurred.

b. The goods will be delivered at the FOR destination in perfect condition.

23. Transportation-

a. The supplier/ selected bidder shall be responsible for the proper packing so as to avoid damage under normal conditions of transport by sea, rail and road or air and delivery of the material in the good condition to the consignee at destination. In the event of any loss, damage, breakage or leakage or any shortage the bidder shall be liable to make good such loss and shortage found at the checking/ inspection of the material by the consignee. No extra cost on such account shall be admissible.

b. All goods must be sent freight paid through Railways or goods transport.

Signature of Bidder



24. Rejection-

- a. Articles not approved during inspection or testing shall be rejected and will have to be replaced by the selected bidder at his own cost within the time fixed by the Purchase Officer.
- b. If, however, due to exigencies of Purchase Committee's work, such replacement either in whole or in part, is not considered feasible, the Purchase Officer after giving an opportunity to the selected bidder of being heard shall for reasons to be recorded, deduct a suitable amount from the approved rates. The deduction so made shall be final.
- c. The rejected articles shall be removed by the selected bidder within 15 days of intimation of rejection, after which Purchase Officer shall not be responsible for any loss, shortage or damage and shall have the right to dispose of such articles as he thinks fit, at the supplier's/ bidder's/ selected bidder's risk and on his account.

25. Extension in Delivery Period and Liquidated Damages (LD)-

- a. Except as provided under clause "Force Majeure", if the supplier/ selected bidder fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in (d) below.
- b. The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the supplier/ selected bidder shall arrange goods supply and related services within the specified period.
- c. Delivery and completion period may be extended with or without liquidated damages, if the delay in the supply of goods or service is on account of hindrances beyond the control of the supplier/ selected bidder(s).
 - i. The supplier/ selected bidder shall request in writing to the purchaser giving reasons for extending the delivery period of service, if he finds himself unable to complete the supply of goods or service within the stipulated delivery period or is unable to maintain prorate progress in the supply of goods or service delivery. This request shall be submitted as soon as a hindrance in delivery of goods and service occurs or within 15 days from such occurrence but before expiry of stipulated period of completion of delivery of goods and service after which such request shall not be entertained.
 - ii. The purchaser shall examine the justification of causes of hindrance in the delivery of goods and service and the period of delay occurred due to that and recommend the competent authority on the period of extension which should be granted with or without liquidated damages.
 - iii. Normally, extension in delivery period of goods and service in following circumstances may be considered without liquidated damages.
 - iv. When delay has occurred due to delay by Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER, Jaipur in performing any of the duties to be performed by them as mentioned in the Section titled "Scope of Work".
- ❖ When delay has occurred in supply of materials etc. if these were required to be supplied to the supplier or service provider by the Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur as per terms of the contract.
- ❖ If the competent authority agrees to extend the delivery period/ schedule, an amendment to the contract with suitable denial clauses and with or without liquidated damages, as the case may be, shall be issued. The amendment letter shall mention that no extra price or additional cost for any reason, what so ever beyond the contracted cost shall be paid for the delayed supply of goods and service.
 - i. It shall be at the discretion of the concerned authority to accept or not to accept the supply of goods and/ or services rendered by the contractor after the expiry of the stipulated delivery period, if no formal extension in delivery period has been applied and granted. The competent authority shall have right to cancel the contract with respect to undelivered goods and/ or service.
 - ii. If Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER, Jaipur is in need of the good and/ or service rendered after expiry of the stipulated delivery period, it may accept the services and issue a letter of extension in delivery period with usual liquidated damages and denial clauses to regularize the transaction.

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In case of extension in the delivery / installation and/ or completion period is granted with full liquidated damages, the recovery shall be made on the basis of following percentages of value of goods and/ or service which the supplier/ selected bidder has failed to supply or complete: -

No.	Condition	LD %*
I.	Delay up to one fourth period of the prescribed installation/delivery period of installation of ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS.	2.5 %
II.	Delay exceeding one fourth but not exceeding half of the prescribed installation/delivery period of installation of ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS.	5.0 %
III.	Delay exceeding half but not exceeding three fourth of the prescribed installation/delivery period of installation of ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS.	7.5 %
IV.	Delay exceeding three fourth of the prescribed installation/delivery period of installation of ESTABLISHMENT OF BSL-3 LABORATORY ON TURNKEY BASIS.	10.0 %

*

- I. Fraction of a day in reckoning period of delay in supplies and completion of work shall be eliminated, if it is less than half a day.
- II. The maximum amount of liquidated damages shall be 10% of the contract amount

26. Authenticity of Equipment/Materials/Instruments-

a. The selected bidder shall certify (as per Annexure-6) that the supplied goods are brand new, genuine/ authentic, not refurbished, conform to the description and quality as specified in this bidding document and are free from defects in material, workmanship and service.

b. If during the contract period, the said goods be discovered counterfeit/ unauthentic or not to conform to the description and quality aforesaid or have determined (and the decision of the Purchase Officer in that behalf will be final and conclusive), not with state level the fact that the purchaser may have inspected and/ or approved the said goods, the purchaser will be entitled to reject the said goods or such portion thereof as may be discovered not to conform to the said description and quality, on such rejection the goods will be at the selected bidder’s risk and all the provisions relating to rejection of goods etc., shall apply. The selected bidder shall, if so called upon to do, replace the goods etc., or such portion thereof as is rejected by Purchase Officer, otherwise the selected bidder shall pay such damage as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Purchase Officer in that behalf under this contract or otherwise.

c. Goods accepted by the purchaser in terms of the contract shall in no way dilute purchaser’s right to reject the same later, if found deficient in terms of this clause of the contract.

27. Patent Indemnity-

a. The supplier/ selected bidder shall, subject to the Purchaser’s compliance with sub-clause (b) below, 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: -

i. the installation of the Goods by the supplier/ selected bidder or the use of the Goods in the country where the Site is located; and

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ii. The sale in any country of the products produced by the Goods. Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the supplier/ selected bidder(s), pursuant to the Contract.

b. If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to above, the Purchaser shall promptly give the supplier/ selected bidder a notice thereof, and the supplier/ selected bidder 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.

c. If the supplier/ selected bidder fails to notify the Purchaser within thirty (30) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.

d. The Purchaser shall, at the supplier's/ selected bidder's request, afford all available assistance to the supplier/ selected bidder in conducting such proceedings or claim, and shall be reimbursed by the supplier/ selected bidder for all reasonable expenses incurred in so doing.

e. The Purchaser shall indemnify and hold harmless the supplier/ selected bidder and its employees, officers, and Subcontractors (if any) 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 supplier/ selected bidder 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 arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

28. Limitation of Liability-

Except in cases of gross negligence or willful misconduct: -

a. neither party shall be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier/ selected bidder to pay liquidated damages to the Purchaser; and

b. the aggregate liability of the supplier/ selected bidder to the Purchaser, whether under the Contract, in tort, or otherwise, shall not exceed the amount specified in the Contract, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier/ selected bidder to indemnify the Purchaser with respect to patent infringement.

29. Change in Laws & Regulations-

a. Unless otherwise specified in the Contract, if after the date of the Invitation for Bids, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in Rajasthan/ India, where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/ or the Contract Price shall not be change. Not with state level the forgoing such additional or reduced cost shall not be separately paid or credited to the bidder.

30. Force Majeure-

a. The supplier/ selected bidder shall not be liable for forfeiture of its PSD, LD, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

b. For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the supplier/ selected bidder that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the supplier/

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selected bidder(s). 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.

c. If a Force Majeure situation arises, the supplier/ selected bidder shall promptly notify to the Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur in writing of such conditions and cause thereof within 15 days of occurrence of such event. Unless otherwise directed by Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur, the supplier/ selected bidder shall continue to perform its obligations under the contract as far as reasonably practical.

D. If the performance in whole or part or any obligation under the contract is prevented or delayed by any reason of Force Majeure may terminate the contract without any financial repercussion on either side.

e. In case a Force Majeure situation occurs with the Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur may take the case with the supplier/ selected bidder on similar lines.

31. Change Orders and Contract Amendments-

a. The Purchaser may at any time order the supplier/ selected bidder through Notice in accordance with clause “Notices” above, to make changes within the general scope of the Contract in any one or more of the following: -

i. Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;

ii. The method of shipment or packing;

iii. The place of delivery; and

iv. The related services to be provided by the supplier/ selected bidder(s).

b. If any such change causes an increase or decrease in the cost of, or the time required for, the supplier’s/ selected bidder’s performance of any provisions under the Contract no additional cost shall be allow under the contract.

32. Termination:

a. Termination for Default:

i. The tender sanctioning authority of Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur may, without prejudice to any other remedy for breach of contract, by a written notice of default, of at-least 30 days, sent to the supplier/ selected bidder(s), terminate the contract in whole or in part: -

- ❖ If the supplier/ selected bidder fails to deliver any or all quantities of the service within the time period specified in the contract, or any extension thereof granted by Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur; or
- ❖ If the supplier/ selected bidder fails to perform any other obligation under the contract within the specified period of delivery of service or any extension granted thereof; or If the supplier/ selected bidder(s), in the judgment of the Purchaser, is found to be engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the contract.
- ❖ If the supplier/ selected bidder commits breach of any condition of the contract.

If Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur terminates the contract in whole or in part, amount of PSD may be forfeited.

iii. Before cancelling a contract and taking further action, advice of senior most finance person available in the office and of legal adviser or legal assistant posted in the office, if there is one, may be obtained.

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b. Termination for Insolvency:

Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur may at any time terminate the Contract by giving a written notice of at-least 30 days to the supplier/ selected bidder(s), if the supplier/ selected bidder become bankrupt or otherwise insolvent. In such event, termination will be without compensation to the supplier/ selected bidder(s), provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur.

c. Termination for Convenience:

i. Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur, by a written notice of at least 30 days sent to the supplier/ selected bidder(s), may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the supplier/ selected bidder under the Contract is terminated, and the date upon which such termination becomes effective.

ii. Depending on merits of the case the supplier/ selected bidder may be appropriately compensated on mutually agreed terms for the loss incurred by the contract if any due to such termination.

iii. The Goods that are complete and ready for shipment within twenty-eight (28) days after the supplier's/ selected bidder's receipt of the 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/ selected bidder an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the supplier/ selected bidder(s).

33. Settlement of Disputes-

a. General: If any dispute arises between the supplier/ selected bidder and Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur during the execution of a contract that should be amicably settled by mutual discussions. However, if the dispute is not settled by mutual discussions, a written representation will be obtained from the supplier/ selected bidder on the points of dispute. The representation so received shall be examined by the concerned Procurement Committee which sanctioned the tender. The Procurement Committee may take legal advice of a counsel and then examine the representation. The supplier/ selected bidder will also be given an opportunity of being heard. The Committee will take a decision on the representation and convey it in writing to the supplier/ selected bidder(s).

b. State level Committee for Settlement of Disputes: If a question, difference or objection arises in connection with or out of the contract/ agreement or the meaning of operation of any part, thereof or the rights, duties or liabilities of either party have not been settled by mutual discussions or the decision of tender sanctioning Procurement Committee.

c. Procedure for reference to the Procurement Committee: The supplier/ selected bidder shall present his representation to the Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur. It decision which shall be final and binding both on the bidder and Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur. If the decision not acceptable to the bidder the matter shall be refer to the Vice Chancellor, RAJUVAS, Bikaner for further decision.

d. Legal Jurisdiction: All legal proceedings arising out of any dispute between both the parties regarding a contract shall be settled by a competent court having jurisdiction over the place, only at Jaipur. Where agreement has been executed and by no other court, after decision of the state level committee for settlement of disputes.

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If any Bidder is aggrieved that, any decision of the Procuring Entity is in contravention to the provision of the Act or the Rules or the Guidelines issued there under, he may file an appeal to the first or second Appellate Authority, within a period of ten days from the date of such decision, clearly giving the specific ground on which, he feels aggrieved.

Fee for first appeal shall be Rs. 2500 and for second appeal shall be Rs 10,000

- (a) First Appellate Authority- Comptroller, Rajasthan University of Veterinary and Animal Sciences Bikaner.
- (b) Second Appellate Authority- Vice Chancellor, Rajasthan University of Veterinary and Animal Sciences, Bikaner.

34. Payment Terms and Schedule-

- a. Payment schedule – Payments to the bidder, after successful completion of the installation of Establishment of BSL-3 laboratory on Turnkey Basis to the Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur. The payment shall be made by the Principal Investigator, Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases at CDSRZ, PGIVER, Jaipur.
- b. The supplier's/ selected bidder's request for payment shall be made to the purchaser in writing, accompanied by invoices describing, as appropriate, the goods delivered and related services performed, and by the required documents submitted pursuant to general conditions of the contract and upon fulfillment of all the obligations stipulated in the Contract.
- c. Due Payments shall be made promptly by the purchaser, generally within thirty (30) days after submission of an invoice or request for payment by the supplier/ selected bidder(s), and its acceptance by the purchaser.
- d. The currency or currencies in which payments shall be made to the supplier/ selected bidder(s) under this Contract shall be Indian Rupees (INR) only.
- e. All remittance charges will be borne by the supplier/ selected bidder(s).
- f. In case of disputed items, disputed amount shall be withheld and will be paid only after settlement of the dispute.
- g. Payment in case of those goods which need testing shall be made only when such tests have been carried out, test results received conforming to the prescribed specification.
- h. Advance and running Payments will not be allowed.
- i. Any penalties/ liquidated damages, as applicable, for delay and non-performance, as mentioned in this bidding document, will be deducted from the payments for the respective milestones.
- j. Taxes (work contract tax, service tax, VAT, GST, CGST, income tax, etc.), as applicable, will be deducted at source, from due payments, as per the prevalent rules and regulations.

35. Validity of Bids – Bids shall be valid for a Period of 120 days from the date of opening of technical bid.

36. All the provisions of Rajasthan Transparency in Public Procurement Act, 2012, Rajasthan Transparency in Public Procurement Rules, 2013 and GF & AR will be applicable in this bid.

Signature of Bidder



(ii) Special Conditions of Contract**1. Documents to be electronically attached / Up-loaded in the Technical Bid**

The Bidder should essentially upload the following attachments / certificates for the items Bided along with the Bid document here after called "Part – I".

- (1) Proof of Processing Fees 2000 /- paid in favour of **MD RISL, Jaipur**. (Please enclose this document at Page no.30)
- (2) Proof of Bidding Application Cost Rs. 2000/- (Rs. 1000/- for MSME of Rajasthan) paid in favour of **"P I RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR**" (Please enclose this document at Page no.37)
- (3) Proof of Bid Security paid in favor of **"P I RKVYRAFTAAR Establishment of BSL-3" payable at JAIPUR**" (Please enclose this document at Page no.37)
- (4) GST Certificate, (Bidder should mark it as Enclosure-10; If the certificate has more than one page, then please mark each page as Enclosure-10a, 10b, 10c and so on at upper right corner)
- (5) Annual Turnover Statement for last three years in Annexure –I (Please enclose this document as Page no.38)
- (6) VAT/ GST Clearance Certificate up to March, 2022 in Annexure –II (Please enclose this document as Page no.39)
- (7) Certificate for Clean Record (Non-Conviction Certificate) from the competent authority in Annexure –IV exercising the powers under Drugs and Cosmetics Act, 1940. If not applicable under Drug & Cosmetics Act, 1940 then a non-conviction declaration on a non-judicial stamp of Rs. 100/- duly Notarized shall be submitted. (Please enclose this document as Page no.41)
- (8) Affidavit for not being Black Listed in Annexure –III on non-judicial stamp of Rs. 100/- duly Notarized by notary (Please enclose this document at Page no. 40)
- (9) Notarized copy of manufacturing license for the products (Instruments) approved by the licensing authority, mentioning date of approval for products quoted in the Bid. The license & product list both should be renewed and up to date. (Bidder should mark it as Enclosure-I (if the certificate has more than one page, then please mark each page as Enclosure-1a,1b,1c and so on at upper right corner)
- (10) Copy of acknowledgement of EM-II and an affidavit on non-judicial stamp paper in case of MSME of Rajasthan. (Bidder should mark it as Enclosure-3 (if the certificate has more than one page, then please mark each page as Enclosure-3a,3b,3c and so on at upper right corner)
- (11) Duly Notarized photocopy of import license (IEC) for materials/Instruments as applicable along with **authorization by foreign principal bearing number**. (Bidder should mark it as Enclosure-4; If the certificate has more than one page, then please mark each page as Enclosure-4a,4b,4c and so on at upper right corner)
- (12) In case of imported Instruments, license for sale issued by concerning licensing authority duly notarized. (Bidder should mark it as Enclosure-5 (if the certificate has more than one page, then please mark each page as Enclosure-5a,5b,5c and so on at upper right corner)
- (13) **AUTHORIZATION LETTER** for participation in bid for **Distributors** issued after tender start date ~~27-03~~ 2023 and on letter head of original manufactures/ Importer. Hard copy must also be submitted by post along with DDs. Enclosure -2
- (14) The Declaration form in section "E (i & ii)" Signed by the Bidder. (As given at Page no. 10-13)
- (15) The Declaration under RTTP Act as Format E (v) on Rs. 100 Stamp. (Bidder should mark it as Enclosure-6; If the certificate has more than one page, then please mark each page as Enclosure-6a,6b,6c and so on at upper right corner)
- (16) **TECHNICAL BID / LIST & DETAILS OF ALL ITEMS** quoted in format given in section "E (iii)" **part-A** and **part-B** as given at **page no. 14-15** and sign it. (Bidder should mark it as Enclosure-7. If the certificate has more than one page, then please mark each page as **Enclosure-7a, 7b, 7c** and so on at upper right corner)
- (17) **PRINTED TECHNICAL BROCHURE /LITERATURE** for the quoted items are **MUST with highlighted specification space** with the Samples for the quoted items wherever required in the catalogue. Samples will be accepted which are properly packed, sealed and labeled. (Bidder should mark it as Enclosure-8; if the certificate has more than one page, then please mark each page as Enclosure-8a, 8b, 8c and so on at upper right corner.

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- (18) PAST user lists, supply orders for rationality and linking of technical brochure to **company's WEBSITE** should also be ensured.
- (19) European CE/ IVD conformity/ US FDA/UL/ISO/IEC61010/ NSF 49/EN 12469/ MIQE/21 CFR part 11 Certificate etc (Bidder should mark it as Enclosure-9; more than one certificate, then please mark each as Enclosure-9a, 9b, 9c and so on at upper right corner.

