

**Amendment No. 2****Date: 08/09/2020****Sub: Amendment to the Tender Enquiry Document.****Ref: Tender Enquiry No.: HITES/PCD/DTL-HP/19-20 dated 24.01.2020.**

The following changes are being incorporated in the referred tender enquiry.

**For:**

Design, Engineering, Procurement and Construction (EPC), Installation, Testing, Commissioning and Validation of BSL-2 Laboratory complete in all respects on turnkey basis

**Read As:**

Design, Engineering and Construction/Modification of BSL-2 Laboratory complete in all respects on turnkey basis

**SECTION I**  
**NOTICE INVITING TENDERS (NIT)****FOR:****Tender\_ID- 2020\_HLL\_41162****READ AS****Tender\_ID- 2020\_HLL\_41162\_2****FOR:**Due to COVID-19 outbreak and nationwide lockdown imposed for 21 days, the due date 'i.e. closing date & time for submission of online bids, Closing date & time for submission of **tender processing fee and EMD in physical form\*** and Time and date of opening of online bids' of tender referred above is being extended till further notice.**READ AS**

<b>Name and Description of work</b>	<b>Estimated cost</b>	<b>Completion period of Work</b>	<b>Date of availability of bid document online</b>	<b>Last date to fill/ upload the bid through e-tendering</b>	<b>Date of opening of bids</b>	<b>Bid Security amount (Rs.)</b>
Design, Engineering, and Construction/Modification of BSL-2 Laboratory complete in all respects on turnkey basis	Civil, Electrical, HVAC, ETP, Furniture and associated work- Rs.8.92 Cr	6 Months	22.09.2020	22.09.2020 Upto 15:00 Hrs.	23.09.2020 at 15:00 Hrs.	₹17,84,000

## SECTION-I NOTICE INVITING e-TENDER (Detailed NIT)

**For:**

**TABLE – I**

No.	Description	Details
2	Name & Description of Work	Design, Engineering, Procurement and Construction (EPC), Installation, Testing, Commissioning and Validation of BSL-2 Laboratory complete in all respects on turnkey basis
3	Estimated cost (in Rs. in Crores)	Civil, Electrical, HVAC, ETP, Furniture and associated work- Rs.8.92 Cr Laboratory Equipment- Rs. 11.16 Cr
4	Completion period of work (Months)	6
5	Bid Security (EMD) amount (in Rs.)	₹ 40,16,000.00
9	Last date to fill/upload the e tender through e-Tendering.	20 <sup>th</sup> March, 2020 at 3 pm (IST)
10	Date & time for opening of Technical Bids	21 <sup>st</sup> March, 2020 at 3 pm (IST)

**Read As:**

No.	Description	Details
2	Name & Description of Work	Design, Engineering and Construction/Modification of BSL-2 Laboratory complete in all respects on turnkey basis
3	Estimated cost (in Rs. in Crores)	Civil, Electrical, HVAC, ETP, Furniture and associated work- Rs.8.92 Cr
4	Completion period of work (Months)	6
5	Bid Security (EMD) amount (in Rs.)	₹17,84,000.00
9	Last date to fill/upload the etender through e-Tendering.	22 <sup>nd</sup> September, 2020 at 3 pm (IST)
10	Date & time for opening of Technical Bids	23 <sup>rd</sup> September, 2020 at 3 pm (IST)
11	Date & time for submission of tender processing fee and EMD	23 <sup>rd</sup> September, 2020 at 2 pm (IST)

**For:**

### **Eligibility Criteria**

The bidders should meet the following minimum eligibility criteria:

(c) **Turnover:** The Bidder shall have an average annual turnover of minimum Rs. 6.00 Crore in the last 3 financial years (i.e. F/Y 2016-17, 2017-18 & 2018-19). Copy of Audited Balance Sheets for all the three financial years shall be submitted.

(e) **Solvency Certificate:** The Bidder shall have minimum solvency of Rs. 6.00 Crore.

