

All Bidders

Amendment -IV

Subject: Construction, Testing, Commissioning, Validation and other associated works of Bio Safety Level-2 & 3 (BSL-2 & BSL-3) Laboratory on 'Turnkey Basis at Convergence Block, AIIMS, New Delhi.

IFB No. : HSCC/SES/BSL/AIIMS/2016 dated 29.04.2016

Dear Sir,

This has reference to above IFB No. for the Subject works.

The following Amendment may be noted which shall be treated as part of the contract to be submitted duly signed & stamp along with tender.

BIDDERS QUERY

Sr. No.	Bidder's Query	Clarification/Amendment
	M/s BIOSAFE LAB INDIA PVT LTD.	
1.	<p>- Payment terms mentioned in the SCC (clause 24 of SCC Page 74) as Only for items of major electrical Equipments:</p> <ul style="list-style-type: none"> a. 80% of BOQ rate on receipt of equipment against receipt of complete material at site & test certificates in accordance with clause 33(l) of SCC b. 10% of BOQ rate on erection and installation of equipment. c. 10% after successful completion of all works including all testing, commissioning & taking over. <p>The above BSL-2/BSI-3 work includes Electrical and major HVAC work, therefore, kindly amend the clause as: Payment term: for major Electrical/ HVAC work:</p> <ul style="list-style-type: none"> a. 80% of BOQ rate on receipt of equipment against receipt of complete material at site & test certificates in accordance with clause 33(l) of SCC b. 10% of BOQ rate on erection and installation of equipment. c. 10% after successful completion of all works including all testing, commissioning & taking over. 	Tender terms & condition prevails
	M/s BLUE STAR	
2.	1. Please allow Multi - Currency option for quotation. We wish to quote in USD as our foreign principals, Firs Bio, Shanghai would like to source equipments from countries	1.Tender terms & Conditions prevail.

	<p>outside India.</p> <p>2. Terms of Payment: Through Foreign L/C, preferably 100% against dispatch of material. We can submit PBG for 10% value of the PO.</p> <p>3. It will be prudent for you to specify capacity of Biological ETP as there is huge variations in prices of this item.</p> <p>4. AIIMS / HSCC should provide clear space for installation of HVAC equipment on roof top. Relocation and re-installation of your existing Solar Panels should not be our scope.</p> <p>5. As time allocated for bid submission is short. We therefore request you to kindly extend the date for bid submission by at least TWO WEEKS.</p>	<p>2.Tender terms & Conditions prevail.</p> <p>3.Bidders will set the capacity as the planning, design and construction are in their scope of works.</p> <p>4.Bidder should do the necessary cleaning works for installation of HVAC equipment and make the relocation works of existing set-up.</p> <p>5.Date of bid submission may be extended for two weeks.</p>
	<p>KLENZAIDS CONTAMINATION CONTROLS PVT. LTD.</p>	
	<p><u>Volume-01 : Prequalification Document</u></p>	
<p>3.</p>	<p>Clause 1.2, Brief Details :In the brief details of scope of work, it is stated that the scope also includes ‘its maintenance during the defect liability period’. Whereas in Volume -5 (BOQ Item) in Item No. 2 it is stated that Operation and Comprehensive Annual Maintenance Charges for four years, after DLP from the date of handing over/taking over.</p> <p>Please clarify and correctly specify whether the Operations and Maintenance Services charges to be</p> <p>quoted for First year till Fourth Year shall be applicable from the date of handing over/taking over or after the completion of DLP.</p> <p>Please also clarify whether the given estimated cost of work of Rs. 9.60 Crore is inclusive of estimated cost of four years Operation & Maintenance services also or not.</p>	<p>Four year Operation and CAMC will begin through a fresh agreement with AIIMS after completion of one year DLP</p> <p>As per BOQ Operation and Maintenance up tp one year Defect Liability Period is included in the estimated cost.</p> <p>The contractor should quote for 4 years Operation and CMC separately and these will be considered for ranking I the tender and post DLP agreement between AIIMS and contractor.</p>