Note:

- a. **All documents must be submitted online. Up-loading un-notarized copies of the above documents will not be considered valid and shall render the proposal to be rejected.**
- b. Documents should be under the name and address of premises where items quoted are actually manufactured.
- c. **The Bidder will be liable for outright rejection if any rates / discounts / special offers are made/ disclosed in the Technical Bid.**

2. Submission of Financial Bid

The Bid form duly filled as per BOQ (Financial bid) giving the rates for various items in individual should be uploaded separately as Part – II here after called “Financial Bid”.

- a. Bid cost, Processing Fees and Bid Security by way of DD/ Bankers cheque page.37) must be submitted separately prior to the date of opening of the Bid.
- 2. **It is compulsory for all bidders to fill ALL THE ITEMS, required for BSL-3 Lab construction should be quoted by SINGLE FIRM, partial bids should not ACCEPTED i.e. Only A Single firm will have to completely Establishment of BSL-3 LABORATORY on turnkey basis.**
- 3. **The Purchase committee or member of purchase committee may visit technical qualified firm's any BSL-3 Lab, which was constructed by the bidders/firms in the last 3 year, if required. If not found satisfactory than the bid may be technical rejected.**
- 4. The clear design/layout of complete BSL-3 Lab will be submitted along with the tender which should be prepared by tenderer firm's authorized Design Engineer/Architect.
- 5. During Tender Submission the bidder must attach a site visit report along with the layout that has been stamped and should be counter signed by authorized signatory officer, will be submitted along with the tender documents.
- 6. The design/layout of complete BSL-3 Lab including all the parts/items/positions of placing of items etc. should verified by all the purchase committee members before commissioning.

7. BID SECURITY (EARNEST MONEY)

The Bid Security shall be **2% of the estimated value of tender amount i.e. 4.30 lac.** Bid Security 0.5 % of the estimated value of tender amount will be taken from MSME Units of Rajasthan. **The Bid submitted without sufficient Bid Security will be summarily rejected.** The Bid Security will be forfeited, if the Bidder withdraws its Bid during Bid validity period or in the case of a successful Bidder, if the Bidder fails within specified time to sign the contract agreement or fails to furnish the Performance security. **Bid security shall be valid for 90 days.**

- i. The Bid Security must be submitted in favor of “P I RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” payable at JAIPUR” in any of the following forms: -
Bank Guarantee or Demand draft of a scheduled branch
- ii. The Bid Security will be refunded to the Bidders in due course, after completion of tender process.
- iii. It may also be noted that the office of the PI does not undertake to assist in the procurement of raw material whether imported or controlled as well as restricted and as such the Bidder must offer their rate to supply the specific items from own quota of stock by visualizing the prospect of availability of raw material needed. Any of the above points if taken, as argument for non-supply/ late supply will not be entertained.

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8. RATES

Rate must be valid for the entire period of the Bid and must be offered conforming to the following: -

- i. Rates have to be quoted in Indian Rupees only. Rates in foreign currency will be rejected, and FOR to **PI RKVY Project "Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases", PGIVER, Jaipur.**
- ii. Rates must be offered net rate only against the specified packing of the items. The net rate must be inclusive of all charges by way of packing, forwarding, incidental or transit charges including transit insurance and any other levies or duties etc. chargeable on the product. If rates are quoted giving any free goods quantity or cash discounts the same shall not be considered.
- iii. Only GST or other taxes if applicable will be payable over net rate.
- iv. Other statutory increase or decrease shall be agreed upon mutually **P.I., RKVY PROJECT, "Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** and Bidders and revised rates shall be applicable on order received by the bidder on or subsequent to the date of such increase / decrease in government duty.
- v. The rates should be confined as far as possible to the packing units mentioned in the catalogue and different rate for different packing should be avoided. Further only total price should be offered against specified item. In no case the rate should be split up showing the cost of any on the component parts of the specified item. If split price is found, the item may be treated as rejected.
- vi. The rates must be written both in words and figures.
- vii. **Final Price Comparative will be made on basis on unit cost of item inclusive of GST and exclusive of provided rates of comprehensive Annual maintenance contract (AMC) beyond the warranty period.**

9. Comparison of rates of firms outside and those in Rajasthan: -

Comparison of rates of firms outside and those in Rajasthan shall be made as per the direction of Government of Rajasthan.

10. Guarantee/ Warranty of minimum 5 years onsite comprehensive is mandatory on all parts/instruments/equipments etc. which are used in the Establishment of BSL-3 laboratory on turnkey basis including all accessories after date of Satisfactory Installation: - (On Manufacturer Letter Head)

In case of Authorized Distributors, a statement of WARRANTY PERIOD offered; have to be provided on the letter head of Original Manufacturer / Importer mentioning that manufacturer/importer also will ensure the warranty of items quoted. The Bidder shall give guarantee that the goods/ stores/ articles would continue to conform to the description and quality as specified in the catalogue from the date of DELIVERY & INSTALLATION and that notwithstanding the fact that the purchaser may have inspected and / or approved the said goods/ stores / articles. If during the specified period the said goods/ stores/ articles are discovered not to conform to the description and quality as said for/ or have determined, then the decision of **P.I., RKVY PROJECT, "Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** in that behalf will be final and conclusive. The purchaser will be entitled to reject the said goods/ stores/articles or such portion thereof as may be discovered not to conform to the said description and quality. On such rejection the said goods/ stores / articles will be at the seller's risk and all the provisions relating to rejection of goods, etc., shall apply. The Bidder shall, if so called upon to do so, replace the goods etc. or such portion thereof as is rejected by the Purchase Officer, otherwise, the Bidder shall pay such damage as may arise by reason of such breach of the condition here in contained. Nothing here in contained shall prejudice any other right of the Purchase Officer in that behalf under this contract or otherwise.

11. In case, any item supplied by the approved firm does not conform to the required standard, the payment thereof, if received by the supplier shall have to be refunded to **"P I RKVY "Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases" payable at JAIPUR"**. Apart from this, such supplier shall be liable to be dealt with under provisions of Drugs & Cosmetics Act 1940/condition of bid document/contract. The supplier will not have any rightful claim to the payment of cost for substandard supplies which are consumed either in part or whole. It may be noted that supply of goods less in weight and volume than those mentioned on the label of the container is an offence and the same will be dealt in accordance with the existing law and in such case even the contract is liable to be cancelled.
12. **The names & specifications of articles** which are offered should be mentioned against each item of the catalogue. Mere indication of English/ USA/Indian will not serve the purpose.

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13. **The approved supplier shall furnish a copy of laboratory performance test** report, of the batch number of the Instruments which has been supplied along with the bill (if applicable).
14. **In the case of supply of Imported Item**, the suppliers shall furnish a certificate along with the bill to effect that the firm has completed all the formalities in connection with the import.
15. **PERFORMANCE SECURITY**

All firms, whose offers are accepted, will have to deposit a Performance security equal to 5% (five percent) of the total value of quantity as per Bid catalogue. The Bid Security of successful Bidder will be adjusted toward Performance security and balance will be given in one of the following forms only.

- Bank Draft or Banker Cheque of a scheduled bank in favor of **“P I RKVYRAFTAAR Establishment of Biosafety BSL-3” payable at JAIPUR**.
- National Saving Certificates and any other script/ instrument under National Saving Schemes for promotion of small savings issued by a Post Office in Rajasthan, if the same can be pledged under the relevant rules. They shall be accepted at their surrender value at the time of Bid and formally transferred in the name of procuring entity at the time of submission of Agreement.
- Unconditional Bank guarantee/s of a scheduled bank in prescribed format (Annexure-VI).
- FDR of scheduled bank which should be in the name of procuring entity on account of bidder and discharged by the bidder in advance. In this regard the provisions of rule 75 of RTPP Rules, 2013 will be applicable.

Successful Bidders will have to execute an agreement on a Non Judicial Stamp Paper of Requisite Stamp in the prescribed form with **“P I RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** and deposit security for the performance of the contract within 15 days from the date on which the acceptance of the Bid under registered cover is communicated to him or by e-mail whichever is earlier.

The security will be refunded after a period of six months from the date of completion of all contractual obligations including guarantee/warranty, whichever is later. No interest will be paid by the office on the Performance security.

In case of breach of any terms and conditions of the contract or on unsatisfactory performance, the amount of Performance security shall be liable for forfeiture in full or part by **P.I., RKVY PROJECT, “ Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** and decision of **P.I., RKVY PROJECT, “ Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** shall be final. If a Bidder fails to deposit the security or to execute the agreement within the period specified, it will be treated as a breach of the terms and conditions of Bid and will result in forfeiture of Bid Security besides any other action for this default with respect to RTPP Act, 2012 & RTPP Rules, 2013.

The expenses of completing and stamping the agreement shall be paid by the Bidder who shall furnish to **P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)**, one executed stamped counter part of the agreement free of charge.

NOTE: -Undertakings, Corporations, autonomous bodies, registered societies, co-operative societies which are owned, controlled or Managed by GOI/GOR, need not to furnish amount of Performance security. They would be required to submit a declaration in lieu of performance security.

Firms registered with the Director of Industries, Rajasthan, Jaipur as MSME shall furnish the amount of Performance security @2% of the estimated cost (Contract value) of the items quoted in the Bid.

It is to be noted that earlier years Bid Security/Performance security, even if lying in this office, shall not be considered towards this contract and therefore Bid Security /Performance security should be furnished afresh.

16. Inspection of Premises

P.I., RKVY PROJECT, “ Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan) or his authorized representative (s) has the right to inspect the factories / premises of those companies who have quoted for the Bid, before accepting the rate quoted by them or before releasing any order (s) or at any point of time during the continuance of the Bid. **P.I., RKVY PROJECT,**

Signature of Bidder

“Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan) has the right to reject the Bid or terminate / cancel the orders issued or not to re-order based on the facts brought out during such inspections.

17. P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan) reserves the right to cancel bid / bid proceedings and reject all bids without assigning any reason.

18. QUALITY ASSURANCE

- i. All supplies of Instruments delivered to the Store, shall essentially be accompanied with Q.C. OK Report (if applicable).
- ii. The decision of **P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** as regards ascertaining the quality of the stores shall be final and binding upon the Bidder.
- iii. The Bidder shall be responsible for proper packing and delivery of the material to the consignee. Any loss, damage or breakage, leakage or shortage observed on receipt of supplies and reported by the in-charge of the Store, it will be the responsibility of the supplier who shall be required to make good the loss within 15 days from the date of information sent by the In-charge of the Store. No extra cost on such account shall be admissible. **Failure to make good the above losses shall be liable for deduction of the corresponding amount from bills which shall be final and binding.**
- iv. Bidders shall be required to provide printed descriptive literature of the approved Instruments supplied to the office, in sufficient number for distribution to the veterinary institutions for their reference.

I / We have read the above terms and conditions and I / we agree to abide by the same

Signature of Bidder



(iii) Contract Forms

Agreement

(To be executed on a non-judicial stamp as per directions of the Government if the bidder is declared successful – is Value wise @ Rs 500 or more)

An agreement made this _____ day of _____ between _____ (hereinafter called “the Supplier”), which expression shall, where the context so admits, be deemed to include his heirs successors, executors and administrators of the one part and **P.I., RKVY PROJECT, “ Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases.” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan)** [name of the Procuring Entity (hereinafter called “the Procuring Entity”) which expression shall, where the context so admits, be deemed to include his successors in office and assigns) of the other part.

WHEREAS the Procuring Entity invited Bids for certain Goods and Related Services, viz., Laboratory and Farm Equipment and has accepted a Bid by the Supplier for the supply of those Goods and Related Services for the sum of _____ (amount in figures and words) (herein after “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

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

1. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - (a) The Procuring Entity’s Notification to the Supplier of Award of Contract;
 - (b) The Bid Submission Sheet and the Price Schedules including negotiated Price, if any, submitted by the Supplier;
 - (c) The Special Conditions of Contract;
 - (d) The General Conditions of Contract;
 - (e) The Schedule of Supply;
 - (f) Instructions to Bidders;
 - (g) The Notice Inviting Bids;
 - (h) _____.

In the event of any discrepancy or inconsistency within the Contract documents, the documents shall prevail in the order listed above.

2. In consideration of the payments to be made by the Procuring Entity to the Supplier as indicated in this Agreement, the Supplier hereby covenants with the Procuring Entity to provide the Goods and Related Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

Signature of Bidder
(With seal)

Signature of Bidder

Bidder should enclose his Proof of Bidding Document Cost of Rupees One Thousand at this Page, Page no..... (Copy of Demand Draft/ Bankers cheque in favor of “P I RKVYRAFTAAR Establishment of BSL-3” payable at JAIPUR”)

.....

Bidder should enclose his Proof of Processing Fees Rupees One Thousand only at this Page, Page no..... (Copy of Demand Draft/ Bankers cheque, in favour of MD, RISL Jaipur payable at JAIPUR)

.....

Bidder should enclose his Proof of Bid Security at this Page, Page no..... (Copy of Demand Draft/ Bankers cheque in favor of “ P I RKVYRAFTAAR Establishment of BSL-3” payable at JAIPUR)

Signature of Bidder



Annexure – I

ANNUAL TURN OVER STATEMENT

The Annual Turnover of M/s for the past Three Years are given below and certified that the statement is true and correct.

SL. No.	YEARS	TURNOVER [RUPEES IN LAKHS]
1.	2019-20	
2.	2020-21	
3.	2021-22	
	Total	

Average Turnover per Annum Rs..... Lakhs.

Signature of Auditor/ Chartered Accountant

[Name & Seal of Signatory]

Date

Signature of Bidder

Annexure – II

VAT/GST Clearance Certificate

TCC Number:

Date:

This is certified that M/s.....

(Firm name with official address) Registration No. (TIN)..... GST No.....has no tax liability outstanding and above has paid current tax up to the month of March, 2022 / Firm has submitted its VAT returns up to the month of March, 2022 and paid tax accordingly.

Signature

Name:

Designation:

Location:

Signature of Bidder

Three handwritten signatures in blue ink are present at the bottom of the page, corresponding to the 'Signature of Bidder' label.

Annexure – III

UNDERTAKING

(On non-judicial stamp paper on Rs 100/- and duly Notarized by Notary Public)

I, _____
Prop/Partner/Director of M/S _____ do hereby
declare that:

1. I have read the terms and conditions of the Bid and I agree to abide by these terms and conditions and other guidelines issued in this regard.
2. I have enclosed all additional undertakings and / or certificates as required, as per Bid conditions. The information given by me in this tender form is true and correct to the best of my knowledge and belief and the rates quoted are not higher than the rates quoted to other Govt. / Semi Govt. / Autonomous / Public Sector Hospitals / Institutions / Organizations in the same financial year.
3. I have not been deregistered or black listed by any govt. /autonomous institution, hospital or body in India for an item which is being quoted here by me in this Bid or for participating in bid altogether.

Signature of Bidder

 Signature of Bidder

Annexure – IV

NON-CONVICTION CERTIFICATE

(On non-judicial stamp paper on Rs 100/- and duly Notarized by Notary Public)

This is to certify that our firm M/s..... (Name of firm with official address) having License Nos..... granted on (date.....) valid up to (date.....) has not been convicted by any of the state government or central government organization during the last five years.

Signature of Bidder



Signature of Bidder

Annexure – V

Board Resolutions

M/s _____ (To be submitted by each consortium member and Parent company)

COPY OF BOARD MEETING HELD ON ----- AT -----

The Board, after discussion, at the duly convened Meeting on, with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 1956, passed the following Resolution:

RESOLVED THAT approval of the Board be and is hereby accorded to participate in for the **E-Tender for “Establishment of BSL-3 Laboratory on Turnkey Basis” of RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases”, PGIVER, Jaipur**, and Mr / Ms _____, is hereby authorized to execute the Consortium Agreement or any other document/ paper related to Bid.

FURTHER RESOLVED THAT pursuant to the provisions of the Companies Act, 1956 and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board, be and is hereby accorded to invest for the **“Bid for Establishment of BSL-3 Laboratory on Turnkey Basis” of RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases”, PGIVER, Jaipur.**

(Director)

Certified true copy by Company Secretary/ Managing Director/ Director (Signature, Name and Stamp of Company Secretary/ Managing Dean/Dean)

1. This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary/ Managing Dean/Dean.
2. The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.

Note: - Companies/firms may submit above certificate regarding Board Resolution in different format also which should clearly indicate that the company has passed resolution for participating in the bid (Specific or general)

Signature of Bidder



FORM OF BANK GUARANTEE (For Performance Security)

(Only for those Applicable)

Whereas the P.I., RKVY PROJECT, “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases” 2nd Floor, VCC Building, Post Graduate Institute of Veterinary Education and Research, NH-11, Agra Road, Jamdoli, Jaipur-302031 (Rajasthan) , (hereinafter called the “P.I. RKVY Project, CDSRZ, PGIVER Jaipur”) having entered into an Agreement No..... dated..... with M/s willing to submit Performance Security (hereinafter called the” Supplier”) for Supply of here-in-after called “the said Agreement” under which the Supplier(s) M/s Have applied to furnish Bank Guarantee to make up the full Security Deposit/performance.