Solvency Certificate from the Bidder's Banker shall be submitted. Banker's certificates should be on letter head of the Bank, addressed to tendering authority.

**Read As:**

**Eligibility Criteria**

The bidders should meet the following minimum eligibility criteria:

(c) **Turnover:** The Bidder shall have an average annual turnover of minimum Rs. 2.70 Crore in the last 3 financial years (i.e. F/Y 2016-17, 2017-18 & 2018-19). Copy of Audited Balance Sheets for all the three financial years shall be submitted.

(e) **Solvency Certificate:** The Bidder shall have minimum solvency of Rs. 2.70 Crore. Solvency Certificate from the Bidder's Banker shall be submitted. Banker's certificates should be on letter head of the Bank, addressed to tendering authority.

**For:**

**1.12. E-Tender Processing Fee and Earnest Money Deposit (EMD)**

i. **E-Tender Processing Fee:** Interested Bidder who wishes to participate in the bid has to make payment, specified in Table –I at 1.2 above, towards the e-tender Fee/Processing Fee in the form of Demand Draft / Pay order or Banker's Cheque of any Scheduled Bank drawn in favour of "HLL Infra Tech Services Limited" Payable at New Delhi and the relevant Demand Draft / Pay order or Banker's Cheque to be scanned and uploaded on the e-Tendering website before the due date and closing time of submission of bids as notified and original should be deposited in the office of The Vice President (ID), HLL Lifecare Limited, B-14A, Sector – 62, NOIDA (UP) - 201307 before the Date & time for submission of Bids. E-tender Fee / Processing Fee is non-refundable.

**Read As:**

**1.12. E-Tender Processing Fee and Earnest Money Deposit (EMD)**

i. **E-Tender Processing Fee:** Interested Bidder who wishes to participate in the bid has to make payment, specified in Table –I at 1.2 above, towards the e-tender Fee/Processing Fee in the form of Demand Draft / Pay order or Banker's Cheque of any Scheduled Bank drawn in favour of "HLL Infra Tech Services Limited" Payable at New Delhi and the relevant Demand Draft / Pay order or Banker's Cheque to be scanned and uploaded on the e-Tendering website before the due date and closing time of submission of bids as notified and original should be deposited in the office of The **COO(HITES)**, HLL Infra Tech Services Limited, B-14A, Sector – 62, NOIDA (UP) - 201307 before the Date & time for submission of Bids. **E-tender Fee / Processing Fee is non-refundable.**

**For:**

**2.5 Award of Contract**

i. **Award Criteria**

HITES will declare the Bidder ranked L1 as Successful Bidder considering the total bid comprising of Part-A & Part-B as mentioned in the NIT. HITES reserves the right to proceed and award the work for Part-A & Part-B together or Part-A & Part-B separately and issue Letter of Award (LOA) on these basis as per the procedure mentioned in the Bid Document and terms and conditions set out in this Bid document. In case, the HITES award the work under Part-A initially and Part-B separately at a subsequent date, then the Part-B of the contract shall be executed through a supplementary agreement with Client at appropriate stage.

**Read As:**

**2.5 Award of Contract**

i. **Award Criteria**

HITES will declare the Bidder ranked L1 as Successful Bidder considering the total bid as mentioned in the NIT. HITES reserves the right to proceed and award the work and issue Letter of Award (LOA) on this basis as per the procedure mentioned in the Bid Document and terms and conditions set out in this Bid document.

**For:**

**Appendix 'XV-A'**

**ESTABLISHING SITE LABORATORY AND TESTING OF MATERIALS**

Equipments for conducting necessary tests including mandatory tests (as per CPWD Specifications) shall be provided and installed at site in the well-furnished site laboratory by the Contractor at his own cost. The following laboratory equipment should be in general or as and when required be set up at site laboratory: -