4	<p>Clause 3.0 : Under this Clause, it is stated that 'Similar nature of work shall mean successful construction, testing, commissioning and validation of Bio-Safety Laboratory (BSL-3/BSL-4) works.</p> <p>Since the scope of work involves Design, Engineering and Detailing work and the same is a very important and critical aspect for successful completion of the subject work, it is therefore essential and imperative that the bidder's/firms shall have experience of Design, Engineering and Detailing of Bio-Safety Laboratory (BSL-3/BSL-4) works. It is therefore suggested that the description of Similar Work may be suitable amended to include Design, Engineering and Detailing aspect also.</p>	Tender terms & Conditions prevail
5.	<p>Clause 3.12 : Planning & Design Capability (Part of Presentation) : Under this Clause, the Architectural layout plans, men & materials movement layout plans, zoning plans, specialized systems and services layout schemes, services & utilities schemes, laboratory validation procedures and details, laboratory security protocols, project implementation methodology and construction materials details and equipment details along with makes/manufacturers proposed for construction of the laboratory has been asked under sub-clause 3.6 (i to ix).</p> <p>We understand that the above mentioned details and drawings are required to be presented by the qualified bidder called for Technical Presentation and need not be submitted along with the Technical Bid. Please Confirm.</p> <p>Also, since the above details shall include Intellectual and Proprietary information, we propose that a Confidentiality Agreement be signed to safeguard the interest of all the Parties, while these details and information are presented and shared with HSCC/AIIMS, committee.</p>	<p>Planning & Design Capability (Part of Presentation) will be submitted by the bidders who will meet the minimum prequalification criteria and will be intimated for submission of technical presentation.</p> <p>Tender terms & conditions prevail.</p>

<p>6.</p>	<p>Clause 3.16 : Award Criteria : It is stated that 'The Bidder scoring maximum overall marks, after adding the marks of Technical Evaluation and Financial Evaluation will be eligible for placement of order', which is contradictory to Clause No. 25.1 (Volume 03, Instructions to Bidders), wherein it is stated that 'Engineer will Award the Contract after prior approval by the Employer to the Bidder whose Bid has been determined to be eligible and to be substantially responsive to the Bid documents and who has offered the lowest evaluated Bid of the Bill of Quantities calculated considering the sum total of the rates quoted for PART-A and PART-B of Bill of quantities (Volume-V).</p> <p>Please Clarify and clearly specify the Correct Criteria for Award of Word.</p>	<p>Query is wrongly written.</p> <p>However clause 25.1 (Vol 03, Instruction to Bidders) states that subject to clause 26, engineer will award the contract after prior approval by the Employer to the Bidder whose Bid will be determined to be eligible and to be substantially responsive to the Bid documents and the bidder scoring maximum overall marks after adding the marks of technical evaluation and financial evaluation as per criteria mentioned will be eligible for placement of order. Bill of quantities calculated considering the sum total of the rates quoted for PART-A and PART –B of Bill of quantities (Volume-V), provided further that the Bidder has the capability and resources effectively to carry out the contract works.</p>
<p>7</p>	<p>Application Form No. 4, Annexure-II : Construction Material and Equipment proposed for construction of the Laboratory has been asked under subheads A-F.</p> <p>It is proposed that in order to allow Comparison and Evaluation of Bidders on <i>Equitable Terms</i> regarding the makes/manufacturers of construction materials, equipment, electrical fittings and fixtures, HVAC system, Building Management System and Biosafety Fixtures, list of Approved Makes/Manufacturers may be specified and provided by HSCC/AIIMS.</p>	<p>Tender terms & conditions prevail</p>

8	<p>Checklist, Annexure-VI : At point no. 17 'Manufacturers Authorization Form' is specified.</p> <p>Please clarify, the meaning and interpretation of 'Manufacturers Authorization Form'. Please clarify whether Bid submitted by Authorized Manufacturer of similar facilities will be accepted or not.</p>	<p>Manufacturers' authorization form is not specified in the tender document.</p>
	<p><u>Volume-02 : General Conditions of Contract</u></p>	
9	<p><u>Volume-02 : General Conditions of Contract</u></p> <p>Clause 60.7 : Advance Payment : This Clause has been deleted and there is no provision of giving Mobilization Advance to the selected party.</p> <p>It is requested that to ensure smooth cash flow and speedy execution of the works, an Advance Payment may be paid equivalent to 10% of the Contract Price against submission of Bank Guarantee, as is permitted by Government Departments. Please issue suitable amendment in this regard and include Mobilization Advance. Not giving Mobilization Advance will tend to unnecessarily increase in the price quote due to high project finance and interest cost.</p>	<p>Tender terms & conditions prevail</p>
10	<p><u>Volume-03 :Instruction to Bidder and Specific Conditions of Contract</u></p>	
	<p>Clause 1.0, Para 4 : It is stated that 'The scope of work shall also include Civil, Electrical works, HVAC works, external development works, finishing works, all PHE works & fire fighting works etc. and their maintenance during defect liability period including & preparation of all detailed shop drawings, obtaining approval from all local authorities, electrical inspector, water, sewer. Drainage, electricity connection from local bodies, permission/approval for tree cuttings etc. if any.</p>	<p>a) Scope of works of the contractor include plan and design for construction of lab.</p> <p>b) Electricity connection is available at the nearby LT panel of the building. The contractor shall make necessary connection.</p> <p>c) Same as b).</p>