1. In consideration of the having made such a stipulation in agreement. We..... (Indicate the name of the Bank) here-in-after referred to as “the Bank” at PGIVER, Jaipur the request of M/s..... Supplier(s) do hereby undertake to pay to the P.I. RKVYRAFTAAR Establishment of BSL-3, PGIVER Jaipur amount not exceeding Rs..... (Rupees..... only) on demand by “P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur.
2. We (Indicate the name of Bank), do hereby undertake to pay Rs.....,without any demur or delay, merely on a demand from the P.I. RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases”, PGIVER Jaipur, any such demand made on the bank by the P.I. RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases”, PGIVER Jaipur shall be conclusive and payable by the Bank under this guarantee. The Bank Guarantee shall be completely at the disposal of the P.I. RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases”, PGIVER Jaipur and We (indicate the name of Bank), bound ourselves with all directions given by P.I. RKVY Project “Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases”, PGIVER Jaipur regarding this Bank Guarantee However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupees only).
3. We (Indicate the name of Bank), undertake to pay to the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur any money. So demanded notwithstanding any dispute or disputes raised by the Supplier(s) in any suit or proceeding pending before any Court or Tribunal or Arbitrator etc. relating thereto, our liability under these presents being absolute, unequivocal and unconditional.
4. We (indicate the name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of said Agreement and that it shall continue to be enforceable till all the dues of the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Government certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said supplier and accordingly discharges this guarantee.
5. We (indicate the name of Bank), further agree with the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur that the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur shall have the fullest liberty without our consent and without affecting in any manner our

Signature of Bidder

obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time to performance by the said Supplier(s) from time to time or to postpone for any time or from to time any of the powers exercisable by the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur against the said supplier forbear or enforce any of the terms and conditions relating to the said Agreement and forbear or enforce any of the terms and condition relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the – 80 – said Supplier(s) or for any forbearance act or omission on the part of the p.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur or any indulgence by the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur to the said Supplied(s) or by any such matter or thing whatsoever which would but for this provision, have effect of so relieving us.

- 6. The liability of us (Indicate the name of Bank), under this guarantee will not be discharged due to the change in the constitution of the Bank or the Supplier.
- 7. We (Indicate the name of Bank), lastly undertake not to revoke this guarantee except with the previous consent of the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur in writing.
- 8. This Performance Guarantee shall remain valid and in full effect, until it is decided to be discharged by the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER™ Jaipur. Notwithstanding anything mentioned above. Our liability against this guarantee is restricted to Rs..... (Rupees Only).
- 9. It shall not be necessary for the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur to proceed against the Supplier before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the P.I. RKVY Project Establishment of Biosafety level-3 (BSL-3) facility for the diagnosis of emerging zoonotic diseases, PGIVER Jaipur may have obtained or obtain from the Supplier.
- 10. The Bank Guarantee shall be payable at the Jaipur. If the last date of expiry of the Bank Guarantee happens to be a holiday of the Bank, the Bank Guarantee shall expiry on the close of the next working day.

Datedday of.....

Signature & Designation	
For and on behalf of the Bank (indicate the Bank)	

Note: - Format should be filled / amended for Bid Security/Performance Security as applicable.

Signature of Bidder



Annexure – VII

All the Bidders are instructed to submit following information required for on-line payments. Please write neatly and enclose Photocopy of Bank Passbook and a cancelled cheque in support of the details.

Format for Bank Details

(Details of Third Party for Online Payment)

Name of the Firm / Company	
Address	
Name of the Bank	
Branch Address of the Bank	
IFSC Code of the Bank	
Bank Account Number	
Photocopy of <u>Bank PASSBOOK</u> and a <u>Cancelled Cheque</u>	_____ (enclosed Yes / No)
GST Regd. No.	
PAN Number	
Aadhar No. of Authorized Person	
Mobile No. of Authorized Person	+91 - _____
E-mail ID	
Above details are correct and Copy of BANK PASSBOOK and a CANCELLED CHEQUE of same Bank Account is Enclosed	
Authorized Signature (with Seal)	

Signature of Bidder



TECHNICAL SPECIFICATIONS

Note: All the specifications below are minimum specifications and higher specifications shall be used wherever necessary/ required. Deviation on higher side shall only be considered and no extra weightage shall be awarded for such deviations.

The scope of work shall comprise establishment of ready to use molecular diagnostic laboratory for testing of emerging and reemerging zoonotic pathogens as per laid guidelines of ICMR/DBT 2020/WHO 2021/CDC/equivalent on turnkey basis. Offers not conforming completely to laid down guidelines will not be considered. The project consists of two parts:

Biosafety level-3 facilities- scope of work:

This includes Design, Preparation of Drawings, Supply, Construction, Fabrication, Erection & Installation, Testing, Commissioning, Validation & Trial runs, Certification and Handing over in complete of Biosafety Laboratories of LEVEL 3 standard on second floor complete in all respect in as per enclosed area layout including operation and maintenance of whole work for a period of 5 years. Detailed scope of work is enlisted in subsequent subheads. All services of BSL-3 lab area are to be 100% DG backed.


Requirements:

1. All the specification of installation and commissioning must confirm-
 - ICMR Guidelines – Establishment of Biosafety Level – 3 Lab 2020 with amendments up to last date of submission of tender.
 - Guidance document on standards/specification for the establishment of Biosafety containment level 2 and 3 facilities & Standard operating procedure by Department of Biotechnology (DBT) 2020 with amendments up to last date of submission of tender.
 - WHO Laboratory Biosafety Manual 4th Edition 2021 with amendments up to last date of submission of tender.
 - CDC guidelines for Biosafety in Microbiological and Biomedical Laboratories 5th Edition 2009 (BMBL) with amendments up to last date of submission of tender.
 - Special conditions, Particular specifications, Relevant BIS code and if both are not applicable manufacturer's specifications
 - Any other national and international guidelines for Biosafety Level – 3 Laboratories
2. Detailed designing and engineering of Biosafety level-3 (BSL-3) will be given due consideration.
3. Firms to be necessarily ISO 9000 Complaint. The internal layout of the BSL-3 lab has to be provided by the tenderers as per layout area. The prospective bidder/firm may visit the area before submitting the technical/financial bid after getting permission from the Principal Investigator, BSL-3 lab, VCC 2ND floor, PGIVER, Jamdoli, Jaipur, Rajasthan.
4. Information regarding previous installations in premier institutions in India and satisfactory service and maintenance to be forwarded with all the details for verification.
5. On site field supervision with installation by local personnel's along with validation certificate after commissioning.
6. Any related work of electrical/civil/mechanical should be treated as a part of scope of bidder.
7. The necessary place be earmarked in the design of the laboratory for further installation of Autoclave and Bio Safety Cabinet including their electricity supply provision.

Methodology & Philosophy:

1. Risk Analysis for GROUP 3 class
2. Designing of BSL-3 lab based on Risk Analysis

Signature of Bidder



3. Supply and installation of related equipment
4. Testing & Commissioning of lab with equipment.
5. Zero Load and Full Load Validation
6. Certification of the facility
7. Submission of standard operating procedure (SOP) and lab manual for operation and maintenance of laboratory

Detailed technical specification:

1. The available space 27*73 ft. is located at VCC 2nd floor, Dept. of Vet. Medicine, PGIVER, Jamdoli, Jaipur, Rajasthan as per the site plan submitted by Principal Investigator, BSL-3 lab.
2. Eye wash station
3. Hand sanitizer machine
4. Hand dryer
5. Clean start up room for checking up air and balance of negative pressure.
6. Clean room facilities, electricity, lighting and stainless-steel tables, bags in/ bags out (BIBO) filter.
7. HEPA Filters (0.3 um size, 99.97% efficiency)
8. HVAC System including complete air management system for maintaining the lab environment
9. CCTV system monitors (minimum required cameras as per layout, with display for central monitoring, subject to approval by Incharge)
10. Access control devices.
11. **Facility Design & Establishment:** Facility shall be adequately designed ensuring a barrier to protect not only to persons working in the facility but also outside of the laboratory and those in the community from infectious organisms which may be accidentally released from the laboratory.
12. **Electrical System:** Lighting lux level shall be 500 Lux in lab area, suitable and adequate numbers of Power Points, Sealed type Electrical Switches and Sockets of IP 65 rating (may be achieved with or without additional cover housing) suitable for laboratory fumigation (IP65 or better), Sealed type Light Fixtures (surface/recess mounted with minimum openings/ cut out) suitable for laboratory fumigation (IP65 or better), sealed electrical conduit leading to containment areas, Full Power Back up arrangement with Auto Power Start arrangement (AMF Panel), UPS for critical installations, Emergency Lighting to prevent blackout, Proper Earthing for equipment protection, Automatic Phase Change over, Electrical System Interlocking for HVAC System Operation Sequence with Fire Alarm System etc. As a general principle, design must ensure that failure of electrical and mechanical systems. Therefore, sufficient redundancy should be kept based on risk analysis based on criticality.
13. **Ventilation System:** Outside laboratories shall maintain positive pressures at all times. Lab areas are to be designed for -45 Pa (Minus 45 Pascals) pressure gradient from outside lab are. Low Velocity Mechanical ventilation shall be provided to internal rooms other than laboratories ensuring minimum Air changes. The supply air distribution system in the laboratory should not distort the unidirectional and stable airflow pattern required for fume cupboards and microbiological safety cabinets in lab area.
14. **Extracts system (Lab safety air flow system):** Extract fans should be located close to the point of discharge to maintain negative pressure. External discharge arrangements for extract systems should be protected against back pressure from adverse wind effects. They should be located to avoid re-introduction of exhausted air into the building through air intakes and windows.
15. **Control system:** All supply and extract systems should have control systems. Supply and extract fans should be interlocked. This will ensure that the supply fan will not operate unless airflow is established with the extract system. Laboratory spaces should be comfort cooled with humidity control. Large laboratory spaces should be zoned, with each zone equipped with a thermostat for individual control.
16. **Containment:** Providing both physical and biological containments by a suitable combination of facilities, practices and procedures for managing risk-inherent microorganisms, GE organisms or cells

Signature of Bidder



in the laboratory environment, thereby ensuring optimal protection for the safety of laboratory workers, outside people and the environment from the same by reducing the exposure and preventing their escape and establishment in a natural environment. Entry to effluent treatment system should be through cloth change room and shower room and staff must take shower before exit from the effluent treatment system. Effluent treatment system should be at negative pressure. The value of negative pressure may be set after doing risk analysis and keeping in view of negative pressure of its surrounding areas.

17. **Decontamination & disposal:** To render the bio waste (All liquid, solid and gaseous) safe before discarding specific treatment shall be adopted as per local Regulations and Guidelines on Biosafety hazards.
18. **Emergency Procedures:** Preparation of Emergency contingency plans in strict compliance to the emergency procedures.
19. **Emergency alarm system.**
20. **Fire safety:** All necessary fire detection, protection and prevention should be provisioned in the laboratory. The principles of fire safety apply equally to new projects consideration should be given to the fire safety strategy during the design stage. Fire-Exit route should be displayed with location of the nearest exit.
21. **Emergency Backup Supply:** Dedicated one set of 125 KVA (minimum and tentative capacity subject to approval by Incharge) DG set shall be provided for BSL-3 lab area.

HVAC SYSTEM (Once Through System with 100 % Fresh Air)

This involves design, supply, installation, testing, commissioning, validation of HVAC (3 x 20 TR, 2 working + 1 stand by, separate cooling system/Air conditioning with 100 % fresh air once through system with AHUs for achieving desired temperature gradient, humidification, dehumidification, heating coils, heating piping, pressure gradient, humidity levels etc. required for BSL-3 labs) system including submission of heat load calculation, thermal simulation as per the above mentioned and additional specifications applicable and fire and safety norms subject to approval by Incharge. HVAC system and allied systems related civil and E&M works are included in the scope of the work.

- BSL-3 lab area shall be airconditioned using individual cooling system for each room of minimum 3 X 20 TR (2 Working +1 Standby). Air supply system along with air exhaust system shall be designed to maintain negative pressure (minimum -45 Pa pressure gradient from outside). Chillers shall be at least ECBC plus complaint.
- All the insulation used in the building envelope and for HVAC systems are eco-friendly.
- The refrigerant used in the HVAC systems and refrigeration equipment is eco-friendly.
- HVAC system shall have a minimum warranty of 5 years (in DLP). Bidders are requested to quote accordingly.
- HVAC shall have redundancy of 50 % i.e., 2 working + 1 standby chillers.
- AHUs motor shall have redundancy of 100 % i.e., 1 working + 1 standby.
- HVAC system shall be once through system with 100% fresh air.
- AHUs, Chillers and associated pumps shall be placed on terrace area.

Area pressure gradient:

- Sample receiving room – atmospheric pressure
- Media preparation room- atmospheric pressure
- Common clean passage (-) 15 Pascal
- Viral Lab (-) 45 Pascal
- Bacterial Lab (-) 45 Pascal
- Molecular Lab (-) 45 Pascal

Signature of Bidder

- Change room/ wet shower/dry shower- (-) 15 Pascal
- Effluent Decontamination room/ cook tank room at ground floor (-) 45 Pascal
- Decontamination room-vertical autoclave- atmospheric pressure

Desired Indoor conditions:

Parameters	BSL-3 areas
Temperature	23°C ±2°C
Relative Humidity	60±10%
No. of air changes	8-12/hour

- Emphasis shall be given on maintaining desirable Indoor Air Quality by setting and controlling parameters of Temperature, Air Flow, Humidity Levels and Air Changes Per Hour (Total & Fresh Air) for each room/zone/area of the BSL-3 Labs.
- HVAC control system shall be installed to prevent positive pressurisation of the laboratory. A visual monitoring device with alarm(s) should be installed so that staff can always ensure that proper directional airflow into the laboratory room is maintained. Consideration should be given to the installation of audible or clearly visible alarms to notify personnel of HVAC system failure.
- Isolation Dampers to Isolate Laboratory Rooms for fumigation.
- Location of supply air diffusers should not interfere with Biosafety Cabinets air flow.
- Ducting Joints should be sealed to prevent air-leakage.
- HVAC system should have alarm to indicate system failure.
- HVAC System should have power backup and shall be DG backed.
- To isolation purpose, separate air handling systems should be installed in non-containment and containment zones. AHUs should be installed in each isolation Zone (for each room, as feasible) wherever isolation is required within the containment area. Each air handling unit serving a containment area shall supply 100% fresh air. Wherever feasible and economical, heat recovery may be done from lab exhaust air with utmost care.
- Direction of air flow should be from less contaminated area to more contaminated area.
- Air flow within containment area should be from entrance to rear area (i.e., opposite to the strategic placement of BSC (Biosafety Cabinets)). All laboratory rooms must be provided with a visual monitoring device that indicates directional inward airflow.
- HVAC system should have provision for less air change during no occupancy to conserve energy.
- Differential pressure of minimum 15 Pascals should be maintained between separate functional spaces to ensure more negative pressure in those areas which are at higher risk of contamination. The BSL-3 facility is recommended to be maintained at differential negative pressure of 45 Pa between main lab and outside atmospheric pressure. All negative pressure in the containment area should be measured with reference to common single atmospheric set point.
- HVAC system must be capable of sensing and responding to unusual outside pressure conditions (like a storm) and maintaining negative pressure in the containment area during all weather conditions. For the ease of maintenance, active components of HVAC system must be kept outside containment area with provision for sufficient space for operation and maintenance. The capacity of exhaust system must be approximately 15% more than the supply air system. Variable speed drive on the exhaust fan is recommended to facilitate room pressure control adjustments. HVAC system must be controlled by electronic control system or Differential Pressure Transmit system.

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- Air duct for supply and exhaust should be airtight up to zero leakage dampers. Isolation dampers should be provided in HEPA Filter housing to avoid any leakage of contaminated air and for provision of gaseous decontamination of laboratory, in case of breakdown of AHUs.
- Duct should be tested for any leakage before commissioning of laboratory by soap bubble test or pressure decay test at +1000 Pascal pressure. Ducting should be of GSS material to avoid rusting of duct work.
- Structural stability to withstand 1.25 times maximum design pressure under supply and exhaust fan failure conditions (i.e., no wall distortion or damage should occur).
- The exhaust air from all the containment equipment and containment area shall be filtered through HEPA filters before discharging outside.
- Efficiency of HEPA filters should be better than 99.97% with 0.3 μm particle size.
- HEPA filter housing shall have provision of Isolation dampers in both upstream and downstream side for decontamination of HEPA filters during maintenance.
- HEPA filter housing should have pressure differential meter to know the status for any choking of filters.
- Pre-filters shall be installed in upstream side of HEPA filters to increase the life of HEPA filters in both supply air and exhaust air. Used pre-filters should be decontaminated before removal from the containment area.
- HEPA Filter housing should have in-situ leak testing facility to assure integrity and damage in installation of HEPA filter and leakage testing of HEPA filter sealing with its housing.
- Supply and exhaust HEPA filters housings should be located as close as possible to the containment space to reduce the containment duct length. HEPA filter housing should have provision for physical isolation using zero leakage bio seal dampers. Housing should also have provision of port for injecting chemical for decontamination of HEPA filters before their removal for replacement.
- In areas with higher contamination, HEPA filters may be required to be installed in parallel depending upon the quantity of air to be filtered based on containment a HEPA filters shall be designed for approximately 50% of its rated capacity so that there is sufficient margin for dust loading as capacity of filter reduces with the choking of HEPA filters.
- Outside air intake should be such that rain should not wet or clog the supply air filters. Air intake may be protected with 6 mm or 12 mm bird screen.
- Redundant (1 working + 1 standby configuration) fan, pumps should be considered in supply and exhaust air ventilation systems. To prevent overheating of interior rooms, N+1 number of DX System should be considered (N being the number of best size chillers).
- Fire Dampers provided in the supply and exhaust air systems shall be interlocked with the AHU blower motors such that in case of fire, the AHU fan motor should trip automatically.
- BSL-3 facility is feed through dedicated DG 125 KVA generator for 100% load requirement with AMF panel.
- AHUs motors shall be in 1 working + 1 standby configuration Equipment and Components.
- Air Handling Units shall be of sectionalized constructions with an under frame of extruded heavy aluminium profiles. The under frame shall be mechanically strong and shall take double skinned insulated panels. The powder coated panels shall consist of 0.8 mm galvanized iron outer skin and 0.63 mm galvanized iron inner skin with 13 mm thick injected PUF insulation in between two panels. The AHUs shall be with true thermal break. There should not be any projections inside the AHUs and the covings has to flush with the side panels. Air tight access panel with suitable neoprene gaskets shall be provided in the fan section, coil and filter section. Similar gaskets should be used at all other joints of the AHU and its ducting. Units meant for indoor locations shall be specially designed to meet the arduous and corrosive atmosphere.

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- **Air Conditioning plant/units:** The Air-Conditioning plant/units (split AC- based on requirements of the lab's AHU) shall be with Direct Extension (DX system). The condenser unit shall have multiple compressors such that at least one compressor shall be as standby. The AHU shall comprise of Cooling Coil Section with 8 row deep DX coil, necessary component, 18-gauge SS 304 drain pan with 13 mm thick closed cell self-sticking polyethylene insulation, having slope at one side, drain connection from other side. Inlet and outlet coil nipples shall be sealed against unit casing by means of neoprene gaskets. Alternately, the cold air from the existing Central Air-Conditioning plant may be taken.
- The laboratory rooms will be supplied with pre-conditioned (heating, cooling) fresh air by a mechanical ventilation system. Temperature inside the lab shall be maintained at $22^{\circ}\text{C}\pm 2$.
- The air will be cooled to $12^{\circ}\text{C} - 13^{\circ}\text{C}$ then reheated with an electric duct coil to maintain required space conditions. This is required to maintain proper humidity conditions in the lab and humidity level should be maintained at $60\pm 10\%$. To heat the air in the winter, an electrical heater unit (of adequate capacity) would be planned. This heater will be the same heater that will function as dehumidifier unit in summer.
- **Design of Supply air system:** One variable speed supply fan of Gebhardt/ Krugger/ Nicotra or equivalent reputed OEM (Original Equipment Manufacturer) should be installed. Fan is designed for the whole required supply air amount (100% Redundancy). The fan shall be backward (or forward) curved centrifugal double inlet multi blade with optimized selection for low noise and high efficiency. Fans shall be statically and dynamically balanced for vibration free operation. Fans shall be enclosed in galvanized steel scroll cases and shall be driven by a variable frequency drive (VFD). The VFD should be pre-set programme for five different varying fan speed with selector switch for user operation. Fan and motor assembly shall be mounted on vibration isolators eliminating the need for external vibration isolators. Provision shall be made for belt tensioning. Motor should be of required capacity of Crompton Greaves/ Siemens/ ABB or equivalent of reputed OEM make. The fan should not exceed noise level of 75 db (A) from 1 m distance. A spare motor shall be provided in case of any burn out/breakdown for immediate repair/replacement. 4-5 spare fan belts shall also be provided which can be used for replacement in case of wear/tear.
- **Volume Control Dampers:** The distribution of air is planned via air inlets in the laboratory rooms. To control the air volume flow variable volume boxes in the supply air ducts are planned (at mouth of supply, after blower and after fine filter). The housing for these dampers (in fact all) will be of extruded aluminium, Low Leakage Aerofoil design. A constant volume mechanical control damper valve will be installed which will also be easily accessible for corrective purposes. The supply air needs to be constant to maintain the proper air change rate.
- A wire mesh screen to prevent entry of rodents/birds/insects, etc. will be placed in front of the damper at the mouth of supply.
- **Filters:** There will be three sets of filters- coarse filters at mouth of supply and fine filter after blower motor of supply unit and HEPA filter housing in the supply ducting at a distance of about 500mm from fine filter unit.
- Coarse filter will be in outside fresh air pre-filter section and will be G4 washable filter (50 mm deep) class having average arrestance of 85-98% for 10 microns size as per EN779 2002, after damper at mouth of supply (as mentioned in volume control damper).
- Fine filters will be F7 filter (300 mm deep) Average Efficiency 85-95% for 1 micron size as per EN 779 2002 standards and placed after coarse filter before air goes into DX system.
- F-7 filter to be provided with test port elbows (pre and post) to put in magnehelic gauges tubing for measure differential pressure across it. These test port elbows will remain sealed/closed in routine condition.

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- The HEPA filter plenums (Containment Housing) shall be made in SS 304 (14 gauge) with air tight and leak proof construction. The HEPA filter plenums shall be provided Isolation dampers at Inlet and Outlet and shall have provisions and facility to carry out on site HEPA filter scanning, testing and validation, magnehelic pressure gauge to monitor pressure drop across the HEPA filter, fumigation ports to allow IN-SITU decontamination of HEPA filters and Bag-In-Bag-Out facility for change/replacement of filters. The quantity of HEPA filter should be provided on the basis of supply air room volume, length of duct.
- **Air Handling Unit (AHU):** 100% Fresh Air (Once through system) AHU(s) with HEPA filters inside the unit in 1 Working +1 Standby (Motor only) configuration shall be provided and placed preferably on terrace. AHUs shall be Double Skin type and panels shall be made of 45+/- 2 mm thick pre coated 0.6 mm thick GI on outer side and plain 0.6 mm thick GI sheet on inner side with PUF insulation density of 38+/-2 Kg/Cum. The framework shall be of extruded aluminium thermal break hollow sections. AHU shall comprise of mixing box section with aluminium aerofoil blade with low leakage type F/A dampers suitable for manual/motorized operation. Pre Filter section with 10- & 5-micron filter on common frame. Coil section with Chilled water coil 4/6 row deep and with 2 row deep Hot water coil. AHUs shall also house Insulated 18G SS 304 stainless steel drain pan. Fan section with SISW/DIDW direct driven plug fan type. Fire retardant flexible canvass connection between fan & AHU panel with TEFC motor. Final Filter Section shall be equipped with 0.3-micron HEPA filter(s) housing and supply plenum with aluminium S/A damper suitable for manual/motorized operation.
- **Ducting:** Ducting shall be of GSS material to avoid leakage and long run corrosion. Duct Insulation on supply air ducting shall be minimum 19 mm thick aluminium faced closed cell nitrile rubber.

Note: -

- Duct work shall mean all ducts, casings, dampers, access doors, joints, stiffeners and hangers.
- The ducts shall be Factory fabricated in BOX form as per SMACNA Standard from GSS. Ducts flange joints shall be as per SMACNA standards.
- The thickness of sheet for fabrication of rectangular ductwork shall be as under.

Longest side	Minimum sheet
750 mm and below	0.63
751 mm to 1500 mm	0.80
1501 mm to 2250 mm	1.00
2251 mm & above	1.25

- The Factory fabricated duct in BOX form shall be used at site, L shape Factory fabricated duct shall not be used at site.
- All duct dampers shall be opposed blade louver dampers of robust SS 304 construction and tight fitting.
- Dampers shall be placed in ducts at every end point of supply air duct connection for the proper volume control and balancing of the air distribution system.
- All supply air ducts at AHUs room area crossings shall be provided with Motor operated Fire & smoke damper of at least 120 minutes rating as per tested by CBRI.
- Motor operated damper shall be linked with Fire detection/ Fire Management system.
- Rectangular Diffusers shall be extruded aluminium construction, square & rectangular diffusers with flush fixed pattern for different spaces.
- Supply air diffusers shall be equipped with fixed air distribution grids, removable key-operated volume control dampers, and anti-smudge rings as required in specific applications.

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- Supply air diffusers shall be equipped with fixed air distribution grids, removable key-operated volume control dampers, and anti-smudge rings as required in specific applications
- Linear Diffuser shall be extruded aluminium construction with removable core, one- or two-way blow type.
- Leak-proof high-density Hessian/canvass cloth shall be used between branch dropper end and Diffuser/Grill.
- Ducting design will be submitted by the vendor along with details of bends, dimensions of the duct at various places from AHU to the lab, number of inlets/outlets planned etc. which would be suitable from the lab being upgraded.
- To avoid the allowed noise level, sound absorber will be installed on the housing of the AHU.

HVAC Electrical Panels

- All panels shall be floor mounted sectionalized, compartmentalized type having compartments of suitable size. Indoor type Panel shall be minimum IP42 and Outdoor panel shall be minimum IP54.
- All panels enclosure, frame work and doors shall be of CRCA sheet steel of 2 mm thickness whereas gland plates shall be of 3 mm thickness with stiffeners.
- The bus bar shall be electrolytic grade high conductivity copper, with DMC/SMC supports of required capacity suitable for 3 phase 415 V A.C. Supply.
- All starter motor/fan panels shall be provided with following features
 - ✓ A/M switch and start stop push button.
 - ✓ Adjustable thermal overload trips on all phase.
 - ✓ Single phase prevention device.
 - ✓ Under voltage protection.
 - ✓ Latch on contacts with Trip mechanism to indicate fault tripping.
 - ✓ All the motor feeders to be designed as per Type 2 coordination with MCCB/MPCB isolators and starters as per standard.
 - ✓ All motor feeder MCB's shall be D curve.
 - ✓ All out going MCCB's shall be provided with Thermal magnetic and microprocessor-based release with overload, short circuit and built-in earth fault protection, Digital Ammeter with cast resin, Suitable size CTs.
 - ✓ Cables used for power supply shall be XLPE power cables 1.1 Kv grade of aluminium conductor and end termination with brass compression gland aluminium lugs.

EXHAUST SYSTEM (HEPA FILTERS WITH BAG IN BAG OUT (BIBO) TECHNOLOGY)

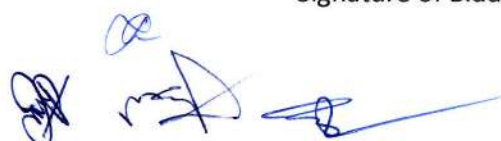
This involves design, supply, installation, testing, commissioning, validation of Exhaust System with BAG IN BAG OUT Housing with Stack of sufficient height for achieving desired pressure gradient and expulsion of contaminated gases required for BSL-3 labs including submission of thermal simulation as per the above-mentioned guidelines and additional specifications applicable and fire and safety norms subject to approval by in charge. Exhaust system and allied systems related civil and E&M works are included in the scope of the work.

Exhaust System along with Air supply system shall be designed to maintain negative pressure (minimum -45 Pa pressure gradient from outside atmospheric pressure).

All the required Equipment shall be placed on terrace area.

Specification: -

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- Emphasis shall be given on maintaining desirable Indoor Air Quality by setting and controlling parameters of Temperature, Air Flow, Humidity Levels and Air Changes Per Hour (Total & Fresh Air) for each room/zone/area of the BSL-3 Labs.
- Exhaust control system shall be installed to prevent positive pressurisation of the laboratory. A visual monitoring device with alarm(s) should be installed so that staff can always ensure that proper directional airflow into the laboratory room is maintained. Consideration should be given to the installation of audible or clearly visible alarms to notify personnel in case of system failure.
- Exhaust Ducting should be protected with Back-Draft Damper.
- Ducting shall be GSS sheet and ducting Joints should be sealed to prevent air leakage.
- Exhaust system should have alarm to indicate system failure.
- Exhaust System should have power backup and shall be 100% DG backed or 100% UPS backed.
- Wherever feasible and economical, heat recovery may be done from lab exhaust air with utmost care.
- Differential pressure of minimum 15 Pascals should be maintained between separate functional spaces to ensure more negative pressure. The BSL-3 facility is recommended to be maintained at differential negative pressure of 45 Pa between main lab and outside atmospheric pressure. All negative pressure in the containment area should be measured with reference to common single atmospheric set point.
- The capacity of exhaust system must be approximately 15% more than the supply air system. Variable speed drive on the exhaust fan is recommended to facilitate room pressure control adjustments. Exhaust system must be controlled by electronic control system or IBMS.
- Duct should be tested for any leakage before commissioning of laboratory by soap bubble test or pressure decay test at +Lux Pascal pressure. Ducting should be of GSS material to avoid rusting of duct work.
- Structural stability to withstand 1.25 times maximum design pressure under supply and exhaust fan failure conditions (i.e., no wall distortion or damage should occur).
- The exhaust air from all the containment equipment and containment area shall be filtered through HEPA filters followed by BIBO system before discharging outside.
- Efficiency of HEPA filters should be better than 99.97% with 0.3 um particle size
- HEPA filter housing shall have provision of Isolation valves in both upstream and downstream side for decontamination of HEPA filters during maintenance.
- HEPA filter housing should have pressure differential meter to know the status for any choking of filters.
- Pre-filters shall be installed in upstream side of HEPA filters to increase the life of HEPA filters in supply air. Used pre-filters should be decontaminated before removal from the containment area.
- HEPA Filter housing should have in-situ leak testing facility to assure integrity and damage in installation of HEPA filter and leakage testing of HEPA filter sealing with its housing. Supply and exhaust HEPA filters housings should be located as close as possible to the containment space to reduce the containment duct length. HEPA filter housing should have provision for physical isolation using zero leakage bio seal dampers. Housing should also have provision of port for injecting chemical for decontamination of HEPA filters before their removal for replacement.
- In areas with higher contamination, double HEPA filters in series are recommended. HEPA filters may be required to be installed in parallel depending upon the quantity of air to be filtered based on containment area.
- HEPA filters shall be designed for approximately 50% of its rated capacity so that there is sufficient margin for dust loading as capacity of filter reduces with the choking of HEPA filters.
- Exhaust should be discharged at a safe distance from the supply air. Minimum distance between supply and exhaust should be 7m.
- Exhaust air should be discharged in such a direction that it has minimum impact of storm/ wind direction. Air from the containment space is to be discharged preferably from the roof and in vertically

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upward direction at a velocity greater than 3000 fpm (900 meter per minute) with cowl hood or at 135-degree inclination to prevent rain water entry.

- Redundant (1 working + 1 standby configuration) fan, pumps should be considered in supply and exhaust air ventilation systems. To prevent overheating of interior rooms, N+1 number of chillers should be considered (N being the number of best size DX machines).
- Fire Dampers provided in the supply and exhaust air systems shall be interlocked with the AHU blower motors such that in case of fire, the AHU fan motor should trip automatically.
- Air exit should occur only after HEPA filtration followed by BIBO system.

Equipment and Components:

- BIBO (BAG IN BAG OUT) System: Bag-In/Bag-Out filter housings shall be of Gasket seal type. Primary filters are side loading filter housings which have been designed to meet the air filtration needs of exhaust air. To minimize exposure to contamination while replacing and handling dirty filters, the housing incorporates a ribbed Bag-In/Bag-Out ring over which a heavy-duty plastic bag is attached. Once the initial filters are installed and the first bag attached, all filters (both dirty and new) are handled through the bag using the standard procedures. The housing shall have an assortment of filter arrangements, including prefilters, HEPA filters and other type filter media. BIBO system shall be of CRCA powder coated material and locking mechanism hardware is stainless steel with a brass nut.
- BIBO Unit shall be of 14 Gauge CRCA Powder Coated sheet complete with Bag Clamping Ring with shock cord for Filter change Elastic bagging ring bag mouth and Cam lock arrangement for filter sealing gauge to be provided across the filters with ports for both pressure gauge connections and differential pressure switch connection. DOP port to be provided across HEPA filter at Upstream and Downstream. BIBO Unit opening should be flanged end for duct connection BIBO Unit should be complete with 1 bank of H-14 HEPA filtration in series, Box type filters in aluminium anodized construction and Sub-micronic Glass fibre Media. Bag for BIBO unit should be in Food grade PVC construction with 150 microns thickness, 3000mm in length, 3 Nos Glove Sleeve.
- The BIBO unit should be selected for the below (tentative capacity) specified Airflow Standard HEPA filter size 610 mm x 610 mm x 300 mm = 3400 CMH @ 25 mm maximum allowable initial pressure drop:
- BIBO 01 – 11000 cmh (1 Working +1 Standby filters only)
- BIBO 02 – 13200 cmh (1 Working +1 Standby filters only)
- BIBO 03 – 8500 cmh (1 Working +1 Standby filters only)
- BIBO 04 – 4200 cmh (1 Working +1 Standby filters only)
- Exhaust Fan: High Static Exhaust Fan shall be provided in 2 Working +1 Standby motor only configuration with at least 50% system redundancy.
- Exhaust fan shall be SISW backward (or forward) curved inclined centrifugal fan with a direct driven, TEFC motor and vibration isolation base. Fan should be of GSS, the steel sheet should be JFE Galvazinc (Base metal cold rolled), JIS G3302, SGCC with Z22 (minimum coating weight on both sides @ 220 g/m²) zinc coating & Zero Spangle, skin passed, chromated and dry.
- Fans shall be driven by a variable frequency drive (VFD). The VFD should be pre-set programme for five different varying fan speed with selector switch for user operation. Fan and motor assembly shall be mounted on vibration isolators eliminating the need for external vibration isolators. Provision shall be made for belt tensioning. Motor should be of required capacity of Crompton Greaves/ Siemens/ ABB or equivalent of reputed OEM make. The fan should not exceed noise level of 75 db(A) from 1 m distance. A spare motor shall be provided in case of any burn out/breakdown for immediate repair/replacement which can be done by local engineer. 4-5 spare fan belts shall also be provided which can be replaced by local engineer in case of wear/tear.

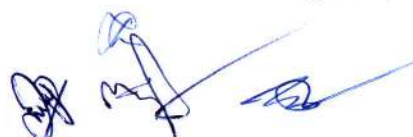
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- Exhaust Air System will be designed such that it ensures directional air flow by differential pressure gradient across different rooms and maintains minimum 8-12-fold air change per hour in the lab area (including separate exhaust ducting for BSCs installed).
- Ducting: Exhaust ducting (like supply) shall be made out of minimum 24-gauge GI sheet. The GI duct should be fabricated as per SMACNA standards. To prevent air leakage, all the lateral joints and flanged joints of GI ducting should be sealed using silicone sealant. All the ventilation ducting shall be leak proof and with thermal insulation (the colour of insulation material will not be black). This insulation is made of nitrile rubber or glass wool.
- Air Filtration: The exhaust air filter handling systems shall be provided with HEPA Filters such that it protects the maintenance staff from acquiring any infections while handling/replacing the filters -Bag in Bag out system (BIBO). It is essential that the maintenance person wears PPE while doing so. The HEPA filters will be located prior to exhaust unit at a place which is easily accessible and has adequate space for BIBO to function effectively. The HEPA filter housed in BIBO should have efficiency of H13 or H14 tested as per EN1822 at MPPS (Maximum Penetrating Particle Size). The HEPA filter plenums (Containment Housing) shall be made in SS 304 (14 gauge) with air tight and leak proof construction. The HEPA filter plenums shall be provided Isolation dampers at Inlet and Outlet and shall have provisions and facility to carry out on site HEPA filter scanning, testing and validation, magnehelic pressure gauge to monitor pressure drop across the HEPA filter, fumigation ports to allow IN-SITU decontamination of HEPA filters and Bag-In-Bag-Out facility for change/replacement of filters. HEPA Filters of 99.97% efficiency would be used in all exhaust. All the HEPA filters should have 0.3µm filtration.
- Supply Air system to be electrically interlocked (fans, dampers, electrical) with exhaust air system, to prevent sustained positive pressurization.
- An outside air duct completes with a controlled valve connected into the main laboratory exhaust duct on the suction and discharge side of the fan. A velocity pressure controller installed in the discharge stack complete with the required instrumentation to adjust the controlled valve such that the volume of outside air equals the deficiency in the volume of laboratory exhaust air.
- System should be complete with Exhaust stack, Bypass air plenum, Bypass damper with actuator, Isolation damper with actuator on suction and discharge sides. VFD rated Motor with class F insulation, Velocity sensor to control stack velocity and bypass air damper, Corrosion resistant coating etc. as required in complete to make system functional.
- Tentative Fan system cmh shall be based on BIBO
- ✓ Exhaust Fan System 01 – 11000 cmh
- ✓ Exhaust Fan System 02 – 13200 cmh
- ✓ Exhaust Fan System 03 – 8500 cmh
- ✓ Exhaust Fan System 04 – 4200 cmh
- Stack: MS stack anti-vibration pads, foundation bolts etc. Pump set will include thermal insulation of pump. Stack height shall be adequate as per the mentioned guidelines.
- HEPA Filters: HEPA filter shall be of rating 0.3 micron @ 99.97% efficient in 1 Working +1 Standby configuration in every lab/room.
- Accessories: Any other accessories needed to complete exhaust system shall be in the scope of work.
- Ducting: Ducting shall be of GSS material to avoid long run corrosion. Duct Insulation on supply air ducting shall be minimum 19 mm thick aluminium faced closed cell nitrile rubber.