	<p>We request the following to be provided and clarified:</p> <p>a) The Design requirements, Design criteria and Schematics for Civil, Electrical, HVAC, PHE & fire fighting works may be provided to understand the requirements for preparation of Bids and for preparation of detailed shop drawings.</p> <p>b) Since the work is to be executed in an existing building, which already has power supply connections. Please clarify what is expected to be done regarding ‘Electricity Connection from Local Bodies’ and the scope of work may be clearly specified. As such, there is no clarity and the requirement specified is completely ambiguous and not clear.</p> <p>c) Please provide the details of available power source, feeder panel etc. for the proposed BSL-2 & BSL-3 Laboratory.</p>	
11	<p>Clause 10.2&37.0 : We understand that Service Tax shall be applicable on the Project. Please confirm.</p> <p>Several Govt. Departments and Institutions are allowing only part payment of Service Tax to the Authorities by the Contractor/Service Provider and the balance applicable Service Tax is paid by Department / Institution directly to the Authorities.</p> <p>Please clarify whether the full applicable Service Tax should be included in the quoted price or only part Service Tax should be included.</p>	Tender terms & conditions Prevail.
12	<p>Clause 29.1 : It is stated that within 15 days of receipt of notification of Award, Performance Security Bank Guarantee for Part-A (Main work of Construction of BSL-3 Lab) and Part-B</p>	Performance Security for Part A to be submitted to HSCC for construction of main work of BSL 3 and one year operation and comprehensive maintenance during

	<p>(Comprehensive Operation & Maintenance for five years – Optional) shall be submitted. Also the performance security Bank Guarantee for all the five years has been asked.</p> <p>Since the work under Part-B shall be executed after completion of works under Part-A, it is requested to allow submission of the Performance Security Bank Guarantee for Part-B for each year progressively at the commencement of the yearly Operation & Maintenance Services. Suitable amendment may be issued in this regard.</p>	<p>one year Defect Liability period.</p> <p>Performance Security for Part-B to be submitted to AIIMS for past DLP operation & maintenance of BSL-3.</p>
13	<p>Clause 33.0 : Certificates and Payments</p> <p>The Terms of Payment during the Operation & Maintenance period is not specified. The same may please be clarified and specified.</p>	<p>Payment for Operation & maintenance will be made on quarterly basis after certification of works.</p>
14.	<p>Clause 39.2: Site Development: The provisions and requirements given under this clause are not applicable to the subject work. The subject BSL-2 & BSL-3 Laboratories are to be established in an already constructed building.</p> <p>It is therefore requested that this clause may be deleted.</p>	<p>Tender terms & conditions Prevail.</p>
15.	<p>Clause 39.2 b): Statutory Requirements</p> <p>Since the work is required to be executed inside an already constructed building. Please Clarify and Clearly specify the Statutory Approvals and Clearances required to be obtained by the Contractor, to avoid any ambiguity during project execution.</p>	<p>Tender terms & conditions Prevail.</p>
16.	<p>Clause 39.2.5:Under Site Office, it is specified that for maintenance of furnished Site office, telephone, vehicle/car etc., the Maximum expenditure for site office limits to Rs. 12.0 Lakhs.</p>	<p>Tender terms & conditions Prevail.</p>

	<p>It is proposed and requested that furnished Site Office, telephone, vehicle/car etc. should be arranged and maintained directly by AIIMS/HSCC and excluded from the Contractors Scope. Please also clarify that if these are to be provided and maintained by the Contractor and the expenditure under this head exceeds the specified limit of Rs. 12.0 Lakhs, will the extra expenditure be reimbursed and paid to the Contractor.</p>	
17.	<p>Clause 39.2.6: Temporary Fencing: Since the subject works are to be executed inside an existing building and only involves internal works, it is therefore requested that the provisions and requirements given under this clause, should be deleted, as the same is not applicable.</p>	Tender terms & conditions Prevail.
18.	<p>Clause 39.2.8 : Testing of Materials : The requirements given under this clause are not applicable to this work. Since the subject works are to be executed inside an existing and already constructed building and only involves internal works and there is no structural construction works involved, it is requested that the provisions and requirements given under this clause should be deleted.</p>	Tender terms & conditions Prevail.
19.	<p>Clause 41.0: Obtaining Completion Certificate : It is specified that the contractor is required to obtain all NOC, completion & occupancy certificates from respective local bodies.</p> <p>Since the subject works are to be executed inside an existing and already constructed building and only involves internal works and also the building is already occupied. Therefore the requirements given are not applicable and should be deleted.</p>	Tender terms & conditions Prevail.
20.	<p>Clause 46.1: It is stated that the contractor shall provide Comprehensive Operation and Maintenance Services for 1 year including trained manpower, accessories, tools, tackles, all spares and consumables (excluding only power and water).</p> <p>The requirements given under this clause is</p>	Tender terms & conditions Prevail.