Note: -

- Duct work shall mean all ducts, casings, dampers, access doors, joints, stiffeners and hangers.
- The ducts shall be Factory fabricated in BOX form as per SMACNA Standard from SS 304 sheets. Ducts flange joints shall be as per SMACNA standards.

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- The Factory fabricated duct in BOX form shall be used at site, L shape Factory fabricated duct shall not be used at site.
- The thickness of sheet for fabrication of rectangular ductwork shall be as under mentioned:

Longest Side	Minimum Sheet
750 mm and below	0.63
751 mm to 1500 mm	0.80
1501 mm to 2250 mm	1.00
2251 mm & above	1.25

Exhaust System Electrical Panel

- All panels shall be floor mounted sectionalized, compartmentalized type having compartments of suitable size. Indoor type Panel shall be minimum IP42 and Outdoor panel shall be minimum IP54.
- All panels enclosure, frame work and doors shall be of CRCA sheet steel of 2 mm thickness whereas gland plates shall be of 3 mm thickness with stiffeners.
- The bus bar shall be electrolytic grade high conductivity copper, with DMC/SMC supports of required capacity suitable for 3 phase 415 V A.C. Supply.
- All starter motor/fan panels shall be provided with following features
 - ✓ A/M switch and start stop push button.
 - ✓ Adjustable thermal overload trips on all phase.
 - ✓ Single phase prevention device.
 - ✓ Under voltage protection.
 - ✓ Latch on contacts with Trip mechanism to indicate fault tripping.
 - ✓ All the motor feeders to be designed as per Type 2 coordination with MCCB/MPCB isolators and starters as per standard.
 - ✓ All motor feeder MCB's shall be D curve.
- All out going MCCB's shall be provided with Thermal magnetic and microprocessor-based release with overload, short circuit and built-in earth fault protection, Digital Ammeter with cast resin, Suitable size CTs.
- All outgoing MCCB shall be rated as $I_{cs} = 100\% I_{cu}$.
- Cables used for power supply shall be XLPE power cables 1.1 Kv grade of aluminium conductor and end termination with brass compression gland aluminium lugs.

WALLS, DOORS AND FALSE CEILING

This involves design, supply, installation, fabrication of walls, doors, windows etc. surfaces required for BSL-3 labs as per the above-mentioned guidelines additional specifications applicable and fire and safety norms subject to approval by in charge.

Specification: -

- Entire BSL-3 lab area surfaces of walls, floors and ceilings shall be monolithic, resistant to liquids and chemicals and all gaps and penetrations are to be sealed. Wall and floor junction should be covered to walls and sealed.
- Modular false ceiling: The internal building finishes shall be monolithic, impervious, non-particle shredding, chemical resistant especially to Hypochlorite cleaning and suitable to withstand chemical use during decontamination/ fumigation. Modular false ceiling panels should be made for Clean Room

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application, pre-engineered 60 mm thick PUF panels with GPSP Sheets with PUF insulation. Both surfaces should be 0.8 mm thick filled both side with PPGI with PUF quality 40 kgm³ density. Panel are of tongue and groove type arrangement. GPSP sheet and has to be installed along the ceiling, to create an impervious shell which is fully sealed. The panels on inner side will be coated with Epoxy painted and powder coated on outer side. These panels must have good aesthetic appeal as well and have to be easily maintainable. The construction of false ceiling shall be strong to allow 1 person weighing 50-60 kg to easily walk/crawl above it for necessary work. Service window will be provided for access above false ceiling preferably outside the lab.

- WALL PANEL: Supplies of modular clean wall panel made up of 0.8mm thick both side PPGI Filled with PUF quality 40 kgm³ density. Panel are of tongue and groove type arrangement. Thickness: - 50 mm. Aluminium profiles for reinforcement along the periphery all accessories etc.,
- Internal wall panels should be pre-fabricated with GI frames and welded to form C-channel structural frame.
- The wall skin should be of GI composite panel, sandwich with PUF material, which acts as a thermal barrier. Space in between is sandwiched with PUF insulation and fire retardation purpose.
- The GI panel edges are sealed with Room Temperature Vulcanizing (RTV) silicone to the structural frame and fasten on both sides to form an airtight sealed panel.
- Wall panel system should be double skin 50 mm thick skin power coated and the thickness is 0.8/0.6 mm PUF as the insulation.
- Flooring shall be of 5 mm (3 mm + 2mm) of self-levelling industrial epoxy including screed compound for adhesion, 3 mm semisolid cladding of EPOXY will be applied over a uniform cemented flooring and 2 mm semi-liquid epoxy over 3 mm hardened surface with bubble free perfect smooth finishing completed in three steps: Cementing (Uniform Flooring), Hardening (3 mm epoxy) and smoothening (2mm epoxy). Epoxy used for this application will be self-levelling and clean room compatible. Flooring should be resistant against chemical, heat, acid or any kind of spillage.
- **Covings:** Covings in entire BSL-3 lab area and cook tank room shall be extruded aluminium powder coated clip-on type for all the wall to wall, wall to ceiling, wall to floor etc. joints of Radius R=70 mm. Extruded PVC / EPDM cove backup shall be considered for floor to wall joints in case of EPOXY flooring. Extruded aluminium double integrated with top track of the partition panels cove shall be considered. Three corner internal & external cove joining pieces in aluminium powder coated finish shall be considered.
- Extruded aluminium powder coated clip on type R 52 covings for the entire wall to wall and wall to ceiling etc
- All penetrations through walls, ceiling & floors will be sealed using a suitable caulking. Caulking shall be applied around pipes and conduit. The interior of electrical and cable conduit shall also be caulked.
- **Regular Metallic Doors (Seven No.):** Metallic Doors shall be used in BSL-3 area wherever Bio-safety doors are not coming. Air-Tight Doors for BSL-3 Lab area and cook tank room with gasket are constructed with powder-coated. Doors shall be minimum 45 mm thick made with PU paint. 0.8mm thick GPSP sheets on both sides with honeycomb kraft paper as infill and 1.2 mm thick GPSP powder coated door frames and hardware like SS push plate, SS 'D' handle, SS ball bearing butt hinges. Double glazed view/vision panel with Automatic Concealed door bottom drop seal and 1.2mm thick SS304 kick plate are to be provided in doors. The door is installed completely with pull-door-handle and door closer and shall be in electrical interlock mechanism. These Airtight Doors should have adequate gasket arrangement to provide airtight seal and may have a step-over seal. The interlock logic shall be such that while entering or exiting the facility, traffic from the other side should not get access, to ensure privacy and safety.

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- Door interlocking systems shall be complete with controller module, push button stations with LED indication, electromagnetic locks. To take care of malfunctioning of interlocking, alternative electrical switch to manually open the doors should be provided.
- **Double Glazing Windows/Vision Panels:** Enough Double-Glazing Windows in entire BSL-3 lab area and walls shall be made with 6 mm thick toughened glass on both sides and shall be fully glued fit and sealed along with desiccant to avoid condensation. Vision Glass on doors shall be fixed flush to both faces of the door / wall panels to provide ease of cleaning and maintenance. No crevices / joints / sloped profiles are used for fixing the glass to avoid contamination and dust accumulation.

EFFLUENT DECONTAMINATION SYSTEM (EDS)

This involves design, supply, installation, testing and commissioning of Electrically steam generation based EFFLUENT DECONTAMINATION SYSTEM (EDS)/ BLED tank/ Cook Tank as required for BSL-3 labs as per the mentioned guidelines fire and safety norms subject to approval by engineer in charge.

- ✓ The BSL-3 Laboratory facility shall be provided with a KILL tank/BLED/Cook Tank/EDS of suitable capacity with all the provisions of KILL Tank/BLED/ Cook Tank/EDS along with electrical steam generator of suitable capacity and the necessary pipeline connection with full protection under cover from Lab area to cook tank room at ground floor shall be the scope of work.
- ✓ The cook tank and steam generation area shall be at **negative pressure** on ground floor (-45 pa) compared to its surrounding to prevent spread of contaminations. Same shall be achieved by ducting from HVAC and Exhaust system installed for BSL-3 lab area.
- ✓ The Chemical Decontamination System for BSL-3 Laboratory effluent shall comprise of Two nos. Effluent Collection tanks (1 Working +1 Standby), each of 500 Ltrs. Capacity. The decontamination tanks shall be constructed in SS 304 (14 gauge) with chemical resistant lining/coating from inside suitable for use disinfectant chemical sodium hypo-chlorite, NaOH etc. The drain line from BSL-3 Laboratory containment area shall be terminated to the effluent decontamination tanks.
- ✓ The effluent decontamination tanks shall be provided with motorized OPEN/CLOSE valves connected with liquid level sensor such that when one tank get filled up to. 300 Ltrs. Volume, the supply valve shall automatically close and the supply valve of the standby tank shall automatically open to allow collection of effluent.
- ✓ During this time, the effluent collected in filled up tank can be decontaminated by introducing disinfectant chemical. This cycle shall be repeated automatically vice-versa with both the decontamination tanks and the process shall be automatically controlled through a control panel.
- ✓ One number chemical storage tank in SS 304 (14 gauge) fitted with transfer pump and measuring device, piped and connected to both the decontamination tanks shall also be provided for introducing disinfectant chemical into the decontamination tanks.

Specifications: -

- Effluent Collection Tank: 500 L each (1 Nos.)
- Decontamination Process Tank: 500 L each (2 Nos.)
- Motorized valve connected with liquid level sensor through control panel
- Disinfectant Chemical storage tank constructed in SS 304 (16 gauge) with chemical resistant lining/coating from inside suitable for use of disinfectant chemicals like sodium hypo-chlorite, NaOH etc., of 200 Ltrs capacity
- Disinfectant Chemical dosing pump(1W+1S) in non-corrosive material construction and seal suitable for use of disinfectant chemicals like sodium hypo-chlorite, NaOH etc.
- Non return valves in non-corrosive material construction and seal suitable for use of disinfectant chemicals like sodium hypo-chlorite, NaOH etc.

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- Interconnecting piping including piping for chemical dosing
- Pumps for discharging decontaminated effluent into sewer/drain (1W+1S)
- Power and control cabling/wiring for pumps and motorized valves with control panel

MISCELLANEOUS COMPONENTS

This includes the other important static and dynamic components and equipment required for BSL-3 labs and in the scope of work.

Wet Shower without Biosafety Doors (With normal metallic doors):

The scope of work involves design, supply, installation, testing, commissioning and validation of 01 numbers Wet Shower with metallic Doors as required for BSL-3 labs as per the mentioned guidelines and fire and safety norms subject to approval by engineer in charge.

- Shower should be interlocked electronically. Additionally visual and audible alarms shall be provided in case of system failure. There should be manual override facility to interlocking in case of emergency.
- Drain water from such shower cannot & should not be disposed of in municipal waste without treatment. It must be ensured that such bath water flows down to EDS for treatment and must not remain stagnant on floor.
- The Shower system will comprise of airtight chamber with full welded body, fitted with two interlocked airtight metallic doors. The Shower system shall be mounted on sealing flange to provide the bio seal to the containment boundary wall.
- Shower shall be connected to HVAC and exhaust system.
- Construction material shall be Stainless steel with Grating Floor, walls and ceiling. Ring mount and cubicle shower systems may be considered.
- Shower system shall be equipped with Easy grip on/off pull handle/button operated with low torque/soft touch.
- Shower system shall be Barrier-free units with stainless steel piping and nozzles.
- Cabinet in SS304
- Frames for HEPA Filters and Prefilters
- Horizontal vertical covings to avoid dust collection
- In-built protective mesh for main HEPA filter bank
- Protective grille for scavenging prefilters
- HEPA filter – supply & exhaust
- pre-filter – Scavenging
- Pre-filter – Intermediate
- Custom built motor blower with VFD
- Digital pressure monitors with High/Low alarm and acknowledgement switch for all filters
- Horizontal covings on the inner side of the unit along the floor to avoid dust collection
- Emergency Shower: Emergency shower shall be provided based on Risk analysis. Shower should deliver a pattern of water with a diameter of at least 50.8 cm (20 inches) at 152.4 cm (60 inches). This diameter ensures that the water will come into contact with the entire body – not just the top of the person's head. ANSI also recommends the shower head be between 208.3 and 243.8 cm (82-96 inches) from the floor. The minimum volume of spray should be 75.7 litres/minute (20 gallons/minute) for a minimum time of 15 minutes. The shower should also be designed so that it can be activated in less than 1 second, and it remains operational without the operator's hand on the valve (or lever, handle, etc.). This valve should not be more than 173.3 cm (69 inches) in height. If enclosures are used, ensure that there is an unobstructed area of 86.4 cm (34 inches) in diameter.
- Provision for shower system integration into the IBMS shall be considered.

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Air Shower without Biosafety Doors (With normal metallic doors):

- An Air Shower is designed to supply Class 100 HEPA filtered air at high velocity to remove particulate matter from the person entering the cleanroom.
- The air shower rooms put at negative pressure of (-) 15 Pa from the set point for pressure gradient.
- Air Shower is a self-contained air chamber installed at the entrance to cleanrooms in order to minimize the number of particulate contaminants entering the cleanroom. Personnel move through the air shower while particulate contaminants are washed off with high velocity HEPA-filtered air jets. The significance of this is that the high air velocity, of about 6000 FPM, ensures efficient scrubbing necessary to remove the particulate matter.
- Contaminated air is then taken in through the base unit, filtered, and re-circulated into the chamber.
 - Two stage filtration
 - SS 304 doors with double walled flush glass view panels & door closer
 - Air cleanliness - ISO Class 5 (ISO 14644-1:1999 (E))
 - Air Velocities- 6000 fpm
 - Vibration Level - Minimum
 - Noise Level - Less than 70 dB
 - Door panels interlocked with emergency push button for exit
 - Pressure monitors
 - LED light
- Shower should be interlocked electronically. Additionally visual and audible alarms shall be provided in case of system failure. There should be manual override facility to interlocking in case of emergency.
- Drain water from such shower cannot & should not be disposed of in municipal waste without treatment. It must be ensured that such bath water flows down to EDS for treatment and must not remain stagnant on floor.
- The Shower system will comprise of airtight chamber with full welded body, fitted with two interlocked airtight metallic doors. The Shower system shall be mounted on sealing flange to provide the bio seal to the containment boundary wall.
- Shower shall be connected to HVAC and exhaust system.
- Construction material shall be Stainless steel with Grating Floor, walls and ceiling. Ring mount and cubicle shower systems may be considered.
- Shower system shall be equipped with Easy grip on/off pull handle/button operated with low torque/soft touch.
- Shower system shall be Barrier-free units with stainless steel piping and nozzles.

BSL-3 lab standard Autoclaves (one Horizontal and one vertical) with Airtight Doors:

The scope of work involves design, supply, installation, testing, commissioning and validation of 01 numbers (near wash area) Autoclaves with steam generators with airtight Bio-safety doors as required for BSL-3 labs as per the mentioned guidelines and fire and safety norms subject to approval by engineer in charge.

- The autoclaves shall be double door, rectangular, steam operated, high pressure-high vacuum, suitable for horizontal loading of waste. The autoclave shall be with bio-seal design. The chamber size shall be approximately 600 mm x 600 mm x 1200 mm. The autoclave shall be free standing type. The Autoclave shall be PLC controlled, programmable and shall be loaded with different pre-programmed decontamination and sterilization cycles.
- The Autoclave chamber shall be constructed of heavy-duty SS 316 (min. 6 mm thickness) with full argon gas welding. The chamber material and construction shall meet ASME standards for unfired vessels. The chamber shall be duly reinforced with the help of carbon steel. Doors and jacket shall be constructed of stainless-steel sheet of 304 grade (min. 5 mm thickness). Doors must be provided with automatic safety

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locking and unlocking devices. All doors shall be with gasket to ensure a high temperature seal. Chamber and doors shall be designed for working under positive pressures up to 31 PSIG at temperature up to 135-degree C.

- The autoclave shall be insulated with 50 mm thick resin bonded glass wool to minimise heat loss and restrict the skin temperature within reasonable limits so as not to cause burn in case of accidental touch. Pipes and fittings shall be of stainless steel and bronze. Key locked main power switch should be provided for additional safety and security.
- The autoclave shall be provided with a vacuum pump mounted on a mini skid. The vacuum line shall be provided with an absolute vent filter cartridge (0.22 micron or better) for safe vent and shall allow In-Situ decontamination of filter for Safe Change when the filter is to be accessed. The autoclave control system shall be PLC controlled, programmable and shall allow up-to six pre-programmed cycles. The logic of pre-programmed cycles shall be developed as per the requirement of the end use.
- The in-built steam generator shall be provided with the autoclave. The steam generator shall be fabricated from SS 316 L (16 gauge) with industrial immersion heater of reputed make. The immersion heaters shall be heavy duty type in stainless steel construction. The heater shall be of suitable capacity to achieve the required operating temperature and pressure in about 30 minutes to start the
- Autoclave cycle and should be capable of maintaining the pressure and temperature thereafter during various load cycles of the autoclave.
- Autoclaves should be interlocked electronically. Additionally visual and audible alarms shall be provided in case of system failure. There should be manual override facility to interlocking in case of emergency.
- Drain water from such Autoclaves cannot & should not be disposed of in municipal waste without treatment. It must be ensured that such bath water flows down to EDS for treatment and must not remain stagnant on floor.
- Provision for Autoclaves integration into the IBMS.

Biosafety Doors:

This involves design, supply, installation of 10 numbers (08 nos. in BSL-3 lab area and 02 nos. in Effluent decontamination room/cook tank room) Biosafety Doors within the various labs as required for BSL-3 labs as per mentioned guidelines and fire and safety norms subject to approval by engineer in charge.

- Construction material shall be Stainless steel with mechanical biosafety seal.
- Doors shall be equipped with Easy grip on/off pull handle/button operated with low torque/soft touch.

Note: -

The 10 numbers quantity is minimum and tentative and required numbers of Biosafety doors shall be provided as final design. Recovery shall be made or extra shall be paid for additional quantities as applicable over minimum quantity. Bidders are requested to quote accordingly.

Dynamic Pass Boxes:

This involves design, supply, installation of 02 numbers Dynamic Pass Boxes as required for BSL-3 lab area as per the mentioned guidelines and fire and safety norms subject to approval by engineer in charge.

- The pass box is used for the transfer of materials in between two contaminated rooms of different contamination level class or between cleanroom and non-cleanroom. Door interlocking function is a part of the system which maintains the condition that one door only can be opened at time.
- Dynamic Pass box shall house Magnetic Differential Pressure Gauge, HEPA Filter with 99.97% efficiency down to 0.3 microns, Pre-Filter of EU 6 Grade with efficiency of 95% down to 5 microns, Body Structure SS 304 with no. 4 Finish levels, Florescent On/Off Switch for UV light, Hour meter for UV, Electromagnetic type Door interlocking. Doors are provided with double glazed view panel.

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- Dynamic Pass Boxes shall be provided for transfer of biological materials. Pass boxes should be equipped with electrically interlocking door and visual or audible alarm to prevent opening of both doors simultaneously.
- Double door pass boxes shall be considered with gaseous decontamination.
- Construction material shall be Stainless steel.
- Doors shall be equipped with Easy grip on/off pull handle/button operated with low torque/soft touch.

Note:

The numbers quantity is minimum and tentative and required numbers of Dynamic pass boxes shall be provided as final design. Recovery shall be made or extra shall be paid for additional quantities as applicable over minimum quantity. Bidders are requested to quote accordingly.

Dunk Tank:

The scope of work involves design, supply, installation of minimum 03 number dunk tank as required for BSL-3 lab area as per the above-mentioned guideline and fire and safety norms subject to approval by engineer in charge.

- ✓ The Dunk Tank is used for the transfer of materials in between two contaminated rooms of different contamination level class or between clean room and non-cleanroom. Door interlocking function is a part of the system which maintains the condition that one door only can be opened at time.
- ✓ Dunk tank allows for the passage of materials that are heat sensitive or can of be decontaminated using a liquid disinfectant across the bio containment barrier. Constructed from 304 stainless steel the dunk tank can be used with multiple disinfectants such as (phenolics, glutaraldehydes, quaternary ammonium compounds, hydrogen peroxide, alcohols, proteinated iodines, and sodium hypochlorite).
- ✓ Doors are provided with double glazed view panel.
- ✓ Dunk tanks shall be provided for transfer and taking out of biological materials from lab area to outside. Dunk tanks should be equipped with electrically interlocking door and visual or audible alarm to prevent opening of both doors simultaneously.
- ✓ Dunk tanks shall be considered with gaseous decontamination.
- ✓ Construction material shall be Stainless steel.
- ✓ Doors shall be equipped with Easy grip on/off pull handle/button operated with low torque/soft touch.

Note: -

The number quantity is minimum and tentative and required numbers of Dunk tank shall be provided as final design. Recovery shall be made or extra shall be paid for additional quantities as applicable over minimum quantity. Bidders are requested to quote accordingly.

Biosafety Cabinet Class II- A2 Type (Quantity -4)

- Cabinet Should be of Class II Type A2 (Size:- 4 Feet)
- External dimension without stand (WXDXH): Approx. 1350 X 800 X 1500 mm
- Internal work area dimension (WXDXH): Approx. 1200 X 600 X 650 mm
- Main Body of the cabinet should made up of 16/18 gauge stainless steel with powder-coated exterior finish, working surface and interior body should be 16/18 gauge 304 SS type with single piece without paint and side joints
- Cabinet should have vertical laminar airflow with negative pressure
- Cabinet should have ULPA/HEFA class H-14 filter with efficiency of 99.99% at 0.3 μm particle size as per EN 1822 and to provide 70% down flow and 30% exhaust with under pressure condition in the working area.
- Cabinet should be with Microprocessor controlled touchscreen/digital real time monitor/display for inflow and downflow air velocity, ULFA/ HEFA filter pressure, usage time of filters and UV light functioning.

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- Control panel with easy-to-clean membrane touchpad for system operations (blower, lights, mute) on the front of the cabinet.
- Ergonomically Sloped Front and angled corners
- Cabinet should have energy efficient motor –ECM
- Cabinet should have very low noise level (<60dBA) and vibration free
- Cabinet should have Fluorescent tube lights with >500 lux illumination
- Cabinet should have high capacity centrifugal fan for impulsion and exhaust with sensors.
- Cabinet should have inflow velocity 0.45m/s or more and as air cleanliness of Class 3 level.
- Cabinet should have down flow velocity 0.30 m/s or more
- Cabinet should have Stainless Steel basin with drain under the working surface.
- Audio and visual alarm available for power failure, out of range and incorrect laminar airflow velocity and frontal air barrier velocity, end of life cycle of UV lamp, fan motor malfunction, saturation of ULFA/HEFA H-14 filters, un-correct position of front sash-window.
- Automatic activates of fluorescence light as well fan and switched off of UV light in the cabinet when the sash of window is opened. When the window is fully closed, the UV light is switched on and fluorescent lamp and fan are turned off automatically.
- Cabinet should have UV disinfection device /germicidal kit/internal UV light
- Cabinet should have Gas service fittings
- Cabinet should have support stand with attached caster wheels for easy movement.
- Frameless sash that is easier to clean.
- Cabinet should have at least three power sockets.
- Cabinet should be certified by NSF 49/EN 12469 and UL certifications to meet international and industry standards of performance and protection. It should also have ISO 14644 and IEC 61010.
- Vendor should provide IQ/OQ/PQ from original principal manufacturer.
- Vendor must also provide Standard Operating Procedures (SOP)
- Vendor must arrange to do a mandatory third-party validation.
- The vendor must document the compliance of detailed specifications in their quotations highlighting clearly the specifications in their original brochures/catalogues, should also be mentioned at company's website.
- Provide list of customers with contact details with email address and performance certificates. The equipment may be considered after getting satisfactory report from them.
- Vendor should provide purchase order issued strictly for the same model in last two years to any government organization.
- Warranty: 5 years onsite comprehensive warranty of cabinet, filters and accessories from the date of installation including replacements of parts and labour.

Laboratory work stations (numbers as per the Lab design)-

- Frame shall be made up of SS 304, with nylon cushion/bushing for the legs, non-particle shredding material and shall be chemical resistant to allow chemical disinfection. It should be strong to hold the granite top/workbench as well as equipment places on the workbench. There shall be drawers or safe in the workstation.

Garment Storage Cabinet-

- Garment storage cabinet that can be locked shall be provided in the Change room/Ante Room. It shall be of SS 304 with two compartments and shelves for storage of clean items of suitably large dimension to fit in the Ante/ Change Room (size to be consulted with site i/c)

Coat hangers

- 8-10 individual hangers made of SS30, in group of 4-5 each, will be provide to hang gowns/ aprons in Ante Room and change room (in consultation with site i/c)

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Shoe rack-

- It should be made of SS 304 with 5 shelves, open type and wide enough to hold four pairs of shoes in each shelf and shall be able to fit in available space as per design.

Wash Basin :

- Modular standalone hand washing sinks made of SS 304 with elbow or foot operated mechanism shall be provided as per design inside lab and in change or ante room. Wall hanging soap dispenser to be provided along with each wash basin unit. A Tissue paper rack with a mechanism to pull out tissue papers, will be provided near the wash basin to dry hands. Water lines that penetrate the TB Containment space shall be equipped with back-flow prevention devices. Outlet pipes should be made of PVC with closure outside lab made of SS plate.

Laboratory Chairs:

- Laboratory grade hydraulic SS chairs with back support, foot rest, rotating type with castor wheels at the base, shall be provided by contractor.

Trolleys:

- Two tier trolleys made of SS 304, size 2'x1'6" with side walls to prevent fall of items from sides and wheels at bottom for smooth movement, shall be provided. The trolleys for transportation of material from lab to the Autoclave room shall be provided with a lid to prevent direct exposure of material to outside.

IEI, signages, CCTV, LAN, IBMS, UPS, EPBAX, Fire alarm and public address system, firefighting system and Access control works:

- Light fittings shall be clean-room fittings/ BSL laboratory fittings and all conduits, switch sockets, DBs etc shall be air sealed to avoid any penetration.
- All BSL-3 lab area is 100% DG backed with dedicated 125 KVA DG set and 10% lighting with at least one light in each lab and at least 2 lights in corridor are on UPS backup.
- Lighting lux level shall be 500 Lux in lab area, suitable and adequate numbers of Power Points, Sealed type Electrical Switches and Sockets suitable for laboratory fumigation (IP6ip5 or better), Sealed type Light Fixtures (surface/recess mounted with minimum openings/ cut out) suitable for laboratory fumigation (IP65 or better), sealed electrical conduit leading to containment areas, Full Power Back up arrangement with Auto Power Start arrangement (AMF Panel), UPS for critical installations, Emergency Lighting to prevent blackout, Proper Earthing for equipment protection, Automatic Phase Change over, Electrical System Interlocking for HVAC System Operation Sequence with Fire Alarm System etc. As a general principle, design must ensure that failure of electrical and mechanical systems. Therefore, sufficient redundancy should be kept based on risk analysis based on criticality.
- Separate power and lighting panels should be provided for containment and non-containment spaces. All main distribution panels should be located outside containment space for ease of maintenance.
- All the inside and outside opening of the conduit, running from non- containment area to containment area and across different containment areas having differential negative pressure, should be sealed to prevent circulation of air. Sealing should be done at accessible space for inspection and maintenance.
- All lights should be energy efficient, as per Energy Conservation Building Code (ECBC).
- Lighting should be in the range of 500 lux in the laboratory and in cleaning cycle area.
- All signage, emergency lights, IBMS, communication network, exhaust system to maintain negative pressure and other critical equipment should be provided with online UPS with minimum half an hour backup. There should be a standby UPS of 100% capacity of designed capacity UPS i.e 1+1 configuration. 30 + 30 KVA (with 100% redundancy in 1 working + 1 standby configuration) shall be provided for BSL-3 lab areas. Exhaust system shall be on UPS supply.
- Electrical load should be divided equally on each phase. There should be a centralised voltage regulator to supply +/- 10 % of rated electric supply. Voltage regulator shall be kept outside the facility.

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- Wiring for interlocking of double door biosafety doors, air locks, pass boxes, double door autoclaves, pass boxes, dunk tanks should be well planned so that both the doors cannot be opened simultaneously.
- The electrical system must have sufficient circuits and power to support decontamination need of the facility.
- Electrical load may be properly calculated during the design stage, by keeping in mind, any future addition of equipment.
- The laboratory should be equipped with communication network between containment area and outside support area.
- It is recommended to install CCTV in containment area to monitor the laboratory working from outside the containment area.
- LAN wiring for internet access inside the lab with sockets to be provided at strategic locations (near work benches) in all the BSL-3 lab Room.
- A suitable EPABX System shall be provided for the laboratory. Telephone instrument with line will be kept in entry room, all the BSL-3 lab rooms and any other place as suggested Incharge. Telephone with speaker for hands free operation will be provided inside all the BSL-3 lab Rooms.
- Fax, LAN network should be provided for electronic transfer of information and data within the containment laboratory as well as from containment laboratory area to outside area. Electronic transfer of information and data should be encouraged, while avoiding paper transfer. However, in case paper has to be taken out from containment area to non-containment area, it must be decontaminated through autoclave/fumigation chamber/Air-lock/dunk tanks etc.
- All penetrations should be sealed with non-shrinkable sealant and tested for leakage at the time of testing and commissioning.


Power Distribution:

- Sufficient nos. of equal size aluminium XLPE armoured cables (one run of cable is sufficient to cater the all loads to supply power to all BSL-3 area services and one extra run shall be provided for 100% redundancy) coming from main essential LT panel (which got feed from dedicated 125 KVA10 DG set) shall supply power to terrace area electrical panel. Both terrace area panel and main essential LT panel shall have provisions to terminate 2 runs of cables on same switchgear.
- Outgoings to terrace area panel shall feed to HVAC electrical panel, Exhaust system electrical panel, Dedicated BSL-3 lab area Lighting Panel, Dedicated BSL-3 lab area Power Panel (which shall feed power supply to all equipment as well apart from normal raw power switch sockets), cook tank and steam generation room EDS system electrical panel/DB, UPSs etc. and all associated electrical panels required for providing power supply for proper functioning of BSL-3 lab area.

CCTV Monitoring Devices

- Camera to continuously monitor the activities inside and outside the Lab by providing Central CCTV Monitor. Five/Six Camera unit should be installed (one/two outside the lab covering the entry and corridor area, one in ante room and four inside BSL-3 lab Room and one covering AHU Area). Supply, installation, testing and commissioning of the following shall be done:
 - Colour Camera 1/3" CCD, IR type, dome shaped, 480 TV lines resolution which work in low light.
 - 6 Channel standalone / Network version DVR Make: DAHUA /equivalent reputed OEM
 - Hard Disk with 1 TB (TERA byte) Capacity -Make -Seagate or equivalent reputed OEM
 - 6 Channel Power Supply of reputed Make
 - Supply Laying of Co-axial Cable with necessary Accessories
 - Wall mounted monitor (at least 20 inch LED/LCD) located in entry room or as suggested by Incharge.

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PLUMBING SYSTEM

This covers the requirements of supply and drainage piping used for service water, wastewater, hot and cold water, processed water etc. to be installed in BSL -3 area. The supply, installation, testing and commission of the entire piping supply and drainage system in BSL-3 labs shall be in the scope of work and nothing extra shall be paid for that.

Supply System

- Water supply from overhead tank to lab area, sinks, lab taps, autoclaves, showers, pass boxes, EDS, washing area, fumigation area, dunk tanks and all other needed areas are to be regulated and sealed to avoid contaminations.
- The internal supply system should use the minimum of pipe work and remain water/airtight at all joints and connections.
- The entire supply system should be made of acid-resistant materials like CPVC/ SS/ ABS/ PVDF.
- The supply system should allow easy access for inspection and maintenance.
- Ensure that pipes and connections are leak proof to avoid flooding behind modular walls.

Drainage and Waste Systems

- All Drainages from autoclaves, showers, pass boxes, EDS, washing area, fumigation area, Lab sinks, dunk tanks and all other potential effluent areas are to be regulated and sealed to avoid contaminations.
- The internal drainage system should use the minimum of pipework and remain water/airtight at all joints and connections.
- The entire drainage system should be made of acid-resistant materials like CPVC/ SS/ ABS/ PVDF.
- The internal drainage system should be connected to the main drainage system as far downstream as possible to ensure maximum dilution.
- The drainage system should allow easy access for inspection and maintenance.
- The effluent drain shall be from main header downs vertically to EDS .
- Supply and Drainage pipes shall be installed with slopping lines. Back flow preventers may be used to isolate branch water lines. For cleaning purpose and to avoid contamination, piping should be mounted at some gap from the wall.
- Each floor drain should have minimum 125 mm deep trap, which should be directly connected to the liquid waste decontamination system (EDS). It must have cleanout plugs within the containment zone. Liquid waste pipe should be acid and chemical resistant and must be leak proof. Drainpipe should be easily cleanable and preferably of 150 mm in size.
- A foot, elbow or automatic operated hand washing station should be provided near the exit of each functional space. Sink should be acid and chemical resistant, preferably of SS or epoxy coated resins.
- Ensure that pipes and connections are leak proof to avoid flooding behind modular walls.

Labelling to be done as per following details:

- Biohazard label should be placed outside the laboratory.
- Labels for all switches (to be provided) including in the MCCB panels, LT Panel and AHU Control panel
- Labelling of all the BSL-3 Lab rooms and Ante Room/ Change room including Emergency exist.
- BSL-3 laboratory layout should be provided at the entrance of Lab.

TESTING AND PRE-COMMISSIONING

This chapter covers the requirements of mandatory tests to be carried out for services and installations in BSL -3 area. The arrangement for testing and commission of the entire BSL-3 labs shall be in the scope of work and nothing extra shall be paid for that. The scope of work involves testing and commissioning as required for BSL-3 lab area as per the mentioned guidelines and fire and safety norms.



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ESSENTIAL TESTS TO BE CARRIED OUT DURING INSTALLATION OF BSL-3 LABORATORY:**S. Leak testing of supply and exhaust duct work and isolation valves:**

- Leak test should be conducted in all the duct portions that are potentially exposed to contamination i.e., from respective containment rooms to isolation valves.
- All welds and duct joints shall be fully exposed and accessible for inspection and repair until testing is completed and validated.
- Duct and plenums should be isolated by closing isolation dampers, which shall be pressurized to +1000 Pa. All the joints need to be physically inspected for any leakage
- If any leakage is found, it needs to be repaired and again pressurized to +1000 Pa. Leakage can be tested by soap bubble test or pressure decay method.

Acceptance:

- ✓ No leakage assessed by soap bubble test in duct is acceptable.
- ✓ Alternatively, duct work may be tested by pressure decay method.
- ✓ Allowable leakage not more than 0.1% of volume of duct

Factory testing of HEPA filter Housings, Isolation valves, Airtight gates and other critical components:

- HEPA filter Housing, Isolation valves, Air-tight gates and other critical components should be tested at the manufacturing unit by pressure decay method as per ISO/JEC 17025/Bureau of Indian Standards/Quality Council of India certified third party organization.