	<p>completely ambiguous and not clear. Please elaborate provide list of the items to be included in spares and consumables to avoid any ambiguity and conflicts during providing these services.</p>	
21.	<p>Clause 47. : The Tender Document do not contain any list of approved makes.</p> <p>It is requested to kindly provide the list of Approved Makes. This will also enable the Bidders to quote for equivalent brands and similar quality of work.</p>	Tender terms & conditions Prevail.
22.	<p><u>Additional Specific Condition of Contract and Specifications</u></p> <p><u>A – GENERAL</u></p> <p>20. It has been specified at:</p> <p>Point No. 13. Waterless urinals, audio visual console for information system</p> <p>Point No. 18. Signages – special module- Alphabets and back lighting</p> <p>Point No. 23. Provision for new electrical load and water supply need</p> <p>The interpretation and requirements of the above may kindly be elaborated, specified and clarified.</p> <p>Several items and requirements related to external works have been specified. We understand that all these mentioned works are not required to be executed for the project. Please review the requirements given in this clause and clarify.</p>	Tender terms & conditions Prevail.
23.	<p><u>B – Relating to Civil, Plumbing & Fire Fighting Works</u></p> <p>Clause 19.2 : It is stated that ‘The contractor shall check at stages and supervise at the point of connection the associated civil, electrical and plumbing works underground and overhead tanks, power supply and installation of makeup water connection, drain connection in the fire fighting</p>	Tender terms & conditions Prevail.

	<p>tanks and vicinity of plant room etc.</p> <p>Please clarify whether the scope of work shall also include construction of underground and overhead water tanks. Please also clarify whether fire fighting water tank, fire hydrant, wet riser etc. works related to fire fighting system shall also be included in the scope of work.</p>	
24.	<p>Clause 24.2 : It is stated that ‘Contractor will be held responsible if any work at site is carried out without having approval of municipal or local bodies’.</p> <p>We understand that the no prior approval from municipal or local bodies is required, as the works are to be executed in an already constructed and occupied building. Please clarify and confirm the same.</p>	Tender terms & conditions Prevail.
25.	<p>Clause 24.5 : It is stated that ‘Before start ...ATT,.....signages works etc.’.</p> <p>Please Clarify whether water proofing, ATT and Signage Work are required to be executed and to be included in the Contractors scope or not.</p>	Tender terms & conditions Prevail.
26.	<p>Clause 26.0 :Solar water heating system are specified, which is not mentioned in the Scope of work.</p> <p>Please Clarify whether Solar water heating system shall also be included in the Contractors scope or not. It yes, please provide the technical specifications, approved makes and the capacity.</p>	Solar heating system deleted.
27.	<p><u>C – Relating to Electrical Installations</u></p> <p>Clause 3.1 : It is stated that ‘The rates.....and getting permanent electricity connection from concerned local body(s) etc.’</p> <p>We understand that AIIMS already has sanctioned and connected power supply available. It is requested to Clarify the</p>	Power supply is available at the building.

	<p>interpretation of this Clause and the clearly specify the work included in the Contractors Scope under this.</p>	
28.	<p>Clause 8.1 : It is stated 'The drawings indicate the extent and general arrangement of the fixtures, controlling switches, wiring system etc. and are essentially diagrammatic'.</p> <p>No such drawings are given in the Tender Documents. It is therefore requested to kindly provide the above mentioned drawings to understand the requirement, assessment and preparation of Bids.</p>	<p>Tender drawing layout has been shown at Vol.VI. Contractor should plan and design and submit the shop drawings etc. being in turnkey work.</p>
29.	<p>Clause 12.1 : It is stated that 'All materials and equipments shall be ISI marked and shall be of the approved make and design'.</p> <p>There is no Approved Make given in the Tender Documents. Please provide the list of approved makes.</p>	<p>Tender terms & conditions prevail.</p>
30.	<p>Clause 31.0 : It is stated that 'The contractor shall pay for and arrange for operation & running of entire electrical system, HVAC, filter housing including DG sets and other equipment for a minimum period of one month after satisfactory completion desired by Engineer. Cost of operation and running of entire system including required material e.g. fuel, consumables, tools & tackles, required manpower etc. shall be deemed to be included in the contract'.</p> <p>Since storage of diesel by the contractor may not be permitted in AIIMS premises, it is suggested that for One month of operation of the entire system, the required fuel, Diesel and power etc. may be provided by AIIMS.</p> <p><u>D – Relating to HVAC Works and Specialized Equipments & System/Services</u></p>	<p>Tender terms & conditions prevail.</p>
31.	<p>Clause 5.1 : It is stated that 'The contractor shall arrange for proof checking of the drawings from accredited and approved agency at no extra cost'.</p> <p>Please Clarify whether the drawings shall be</p>	<p>Deleted</p>

	<p>approved by the Engineer or the contractor shall have to arrange for proof checking of the drawings from accredited and approved agency. If proof checking is required, please provide the list of accredited and approved agencies .</p>	
32.	<p>Clause 22.0 Following Terms of Payment is given:</p> <ol style="list-style-type: none"> a. 50% of BOQ contract rates on receipt of equipments/items at site b. 40% of BOQ contract rates on erection and installation c. 5% after successful completion of running test and taking over d. 5% after successful final performance testing or completion of defect liability period <p>Since the HVAC Works, Specialized equipment, systems and services constitutes a substantial value of the total work, the above payment terms shall result in poor cash flow and liquidity on the project. It is requested that the above payment terms may be amended as given under Clause 24.0 of Section C (Electrical Installations), which is as under:</p> <ol style="list-style-type: none"> a. 80% of BOQ rate on receipt of equipment at site b. 10% of BOQ rate on erection and installation of equipment <p>10% after successful completion of testing, commissioning and taking over</p>	<p>Payment terms referred is not as per tender document.</p> <p>Tender terms & conditions prevail.</p>
	<p><u>Volume-IV : Technical Specification</u></p>	
33.	<p>Clause 2.1 Para 3 : It is mentioned that the contractor shall carry out planning for all such scientific laboratory instruments and equipments and provide the services and utilities like power, water, compressed air, drain etc. required for such equipments.</p> <p>We understand that the scientific equipment/s shall be as per the list given in the tender drawings. Please confirm. Please also clarify and confirm whether these scientific instruments are included in the contractor's scope or these will be supplied by AIIMS/HSCC.</p>	<p>It should be as per clause 2.1 Scope of works (Vol-IV, Technical specification)</p>

<p>34.</p>	<p>Clause 2.1 Para 5 : List of equipments and system to be supplied and installed is given.</p> <p>Diesel Generator Set is specified. Please provide the capacity of DG Set required and to be considered.</p> <p>ETP Plant is specified. Please clarify whether chemical dis-infection system or steam based cook tank system is to be considered and provided. Please provide detailed technical specifications, capacity, redundancy etc. of the ETP to be provided.</p>	<p>Plan and design is in the scope of works of the contractor.</p>
<p>35.</p>	<p>Clause 2.1 Para 4 : It is mentioned that the scope of work shall also include ‘Supply and laying of the required power supply cables from the existing electrical room (LT panel room) upto the proposed BSL-3 Lab for its power supply. Extension of existing LT panel by providing feeder panel with switchgears of required capacities to meet the power requirements of BSL-2 and BSL-3 Lab’.</p> <p>Please provide the location and details of electrical room and the LT Panel from where the power supply cable is to be laid. It is requested to provide the drawings of existing LT panel indicating the details of existing feeder and SLD. Please also inform about the status of availability of power sanction for the BSL-3 Lab, from the local electricity department.</p>	<p>Bidders are requested to visit the site to access the works to be done before submission of bid.</p> <p>Power is available from the existing panel.</p>
<p>36.</p>	<p>Clause 2.1 : Scope of Work , In section ‘Supply and installation of equipments and systems’</p> <p>Cold Room is specified. Please specify the size and provide technical specifications and approved makes of the Cold Room to be considered and provided.</p> <p>Clause 3.0 :</p> <p>a) Please provide the roof top/terrace layout indicating the proposed location of the chillers and exhaust units</p> <p>b) Please provide the Basement layout indicating the proposed location of the ETP/BLED plant</p> <p>c) Please provide the sectional details of the ninth floor where the BSL-2 & BSL-3</p>	<p>Proposed locations are indicated in clause 3.0 of Vol-IV, Technical Specification.</p> <p>For a), b), c) & d) Bidders should visit the site to access the works to be done before submission of bid.</p>