Acceptance:

- HEPA filters having leakage less than 0.01% down to 0.3 microns particles are acceptable
- S. Field testing of HEPA filters and HEPA filter housings after installation at site:
 - Integrity of HEPA filter and Filter housings should be tested in situ by Soap bubble test and Pressure decay method.
 - HEPA Filters may be tested after installation
 - Any pinhole leakage found during scanning is repaired and scanned again

Acceptance:

- ✓ No leakage in filter housing is acceptable.
- ✓ Alternatively, integrated filter housing may be tested by pressure decay method.
- ✓ Pressure drop less than 0.1% duct volume /min is acceptable.
- ✓ HEPA filter having leakage less than 0.01% down to 0.3 microns particles is acceptable.

Leak testing of containment spaces:

The purpose of testing of containment space is to determine the minimizing the leakage through walls, floors, ceilings, penetrations for service pipes, ducts, electrical conduits, and other containment barriers of containment space. Testing is done by pressuring positive pressure by approximately 200 Pa and monitoring the air pressure during the test period. Testing is done using following method:

- Sealing the supply and exhaust openings, closing all doors and other openings in the containment perimeter.
- Installing inclined manometer/ pressure differential meter of minimum 0-1000 Pa scale and 10 Pa least count.
- Pressuring positive pressure to 125 Pa.
- Visual inspection of possible leakage spaces.

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- Soap bubble testing
- Repairing any leakage observed
- Repeating the test with 250 Pa.
- Monitoring pressure decay test for 5 minutes
- Record pressure differential after every minute
- Release the pressure slowly after completion of monitoring period

Acceptance:

- ✓ Pressure drops less than 125 Pa (Half of original 250 Pa) in 20 minutes, is acceptable.

Differential pressures and/ or directional air flows between adjacent areas as per design parameters:

- Differential pressure meter/ pressure manometers installed at predetermined spaces monitored and readings recorded while doors are operated as per SOP.
- Negative pressures of different pressure zones should not equalize during normal operating of doors. Directional air flow is tested with the visual inspection of smoke patterns while testing is conducted with the help of smoke generating pencil.

Acceptance:

- ✓ Unidirectional smoke pattern from area of low contamination to high contamination, is acceptable.

Testing of Interlocking of airlock doors, pass box doors, dunk tank doors, entry- exit doors, wet shower doors etc.:

- Air-lock doors should be tested for leakage by Soap bubble test and Pressure decay test.
- Once dirty side door of air lock is opened, air lock gets contaminated; therefore, outer side door/ clean side door should only be opened after air lock has been decontaminated.
- Formalin fumigation is one of the methods recommended for gaseous decontamination.
- Testing of air lock should be done as per SOP adopted for the lab.
- Interlocking of dirty side door and clean side door is tested as per SOP adopted for the Lab. Both side doors should not be opened at the same time. Once the dirty side door is opened in air lock/ pass box/ autoclave, then the clean side door should open only after the chamber has been decontaminated as per the SOP adopted in the lab. In case of entry exit doors, once the dirty side door is opened then the clean side door should open only after dirty side door has been closed and shower has been taken (it is also recommended that dirty side door should open after one air change of the shower room).

Acceptance:

- ✓ The working of interlocking of doors as per SOP adopted is acceptable.

Testing of Steam Autoclaves:

- Steam autoclaves are tested depending upon the number of programs available in the Programmable Logic Controller (PLC) used in the facility as per end use and design. Effectiveness of decontamination depends on loading factors; material being decontaminated that influence the temperature to which material is subjected and the contact time. Packaging, size of container and their placement in autoclave must allow steam penetration and must be arranged so that steam circulation in the autoclave is free. Some important decontamination programs are meant for/directed towards:

- ❖ Liquids
- ❖ Liquids with pre vacuum.
- ❖ Nonporous solid materials
- ❖ Nonporous solid materials with vacuum.
- ❖ Fabric material with pre and post vacuum

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- It should be ensured that gauges, thermocouples are calibrated. Depending upon the temperature, the exposure period varies from material to material. For testing of effective sterilization, chemical indicators can be used. Biological indicators are recommended for the same.

Note:

- Chamber temperature should always be more than 121 or 134°C as per the case. During testing if chamber temperature comes down from 121°C or from the set temperature, then time counter should be reset to zero.

Acceptance:

- ✓ Appropriate working of chemical/ biological indicators is acceptable.

Note:

Any other testing required as per DBT, ICMR, WHO etc. guidelines shall be in the scope of work.

COMMISSIONING, VALIDATION AND CERTIFICATION OF BSL-3 LABORATORY

This covers the requirements of mandatory commissioning, validation, and certifications to be carried out entire BSL -3 labs. The arrangement for commissioning, validation and third-party validation of the entire BSL-3 labs shall be in the scope of work and nothing extra shall be paid for that.

The scope of work involves commissioning, validation, third party validation and certifications as required for BSL-3 labs as per the mentioned guidelines and fire and safety norms.

Validation shall be done at Zero Load (Zero load means just after testing and commissioning of all installations) and Full Load (Full load means after 100% occupancy of personnel and equipment and labs are running on real world scenario)

General Guidelines to be followed:

- **Commissioning:** Commissioning by verification of physical construction with predetermined performance criteria and documentation of critical containment components, equipment starting, adjustments of parameters, Control System Calibration, Balancing and Performance Testing. Commissioning procedure for the laboratory should be well designed and implemented to verify the safety aspects of facility operation. Commissioning of the facility shall include all critical elements such as airflow patterns and negative pressures within isolators, biosafety cabinets, temperature profiles in autoclaves, procedures for decontamination and sterilization, verification of light lux level, operation of HVAC systems, Exhaust system, chilled water pumps capacity, air quantities at outlet diffusers / grilles, air curtains, steam generation room, clean room garment storage cabinet, floor traps, drains, dunk tanks, checking of ceiling panels, pass box, shower cabinets/air shower, water outlets, air leak in ducts as well as plenums, doors and view panels along with functioning of all the alarm systems. Additionally, ensure proper commissioning of all the basic requirements as per the approved layouts, including electrical connections (raw, essential and UPS), local area network (LAN) connections, servers, water connections, sewage connection, hardware fitting, alarms, telephones and intercoms, functioning of the BMS with all the desired parameters, fine setting of access control and all the inventories.
- **Validation:** Validation of the BSL-3 facility should be conducted by ISO/IEC 17025/ Bureau of Indian Standards/ Quality Council of India certified agency, in liaison with the Laboratory In-charge, Biosafety Officer, director works and RAJUVAS teams. The validation process aims to ensure biosafety and biosecurity concerns to the workers and the surrounding environment as well as adherence to biosafety regulations of the country.

The procedure for Testing, Commissioning and Validation of the facility shall be as per Annexure III of Guidelines of Department of Biotechnology Ministry of Science and Technology Government of India 2020. Taking

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statutory approvals from concerned bodies shall be under contractor scope of work and shall be the part of Validation. The validation should essentially incorporate the following: clean room validation, Air Balancing test, Room negative Pressure Test, Particle Count Test (at REST) Temperature & Relative Humidity test Light level test, Spore strip test After completion of the construction and installations, the entire laboratory facility, all the equipment, systems and services shall be validated by the contractor under supervision of a committee of the RAJUVAS/PGIVER/Director works/Third Party as decided by department.

Prior to validation, the contractor shall prepare and submit a detailed Validation Document for approval. The Validation Document shall provide the detailed procedure for validation, parameters for validation, validation schemes and formats for recording the validation details. The validation results shall be recorded and documented. The contractor shall provide all the instruments, tools, tackles, manpower etc. required for the validation process. Documentations of validation shall submit to Internal technical Committee Desk constituted by RAJUVAS for Review. Committee shall include representatives/ nominees of DBT/ICAR/ DST/ MOEF/ICMR/ RCGM/ host organization and Experts including Engineers (as applicable and decided by RAJUVAS).

- **Statutory Approvals:** The approval from IBSC/RCGM/DBT/ICMR needs to be sought. The required statutory approvals from authorities like Fire Authorities, Municipal corporation, Pollution Control Board, Electrical Inspectors, Natural climatic safety, and steam generation inspection etc., if required and as applicable shall be obtained by the contractor. RAJUVAS shall only provide the required assistance in getting such clearances and approvals.
- **Certification:** The procedure for Certification of the facility shall be as per Annexure V of Guidelines of Department of Biotechnology Ministry of Science and Technology Government of India 2020. For Certification, an inter-ministerial committee to be constituted. Committee shall include representatives/nominees of DBT/ ICAR/ DST/ MOEF&CC/ ICMR and Experts including Engineers as decided by RAJUVAS. The committee shall examine the documentation submitted. The committee may also consider visiting the facilities before certification and contractor shall arrange the same. The committee shall review the documents whether validation done by an ISO/IEC 17025/Bureau of Indian Standards/Quality Council of India certified Third party organization.
- Appropriate firefighting system must be there in BSL-3 area as per requirement.

The Certificate shall be issued for **five years** shall spell that documentation for Testing, Commissioning and Validation of the facility is certified compliant with due guidelines.

125 KVA Diesel Generator Set specification (minimum and tentative capacity subject to approval by Incharge)

All specifications under NTP conditions at 0.8 lagging Power factor Three phase 4 wire, 415 volts, 1500 RPM, 50 cycles liquid cooled, Electric start diesel generating set with CPCB Type II enclosure will consist of the following:

- Engine: 6 Cylinder Electrical, Liquid Cooled CPCB-II Emission Norms controlled Diesel Engine, 4 stroke, 50 cycles, 1500 rpm developing suitable BHP confirming to BS:5514 & suitable for continuous running fitted with electric generator, safety protection of LLOP & HWT 12/24 volts electric starting system along with other standard accessories
- Alternator: CG/LS/Stamford alternator, 125 KVA, Three phase, 0.8 lagging Power factor, 415 volts, Brushless type alternator self-excited, self-regulated and fitted with electronic voltage regulator (AVR) and screen protected drip proof with enclosure confirming to protection IP 23, Horizontal foot mounted 1500 rpm with voltage regulation +/-1%, Single bearing type suitable for operations up to 40 deg C ambient temperature and 1000 mtrs altitude, Temperature rise limit to class "H" Limits as per manufacturers standard scope of supply.

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- AMF panel as per standard OEM supply inside the Acoustic Enclosure.
- General Arrangement: The engine will be directly coupled to alternator in order to form a compact arrangement and both the units will be mounted on Anti Vibration mountings and fitted to suitable fabricated Base-Frame.
- Acoustic Enclosure: The aesthetically designed Acoustic enclosure is designed & approved by manufacturer and suitable to 125 KVA Diesel generator set. The said Acoustic Enclosure is also type approved by ARAI Pune as per Central Pollution Control Board (CPCB) Norms.
- Control Panel: Standard control panel suitable for 125 KVA Three phase Diesel generator set and fabricated out of 16-gauge M.S. sheets, Front hinged for indoor use, cubical type, dust and vermin proof with TPN aluminium bus bar chamber, complete with internal wiring, ferrules, name plates, painting etc. consists of following:
 - One Multi digital meter for AC voltmeter, AC ammeter & Frequency meter
 - Three nos. of current transformers of suitable rating,
 - One suitable capacity MCB with short circuit protection,
 - One set of HRC control Fuses/MCB
 - One set of pilot amps of 'SET RUNNING' & 'LOAD ON' indication
 - In addition to the above, control panel will also consist of Engine control panel instrumentsAccessories and other requirements:
 - Fuel sensing Tank Unit with Tank capacity suitable for 8 hrs. running of the Diesel Generator set.
 - Residential type exhaust silencer with exhaust bellow & piping up to silencer.
 - Operating Manual spare parts catalogue CD.
 - 1*12/24 volts or 2*12/24 volts Exide/Amaron make Xpress charges battery & connection leads.
- Literature for paratrigeminal and spare parts catalogue, installation and general maintenance guide, foundation drawing, alternator and control panel drawing and test certificates
- Any major or minor civil work including excavation for foundation, earth pits, platform etc. and for exhaust pipes will be provided by firm along with minimum 50-meter power and control cables, cable terminators, water piping and fuel piping etc. DG set shall be supplied with first fill of lube oil and batteries in charges condition. Supervision of erecting and commissioning shall be done free of cost. All safety equipment like rubber mats, safety boards, fire extinguishers should be provided with Diesel generator set.
- Installation of Diesel Generator Set should be including construction of foundation, caballing and earthing work.
- The Diesel Generator shall be supplied with First full fill of Fuel for testing and commencing.
- All the Electric/ Electronic ITEMS along with accessories must have 5 years comprehensive warranty including Battery, Machine parts, Software, Services and every critical part/Item, would be mandatory.

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List of items

S. No.	Items	QTY	UNIT
1.	Supply AHU <ul style="list-style-type: none"> ➤ Supply and installation of Double skin AHU complete with mixing box, Cooling coil, and fan, volume control dampers for Supply, fresh air, and fresh air filter etc. ➤ Fan Make & Type – Nicotra/Kruger make DIDW Backward Curve Centrifugal Fan ➤ Drive Arrangement – Taper Lock Pulleys for Fan & Motor Both ➤ Type of Balancing/Test Procedure – Statically & Dynamically/AMCA Tested 		
1.1	Supply AHU capacity:800 CFM@125 mm SP / 4 TR	4	No
1.2	Spare Motor	4	No
1.3	Supply AHU capacity:1500 CFM@125 mm SP / 8 TR	1	No
1.4	Spare Motor	1	No
1.5	Condensing Unit - 4 Tr	10	No
1.6	Expansion valve & drier etc	10	SET
1.7	Copper piping (10 RMT Considered / machine)	10	SET
2	Exhaust - Air Handling Unit		
2.1	Exhaust AHU Capacity: 1000 CFM@125 mm SP	4	No
2.2	Exhaust AHU Capacity: 2000 CFM@125 mm SP	1	No
2.3	BIBO Filter Setup 1000CFM	4	No
2.4	BIBO Filter Setup 2000CFM	1	No
2.5	Filter Setup 1000CFM	4	No
2.6	Filter Setup 2000CFM	1	No
3	Ducting		
3.1	24 G G.I Duct with angle support	450	Sq.mtr
3.2	3 mm Angle frame	1400	Kgs
4	Insulation: Insulation material with Nitrile foam/cross linked Polyethylene material outer and adhesive will be used		
4.1	19 mm thick for supply duct	250	Sq.mtr
4.2	13 mm thick for Return duct	200	Sq.mtr
4.3	6mm Thick	60	Sq.mtr
5	Supply & Return air grills		
5.1	Supply air grills & Return air Diffuser with Damper: MOC: CRCA powder Coated,	30	No.

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	1.2 mm thick with Perforation		
6	Dampers		
6.1	Galvanized steel Volume controlled damper, Opposed / parallel Blade Dampers are used to carry out a rough air system balance with closer control being carried out at the individual grilles or diffusers.	16	No.
6.2	Fire Damper	8	No.
7	Magnahelic Gauge	20	No
8	CEILING PANEL: Supplies of modular solid clean thick ceiling panel made up of 0.8 mm thick, both side PPGI Filled with PUF quality 40 kgm ³ density. Panel are of tongue and groove type arrangement. Thickness: -60 mm. Aluminum profiles for reinforcement along the periphery all accessories etc.,	250	Sq.mtr
9	WALL PANEL: Supplies of modular clean wall panel made up of 0.8mm thick both side PPGI Filled with PUF quality 40 kgm ³ density. Panel are of tongue and groove type arrangement. Thickness: - 50 mm. Aluminum profiles for reinforcement along the periphery all accessories etc.,	400	Sq.mtr
10	View Glass	10	No
11	COVING: Extruded aluminum powder coated clip on type R 52 covings for the entire wall to wall and wall to ceiling etc	550	RMT
12	3D Corners	140	No
13	Modular Clean Room Door Material: PPGI, Skin Thickness 0.8mm, Infill: PUF with flush double-glazing glass, hardware like door closure, D handles, ball bearing butt hinges and provision for concealed automatic door bottom seal		
13.1	Size (Single Door): 900 x 2100 mm -BIOSAFTY DOORS	10	No
13.2	Size: (Double Door) 1200 x 2100 mm- BIOSAFTY DOORS	1	No
13.3	Size: (Single Door) 1000 x 2100 mm-Metallic doors	7	No
14	Epoxy Flooring	250	Sq.mtr
15	Door Interlocking System	4	SET
16	Static Pass Box - SS 304 (600 x 600 mm)	4	No
17	Dynamic Pass Box - SS 304 (600 x 600 mm)	4	No
18	Bio Safety Cabinet: Class II Type A2 Size: 4' x 2' x 2' (W x D x H) MOC: CRCA Powder Coated (Make: ESCO/THERMO FICHER)	4	No
19	Horizontal Autoclave	1	No
20	Vertical Autoclave	1	No
21	Fire Detection & Alarm System: Fine Detection and Alarm System will be provided for the entire BSL-3 Laboratory Facility to detect any eventual case of fire in the building	1	SET
22	Emergency backup for critical instruments - 125 KVA DG	1	SET
23	Emergency shower and Eye Wash	3	Nos
24	Laboratory Chairs	6	Nos
25	Trolley SS 304, size 2'x1'6"	5	Nos
26	EPABX System (Intercom facility): Telephone instrument with speaker facility (6	1	SET

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	Telephone)		
27	CCTV Surveillance System with DVR and storage capacity with monitors and CCTV cameras (8 Nos)	1	SET
28	LAN wiring and connectivity with sockets to be provided at strategic locations throughout the BSL facility	1	SET
29	Garment Storage Cabinet: A garment storage cabinet that can be locked shall be provided in the Change rooms for each lab worker. The garment storage cabinets shall be in SS304 (Two way) (MOC: CRCA Powder Coated)	4	No
30	SS Grade Shoe racks	2	No
31	Water Shower (Closed shower)	1	No
32	Air Shower	1	No
33	Electricals: For the purpose of energizing the BSL Laboratory facility All the electrical fittings and fixtures in the laboratory's areas shall be suitable for clean room application and shall be sealed.	1	LOT
34	Lights and Electrical Switch/ Sockets	1	LOT
35	SS Bench, with cabinets and granite Top 2.5' Width and Ht 2.5'	50	RFT
36	AHU Control Panel	1	SET
37	Elbow operated tap with SS Sink unit	5	Nos
38	Fire Extinguishers – 2 Kg	4	No
39	Uninterrupted Power Supply system: For Interlocking system, Fire panel, CCTV etc (5 KVA)	1	No
40	Uninterrupted Power Supply system for Bio safety Cabinet (3 KVA)	4	No
41	Effluent Decontamination System (EDS) along with Effluent Collection Tank: 500 L (1 No) and Decontamination Process Tank: 500 L (2 No) and all required parts etc.	1	SET
42	Coat Hangers	10	Nos
43	HAND DRYER	5	Nos
44	Drain: All liquid drain coming out from the laboratory will be connected to a single drain with back flow prevention	1	LOT

Note: - THE QUANTITY MENTIONED HEREBY IS ESTIMATED AND IT SHOULD BE INCREASED AND DECREASED AS PER REQUIREMNT AND SUBJECT TO APPROVAL BY INCHARGE.