	<p>Laboratories are proposed, indicating various levels like floor to floor height, bottom of beam etc.</p> <p>d) Please provide the layout plan of the existing DG area indicating the proposed location of the new DG set for BSL-2 & BSL-3 Laboratory.</p>	
37.	<p>Clause 4.1 : Considerations to be followed in design are given.</p> <p>a) HPHR system for energy efficient system is specified. Kindly provide technical specifications and details of the requirement given.</p> <p>b) UVGI system at the exhaust line to achieve kill rate based on the specified micro-organisms. Generally UVGI system is not provided in the exhaust duct. The functioning, efficacy etc. cannot be checked. Please reconsider and review the requirement specified and delete.</p> <p>c) Standby supply and exhaust systems shall be provided for BSL-2 and BSL-3 Laboratories. Please elaborate and clarify on standby provisions specified for supply air side and for exhaust of BSL-2 Laboratory as these are not required as per BMBL guidelines. Kindly reconsider the requirement specified and delete the same.</p> <p>d) Energy recovery system in once through supply-exhaust system. The requirement specified is not technically suitable for BSL-3 Labs. Energy recovery is done from exhaust air only. Please clarify and issue suitable clarification and amendment.</p> <p>e) It is specified to provide UPS for Exhaust Blowers of BSL-2 and BSL-3. The exhaust blowers of BSL-2 and BSL-3 Laboratories are not required to be powered through UPS. Please review the requirement specified and omit the requirement given.</p> <p>f) It is mentioned that Biosafety doors shall be tested for leakage by pressure decay method. No pressure decay testing is required for BSL3 Laboratories and it is done only for BSL-4 Laboratories. Please review the requirement specified and issue suitable amendment.</p> <p>g) It is mentioned that FDA system and Fire Fighting Systems shall be provided as per</p>	<p>a) Deleted.</p> <p>b) Plan and design is in their scope of works of the contractor.</p> <p>c) Tender terms prevail.</p> <p>d) Deleted.</p> <p>e) Tender terms prevail.</p> <p>f) Deleted.</p> <p>g) Plan & design is in the scope of works of the contractor.</p> <p>h) Separate AHU for BSL-3 and BSL-2.</p>

	<p>guidelines/standards. The relevant guidelines/standards are not specified. Please note that in BSL-3 laboratories, generally portable fire extinguishers of CO2 or dry powder type are provided. Please review the requirement specified and clarify.</p> <p>h) It is mentioned that each Lab area shall be provided with dedicated AHU. Please elaborate the meaning and interpretation of this requirement. Does it mean separate AHU's for BSL-2 BSL-3 Labs? Please clarify and confirm.</p>	
38.	<p>Clause 5. : General Construction:</p> <p>a) Requirements specified under clause 5.1 and 5.2 are not relevant to the work. Please review the same and issue amendment.</p> <p>b) 5.4 : SS 304 panels not best suited for BSL-3 and also are not cost effective. Wall and ceiling panels should be in similar construction for integration. Please review the specifications given, clarify and issue suitable amendments.</p> <p>c) -250 Pa Pressure has been specified for wall and ceiling panels. BSL-3 labs do not operate under such high negative pressure. The specified pressure should not be more than -(80-100) Pa. Please review the specified requirement and issue suitable amendment.</p> <p>d) Antistatic PVC flooring is specified. These flooring are generally used in clean rooms for semiconductor/electronic facilities and are not suitable for BSL-2 or BSL-3 labs. Most suitable flooring in BSL-2 & BSL-3 Labs is the self-levelling epoxy flooring. Please review and issue suitable amendment.</p> <p>e) Providing soak pit, rain water piping is specified. We presume that these works are not required to be executed for the subject project. Please review the given requirement and confirm.</p>	<p>a) Tender Terms Prevail.</p> <p>b) PUF (40 ±2 Kg/Cum/Rockwool 146-150 Kg/m3) sandwiched double skinned (Each skin 0.8 mm thick) Powder coated GI Panel of 100-120 mm thick.</p> <p>c) Pressure should be -80 to 100Pa</p> <p>d) 3 mm thick Epoxy with screed and SLC for flooring and corner coving at the skirting up to 100 mm.</p> <p>e) Deleted.</p>

<p>39.</p>	<p>Clause 5.18 :</p> <ul style="list-style-type: none"> a) It is give that in the BSL-3 lab area -40 to -45Pa pressure shall be maintained compare to its surrounding. Please the meaning of this requirement. b) 100% Air Tight is specified. In BSL-3 Labs, doors are not required to be air tight. Please review the given requirement. c) It is given that Door material should be SS-304. Please specify, which doors should be in SS 304. d) It is specified that duct should be welded air tight of SS 304. BSL-3 Labs are not required to be provided with SS 304 ducting and these are neither technically required nor cost effective. Please review the given requirement.5 e) It is mentioned that all HEPA filters should have pre-filter of 0.3 micron in upstream side of supply and exhaust. Please note that HEPA filter itself is of 0.3 micron size rating. Providing additional 0.3 micron filter before exhaust HEPA filter is not required for BSL-2 and BSL-3 laboratories. Please review the requirement given. f) Air vent with filter is specified in drain lines. This will increase the bio-risk. Please review the requirement given. g) Effluent line specified is in SS. Please review the given requirement. h) ETP room in basement has been asked with shower. Please clarify about the treatment of effluent from the ETP room shower. i) It is specified that all engineering components should have redundancy/standby arrangement system, which is a complete vague and open ended. As per BMBL guidelines, redundancy/backup specified is only for the BSL-3 exhaust system. We therefore request you to kindly clearly specify the equipments and system, where redundancy/backup should be considered and provided, so that there is no ambiguity during execution. j) 24 ACPH is specified for BSL-3 Labs and 	<ul style="list-style-type: none"> a) -40 to -45 Pa pressure shall be maintained inside the BSL Lab compare to the attached Entry room and Exit-1 room. b) Tender terms & conditions prevail. c) PUF (40 ±2) Kg/Cum/Rockwool 146-150 Kg/m3 sandwiched double skinned (Each skin 0.6 mm thick) Powder coated GI Panel of 50 mm thick door frame shall be of 1.2 mm thick powder coated GI for lab. d) Ducting material for HVAC and Bio Safety Cabinet should be as per WHO/CDC/NIH guidelines. e) Pre and fine filter at AHU and HEPA in Ducts. f) Deleted g) Tender terms prevail. h) Tender terms prevail. i) Chiller (n+1) configuration AHU (1W +1S) Exhaust unit (1W+1S) j) As per WHO/CDC/NIH guidelines.
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	<p>12 ACPH for BSL-2 Labs, which is way beyond the recommendations of BMBL guidelines. Please review the requirement given and specify the requirement as per BMBL guidelines.</p>	
40.	<p>Clause 6.3 : Fine filter HEPA/ULPA 99.99% efficiency down to 0.3 micron size is specified, as per the guidelines. Please note that as per guidelines HEPA filters should have 0.3 micron particle size rating and efficiency of 99.97%. ULPA filters are not required for BSL-3 Labs. Please review the given requirement.</p> <p>It is specified that the riser grilles shall be with perforated sheet finish and VCD. Please note that return air risers are suitable for clean rooms and not for BSL-3 Laboratories, as this will leave air pockets in the rooms, which is not desirable for bio-containment facilities. Please review the given requirement.</p>	<p>ULPA filters deleted.</p> <p>Return air risers deleted.</p>
41.	<p>Clause 6.7 : UVGI system is specified to be provided inside the duct.</p> <p>The strength of UVGI light is not specified. The purpose and intent of providing UVGI light in duct is not understood as neither the air not the duct can get disinfected thru UVGI. Please clarify.</p>	<p>Tender terms & conditions prevail.</p> <p>Plan and design is in the scope of works of the contractor.</p>
42.	<p>Clause 6.8 : HPHR system is specified for heat recovery in supply and exhaust air stream.</p> <p>The specified heat recovery system may not be suitable for BSL-3 Lab, since as per the guidelines there has to be certain distance maintained between exhaust air discharge and supply air intake. Please review the requirement given and issue suitable amendment.</p>	<p>HPHR deleted</p>
43.	<p>Clause 7.0 : It is mentioned that all the required panels, cabling, switchgears and arrangements etc. for the purpose of energizing the BSL-3 Laboratory facility shall be carried out by the contractor.</p> <p>The requirement specified is completely</p>	<p>Tender terms & Conditions prevail.</p> <p>a) Power will be available from the existing LT panel of the building.</p> <p>b) Drawing of LT panel will be issued after placement of award.</p> <p>c) Not required.</p>

	<p>ambiguous and open ended. Please provide details and clarify the following:</p> <p>a) What is status of availability of power for the proposed BSL-2 and BSL-3 Facility.</p> <p>b) Please provide details and drawings of existing LT panel from where the power supply for the BSL-2 & BSL-3 Laboratory is to be provided.</p> <p>c) Please clarify and confirm whether the scope of work requires execution of any HT work or installation transformer etc.</p> <p>d) What is the status of electrical load sanction to meet the power requirement of proposed BSL-2 & BSL-3 Laboratory.</p> <p>e) Please clarify and confirm whether the work require establishment of any dedicated substation for the proposed BSL-2 and BSL-3 Laboratory.</p> <p>f) It is mentioned 'standby power through existing Diesel Power Generator Set'. Please provide details of existing DG Set.</p> <p>g) Please also confirm whether that existing LT panel has the spare capacity and rating to meet the power requirement of the BSL-2 & BSL-3 Laboratory.</p> <p>h) Please clarify and confirm that who will provide the switchgears, if additional feeder is to be provided in the existing LT panel.</p>	<p>d) Electrical load for proposed BSL-2 & BSL-3 is kept.</p> <p>e) Not required.</p> <p>f) Plan and design is in the scope of works of the contractor.</p> <p>g) LT panel has spare capacity and rating to meet the power requirement of BSL lab.</p> <p>h) In the scope of works of the contractor.</p>
44.	<p>Clause 11.0 : Uninterrupted Power Supply is specified for Exhaust Blowers of BSL-3 Laboratory.</p> <p>It may be noted that the exhaust Blowers of BSL-3 Lab are not required to be powered thru UPS. Kindly review the requirement specified and issue suitable amendment.</p>	Tender terms & conditions prevail.
45.	<p>Clause 14.1 : Kindly provide the GA Drawing and SLD of existing feeder line/panel from where the power is to be tapped for the proposed BSL-2 & BSL-2 Laboratory, to enable assessment of requirement for extension of existing feeder/busbar, as proposed.</p>	Drawing of LT panel will be issued after placement of award.
46.	<p>Clause 14.4 : At point no. xiii) the Biological Effluent Treatment plant is specified.</p> <p>Please Clarify the following:</p>	<p>a), b), c), d), e) & f)</p> <p>Plan and design is in the scope of works of the contractor.</p>