LIST OF APPROVED MAKES / MANUFACTURERS

ITEM	APPROVED MAKES /MANUFACTURER
MODULAR SWITCH & SOCKET/ INDUSTRIAL SOCKET/ FAN REGULATOR/ METAL BOXES, CALL BELL, RJ 11, STANDALONE RJ 45, TV OUTLET ETC.	NORTHWEST (ARTISA)/ ANCHOR PANASONIC (VISION)/ CRABTREE (MURANO)/ LEGRAND (ARTEOR) / SCHNEIDER (ZEN CELO)/C&S
MULTI-SENSOR DETECTORS, ADDRESSABLE & REPEATER FIRE ALARM CONTROL PANEL, GRAPHIC SOFTWARE, RESPONSE INDICATOR, SOUNDER CONTROL	EDWARDS/ NOTIFIER / BOSCH / SIMPLEX

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DUCT CASTING UNIT, ADDRESSABLE MANUAL CALL BOXES, INPUT / OUTPUT DEVICES, ADDRESSABLE FAULT ISOLATOR	
THERMOMETER, TEMP GAUGE, PR GAUGE, FLOW SWITCH, PRESSURE SWITCH, ACTUATORS, ROOM THERMOSTAT, HUMIDSTAT, WATER FLOW METER, HARDNESS ANALYZER, PH, CHLORINE, TDS, CO, CO2 SENSORS ETC.	HONEYWELL/ SCHNEIDER ELECTRIC/ SIEMENS / JOHNSON CONTROL / DANFOSS/ TRANE/ H-GURU
FIRE EXTINGUISHERS	SAFEX/ CEASEFIRE/ MINIMAX/ LIFEGUARD
STAINLESS STEEL SPRINKLER HEADS	TYCO / HD / NEWAGE BOMBAY/ EVERSAFE/ GETECH/ VIKING
INSTALLATION CONTROL VALVE/ DELUGE VALVE	HD FIRE/ NEWAGE/ TYCO/ VIKING/ SAFEX/ VICTAULIC/ ZOLOTO
AIR VESSEL	SAFEX/ NEWAGE / FIREX/ GETECH/ CEASEFIRE/ OMEX
ANTI-VIBRATION MOUNTING/ RUBBED PAD/DUCT SUPPORT ARRANGEMENT	DUNLOP/ RESISTOFLEX/ EWREN /GERB
AUTO AIR VENT	RAPID COOL / ANERGY / HONEYWELL / JOHNSON CONTROL/ AUDCO/ EMERALD
G.I. SHEET FOR DUCTING	TATA / SAIL / JINDAL/ VIZAG STEEL
GRILL / DIFFUSER/FIRE DAMPER	SYSTEM AIR /CARRYAIRE/ AIRMASTER/ TITUS/ AIR FLOW/ CONAIR/ DYNACRAFT
MOTORIZED FIRE DAMPER/ VOLUME CONTROL DAMPER	SYSTEM AIR /CARRYAIRE/ AIRMASTER/ TITUS/ AIR FLOW/ CONAIR/ DYNACRAFT
PRE-FILTER	ANFILCO / THERMODYNE / PUROLATOR /SPECTRUM
PUF PIPE SUPPORT	MALANPUR / LLOYD / BEST PUF
PREFABRICATED DUCT (WITH GI SHEETS OF MAKES SPECIFIED)	ZECO/ DUCTOFAB / ALPHADUCT/ TECHNOFAB/ NU AIR(NUTECH)
INSULATION I/C PUF, FIBER GLASS, ROCK WOOL, GLASS WOOL, PHENOLIC FOAM	UP TWIGA / LLOYD INSULATION/ OWENS CORNING/ KIMKO/ SUPREME
NITRILE RUBBER INSULATION	ARMACELL/ARMAFLEX/SUPREME FLEX/THERMAFLEX
PUBLIC ADDRESS COMPONENTS LIKE AMPLIFIERS, MICROPHONE	BOSCH/ EDWARDS/ NOTIFIER/ SIMPLEX

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AIR CIRCUIT BREAKER	ABB EMAX / SIEMENS -3 WL / SCHNEIDER ELECTRIC MASTERPACT NW/ LEGRAND DMX3/ C&S/ L&T
MCCB, MPCB	ABB (T-MAX) / SIEMENS (VL) / SCHNEIDER COMPACT NSX / LEGRAND (DX3) / C&S/ L&T D-Sine
EXHAUST FAN/CEILING FAN	AS PER SPECIFICATION MENTIONED IN TENDER
COMPLETE LIGHTNING ARRESTER SYSTEM	SCHNEIDER ELECTRIC/ OBO BETTERMAN/ L&T/ LEGRAND/ MK/ ABB/ ERICKO
SFU/FSU/CHANGE OVER SWITCH/HRC FUSE	SIEMENS/ LEGRAND/ HPL/ SOCOMEC/ ELECON / L&T/C&S
CONTACTORS/ SOFT STARTERS/ STARTERS/ MOTOR PROTECTION RELAYS/RELAY / TIMER / INDICATORS/ PUSH BUTTONS /CONTACTOR/ PANEL METERS/ OTHER ACCESSORIES	SIEMENS / SCHNEIDER ELECTRIC / ABB /LEGRAND/ L&T/C&S
LT PANELS AND CABLES	CPRI APPROVED MANUFACTURER AND POLYCAB/UNIVERSA;/HAVELLS/GLOSTER/KEI
Switch & sockets	CLIPSAL (Schneider) IP 66 rated for BSL-3 Lab Modular – Legrand/Schneider/Crabtree
PUMPS FOR FIREFIGHTING/ DRINKING & DRAINAGE/ STP/ HOT WATER CIRCULATING	MATHER&PLATT/ FRANKLIN/ KSB/ GRUNDFOS/ XYLEM/ ARMSTRONG/ KIRLOSKAR
VARIABLE FREQUENCY DRIVE	ALLEN BRADLEY/ DANFOSS / ABB/ SIEMENS/ HONEYWELL/ EMERSON
DIFFUSER	W2P TEK / VENZA/ REHAEU GERMANY
TELEPHONE CABLES	FINOLEX/ HAVELLS / Q FLEX/ POLYCAB
CLOSED CELL / OPEN CELL NITRILE RUBBER INSULATION	UP TWIGA/ OWENS CORNING/ K FLEX/ ARMACELL/ ARMAFLEX/ ARMACELL
CCTV CAMERAS, NVR	SONY / BOSCH / AXIS/ PELCO/ HONEYWELL/CP PLUS/LG
ACCESS CONTROL BIOMETRIC CUM ACCESS READER	BOSCH/ HONEYWELL/ HID/ SEIMENS/ MORPHO
MOTORS	ABB / CROMPTON / KEC / SIEMENS
TEMPERATURE SENSORS	HONEYWELL / TRANE / RADIX / SONTAY / SIEMENS/ ACI/ DWYER/ GREYSTONE/ BEPL
HUMIDITY SENSOR	HONEYWELL / TRANE / RADIX / SONTAY / SIEMENS

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PRESSURE SENSOR	HONEYWELL / TRANE / RADIX / SONTAY/ ACI DWYER/ KELE/ SEIMENS
DIFFERENTIAL PRESSURE SWITCH	HONEYWELL / TRANE / RADIX / SONTAY/ SEIMENS/ ACI/ DWYER/ GREYSTONE
AIR HANDLING UNITS	ZECO / EDGETECH / SYSTEMAIRE / FLAKTWOOD/ NUTECH/ YORK/ VTS/ HUMIDIN/ CASILICA/ I-CLEAN/ CITIZEN/ WAVES
PUMPS (HVAC)	ARMSTRONG / GRUNDFOSS / ITT-BELL & GOSSETT/ KSB
CENTRIFUGAL/AXIAL/VANE AXIAL/IN-LINE FANS FOR VENTILATION, SMOKE EXHAUST, PRESSURIZATION, BSL-3 LAB EXHAUST SYSTEM FANS	KRUGER / GREENHECK/ NICOTRA/ AIRFLOW/ COMEFR/ HUMIDIN (AMCA CERTIFIED FANS FOR PERFORMANCE AND NOISE)
M.S./ G.I./ SS PIPE	TATA/ JINDAL (HISSAR)/ SAIL/ VIZAG STEEL
GI SHEETS	SAIL / TATA / JINDAL/ VIZAG STEEL
SS SHEETS	SAIL / TATA / JINDAL/ VIZAG STEEL
VAV BOX	JOHNSON CONTROL/ HONEYWELL/ TRANE/ SEIMENS
FIRE SEALANT/ PASSIVE FIRE PROTECTION MATERIALS	HILTI / 3 M / PROMAT
ALUMINUM SHEET	BALCO / HINDALCO / NALCO
INSULATION MATS	ISI MARKED
FASTENERS	HILTI / FISCHER
STRAINER (FIRE FIGHTING)	EMERALD / GRANDPRIX / LEADER/HAMMER
INDICATING LAMPS	L & T / SIEMENS / GE / AE / IMP/ C&S
EMERGENCY LIGHTING SYSTEM AND COMPONENTS, FIXTURES	HOCHIKI/ COOPER/ TECKNOWARE/ ASM/ TM/ ABB/ LEGRAND
BIBO AND ITS FILTER MAKE	THERMADYNE/ MK PRECESSION/ AAF/ FREUDENBERG
HEPA FILTERS AND ITS HOUSING	THERMADYNE/ MK PRECESSION/ AAF/ FREUDENBERG
DOOR AND WALL COVINGS	NICOMAC/ ICLEAN/ MRC
REGULAR METALLIC DOOR	NICOMAC/ ICLEAN/ MRC
DOUBLE GLAZING WINDOWS / VISION PANELS	NICOMAC/ ICLEAN/ MRC
EFFLUENT DECONTAMINATION SYSTEM (EDS) SYSTEM	BIO SAFE ENGINEERING/ ABC ACTINI/ PRI BIO/ MEGHA ENGINEERS

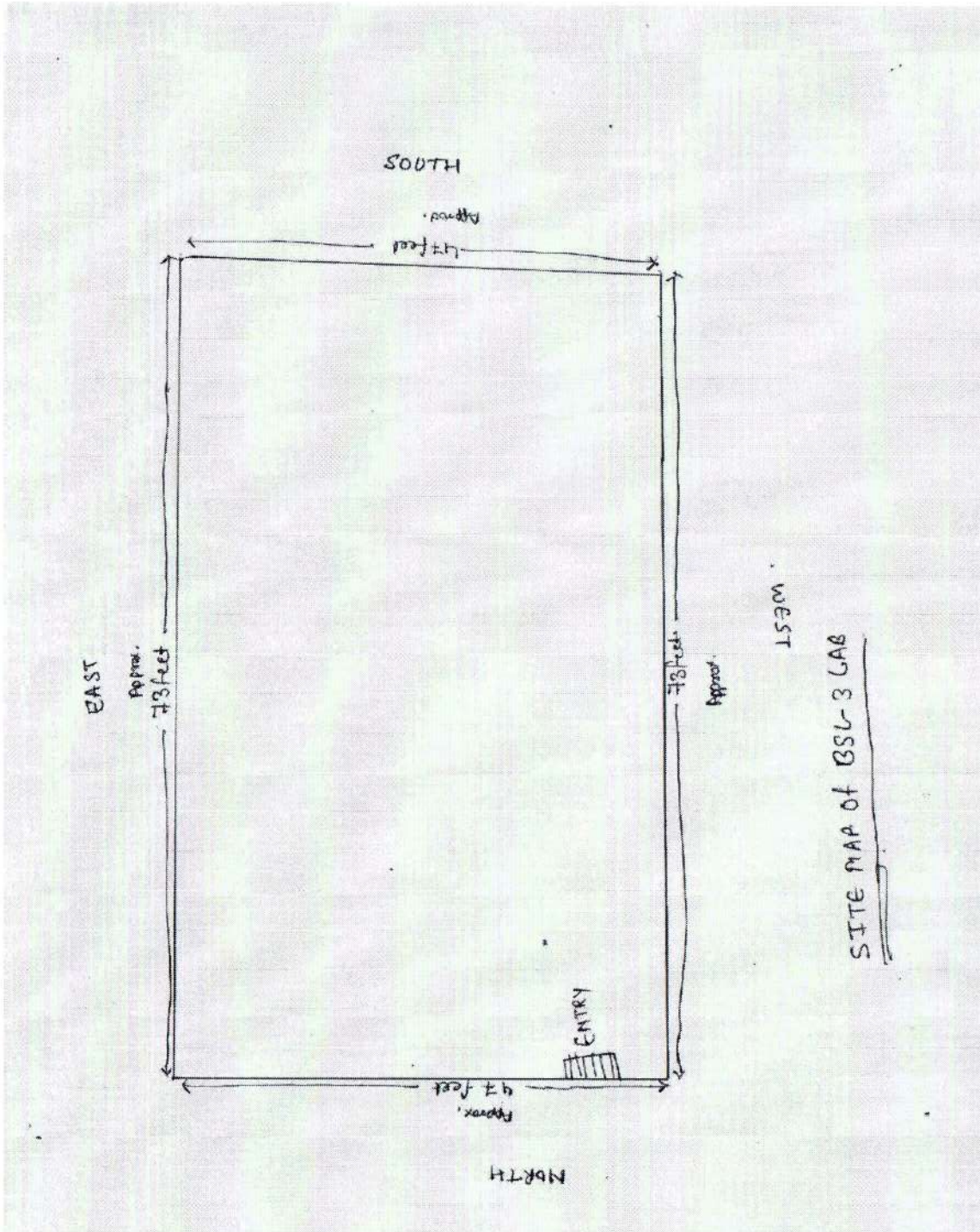
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WET SHOWER	KLENZAID/ I CLEAN/ HT AIRTEC/ NICOMAC/ K PASS
AUTOCLAVES	MACHIN FABTRICK/ PHARMALAB/ PERICLAVE
BIO SAFETY DOORS	KLENZAID/ I CLEAN/ HT AIRTEC/ NICOMAC/ K PASS
DYNAMIC PASS BOX/ DUNK TANK	KLENZAID/ I CLEAN/ HT AIRTEC/ NICOMAC/ K PASS/ESCO
Isolation Dampers	TROX/ALDES/CELMEC/TEK-AIR (ACCUROL)
BIOSAFETY CABINETS	ESCO/THERMO FISCHER
PVC Conduit and accessories	BEC/AKG/Polycab/Precision
Light Fixtures	LED (IP 55 rated) for BSL-3 Lab LED for other areas
Switch & sockets	CLIPSAL (Schneider) IP 66 rated for BSL-3 Lab Modular – Legrand/Schneider/Crabtree
<p>NOTE:</p> <ul style="list-style-type: none"> ✓ THE MENTIONING OF PARTICULAR MAKE UNDER PREFERRED MAKES DOES NOT FULFIL AUTOMATICALLY FOR ACCEPTANCE. THE MAKE SHALL COMPLY ALL THE PARTICULAR SPECIFICATIONS, ITEM OF WORK AND OTHER CONDITIONS OF THE CONTRACT. ✓ EITHER THE MODEL SHALL GET APPROVED OR SAMPLE SHALL BE SUBMITTED FOR APPROVAL BY ENGINEER-IN-CHARGE BEFORE CONFIRMING ANY ORDER TO SUPPLIER BY THE CONTRACTOR. ✓ PREFERRED MAKES MENTIONED ANYWHERE IN THE NIT SHALL BE READ ADDITION TO THIS LIST OF PREFERRED MAKE. ✓ FOR ANY ITEM NOT COVERED IN THE ABOVE LIST, THE CONTRACTOR SHALL SUBMIT THE MAKES AND SAMPLE FOR SEEKING APPROVAL FROM THE IN-CHARGE BEFORE SUPPLY THE MATERIAL. ✓ Any item not included above shall conform to the relevant BIS specifications, wherever applicable. 	

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Site Map of BSL-3 Lab



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FINANCIAL BID (B.O.Q)

Bidder must submit financial bid in .xls (Excel workbook 97-2003 workbook) only




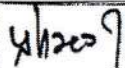



Signature of Bidder


The image shows four distinct handwritten signatures in blue ink, arranged horizontally. The signatures are stylized and appear to be initials or full names written in a cursive or shorthand style.

Declaration

This is to certified that all the members of purchase committee has checked and verified the tenders' documents (pp 1-82) and are in agreement that the tender is as per RTPP Rules 2013 and can Electronic submitted on E-Proc. Website <http://eproc.rajasthan.gov.in>.

Technical members of purchase committee are as follows: -

S. No	Name	Designation	Signature
1.	Prof. (Dr.) D.S. Meena	Principal Investigator	
2.	Dr. M. M. Mali	Co-Principal Investigators	
3.	Dr. Bincy Joseph	Co-Principal Investigators	
4.	Mr. Prem Kumar Khatri	Account Officer, Comptroller Nominee RAJUVAS, Bikaner	
5.	Director Works, RAJUVAS	Technical specialized person for specifically monitoring the construction and electricity related work of the laboratory	
6.	Dr. Basavaraj Mathapati	Scientist C (Virologist), National Institute of Virology, Pune Technical Expert	
7.	Mr. Mukesh Sogarwal	Retd. AAO-I, CDSRZ,PGIVER, Jaipur	


Prof. (Dr.) D. S. Meena
Principal Investigator
CDSRZ & BSL-3

Signature of Bidder