	<p>a) The Capacity of Biological Effluent Treatment plant</p> <p>b) The Standby Capacity, if any, to be considered</p> <p>c) Whether the steam supply to Biological Effluent Treatment plant shall be provided through the common Steam Boiler or a dedicated Steam Boiler for Biological Effluent Treatment plant shall be provided</p> <p>d) Please clearly specify whether any standby provision for Steam Boiler is required to be provided or not.</p> <p>e) Specify the <i>Safety Features</i> desired and to be provided in the Biological Effluent Treatment plant system</p> <p>f) Provide detailed technical specifications of the Biological Treatment Plant</p>	
47.	<p>Clause 16.0 d) : It is specified that the lab shall be constructed, tested for leakage by pressure decay method.</p> <p>It may be noted that pressure decay test is not required and recommended for BSL-3 Laboratories as per CDC/NIH BMBL Guidelines.</p> <p>Pressure decay test is done only for BSL-4 Facilities. Kindly review the requirement specified, as the same is not technically correct and applicable to BSL-3 Laboratories.</p>	<p>Clause 16d) and 18.6 a) Shoould be done as per CDC/NIH/BMBL guidelines.</p> <p>Clause 18.6 b)</p> <p>b) Deleted</p>
48	<p>In the Tender Drawing, List of Equipment to be installed in the BSL Lab is given.</p> <p>In the tabulated list of equipments, laboratory scientific equipments like Incubators, Freezers, Centrifuges, Microscopes, Sonicator, Bead Beater, Flow Cytometer, LN2 storage cylinders, Pipette aid etc. are also given.</p> <p>We understand that these laboratory scientific equipments and instruments shall be supplied and provided by the Client and shall not be included in the scope of contractors work. Kindly confirm.</p> <p>We request that the above queries may kindly be clarified and details and necessary amendments may kindly be</p>	<p>Equipment shall be as per clause 2.1 Scope of works of Vol.-IV, Technical Specification.</p>

	<p>issued at the earliest.</p> <p>It is also requested to kindly give at-least two weeks time for submission of Bid, from the date of issuing the clarifications and amendments.</p>	
	M/s Kartos International	
49.	<ol style="list-style-type: none"> 1) The entry exit protocol as per the CDC standard and the circulation of persons including the separate change rooms for male and female user scientist require more floor area and the available space is limited with consideration to the equipment to be supplied and equipment space to be planned as per the list given in the tender. 2) The Emergency exit required as per standards need passages for each lab. We have observed that such provision is not indicated in the schematic drawing. This also calls for additional floor space. 3) The roof of existing building is already occupied with cooling towers and Overhead water tanks. This will call for shifting of these and relocating at other space. The roof top of proposed lab must be available for installation of exhaust system BIBO and other utilities. 4) Location of cold room is required so as to add the power cable and control system for the cold room 5) Location of the ETP in the basement required to be given with the drawing and existing layout so that additional plant equipment can be designed. 6) D G set location and available space required in a drawing form for the estimation of the power and control cabling. 7) We request you to furnish the drawings in Auto cad form as the PDF form drawings are not readable. 8) Space for Electrical control panels and UPS room is not considered in the suggested layout. 9) The location of RO plant and water softening plant needs to be reviewed. 10) The vertical autoclaves Double door autoclaves Storage for autoclaved material and the Wash sink require more floor area than proposed in the suggested plan. 11) In view of the validation requirements of the proposed labs the space requirement needs to be increased by about 40 % beyond the allotted space as per suggested layout. If this is not possible then the equipment requirement will have to be reduced. 	<ol style="list-style-type: none"> 1) Plan and design is in the scope of the contractor. 2) Plan and design is in the scope of the contractor. 3) Tender terms prevail 4) Tender terms prevail 5) The bidder should visit the site before quoting 6) DG set to be installed at the existing DG area of the building. 7) Readable drawing will be uploaded with amendment 8) Plan and design is in the scope of the contractor. 9) They will be available from existing source of the building. 10) Tender terms prevail. 11) Tender terms prevail. 12) Tender terms prevail.

	12) The critical experiment work and the general work (low risk work) will have to be separated and the labs be designed with consideration to the risk assessment consideration.	
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All other terms and conditions will remain unchanged.

Chief General Manager,
HSCC (India) Ltd.
For and behalf of Director (AIIMS), NewDelhi