<b>Sl. No.</b>	<b>Equipment</b>	<b>Numbers</b>
1.	100MT compression testing machine, electrical-cum-manually operated)	1
2.	Slump cone, steel plate, tamping rod, steel scale, scoop	10
3.	Vicat Apparatus with Desk pot	3
4.	Megger & earth resistance tester	3
5.	Pumps and pressure gauges for hydraulic testing of pressure Pipes	2
6.	Weighing scale platform type 100 Kg capacity	2
7.	Graduated glass measuring cylinder	As per requirement
8.	Sets of sieves of 450mm internal dia for coarse aggregate [100mm, 80mm, 40mm; 2mm; 12.5mm,10mm; 4.75mm complete with lid and pan]	3
9.	Sets of sieves of 20mm internal dia for fine aggregate[4.75mm; 2.36mm; 1.18mm; 600 microns; 300 microns & 150 micron, with lid and pan]	3
10.	Sieve Brushes and sieve shaker capable of 20mm and 300mm dia sieves, manually operated with timing switch assembly	5
11.	Cube moulds size 70mmx70mmx70mm	30
12.	Cube moulds size 150mmx150mmx150mm	12
13.	Ultrasonic Test Equipment (For concrete)	3
14.	Hot air oven temp. Range 50°C to 300°C- sensitivity 1 degree	3
15.	Electronic balance 600gx0.1g., 10kg and 50 kg	4
16.	Physical balance weight up to 5 kg	4
17.	Digital thermometer up to 150oc	4
18.	Air Content of concrete testing machine	3
19.	Measuring jars 100ml, 20ml, 500ml	5 Nos each size
20.	Gauging trowels 100mm & 20mm with woodenhandle	12
21.	Spatula 100mm & 20mm with long blade wooden handle	12
22.	Vernier calipers 12" & 6" size	6 each
23.	Digital PH meter least count 0.01mm	6 each
24.	Digital Micrometer least count. 0.01mm	6 each
25.	Digital paint thickness meter for steel 500 micronsRange	3
26.	GI tray 600x450x50mm, 450x300x40mm,300x250x40mm	3 Nos each
27.	Electric Motor mixer 0.25 cum capacity	4

28.	Rebound hammer test digital rebound hammer	4
29.	Screw gauge 0.1mm-10mm, least count 0.05	6
30.	Water testing kit	3
31.	Motorized sieve shaker	3
32.	Pruning Rods 2 Kg weight length 40 cm and ramming face 25 mm <sup>2</sup>	4
33.	Extra Bottom plates for 15 cm cube mould	30
34.	Standard Vibration Table for gauging the cubes	2
35.	Pocket concrete penetrometer 0 to 50kg/ sq.cm	2
36.	Concrete temperature measuring thermometer with Brass protection sheath 0- 100 degree centigrade	4
37.	Mortar Cube vibrator	2
38.	Dial type spring balance preferable with zero correction knob capacity 100 kgs. reading to ½ kg.	2
39.	Counter scale capacity 1 kg and 10 kg	2
40.	Iron Weight of 5 kg, 2 kg, 1 kg, 500 gm, 20 gm, 100 gm	2each
41.	Brass Weight of 50 gm, 2 gm, 10 gm, 5 gm, 2 gm, 1 gm	2each
42.	Measuring cylinder TPX or Poly propylene capacity 100 ml, 500 ml, 250 ml, 100 ml	2each
43.	Pyrex, corning or Borosil beakers with cover capacity 500 ml, 20 ml, 50 ml	3 each
44.	Wash Bottles capacity 500 ml	12
45.	Thermometers 1-100 degree centigrade / max. and Min/ Dry and wet with table	6
46.	Set of box spanner ratchet	3
47.	Hammer 1lb& 2lb	3 each
48.	Distance metre (of 100 metre)	2
49.	Hacksaw with 6 blades	3
50.	Measuring tape (5 metre)	4
51.	Depth gauge 2 cm	6
52.	Shovels& Spade	6
53.	Steel plates 5 mm thick 75x75 cm	6
54.	Plastic or G.I. Buckets 15 ltr, 10 ltr, 5 ltr	3each
55.	Wheel Barrow	12
56.	Floor Brushes, hair dusters, scrappers, wire brush, paint brushes, shutter steel plat oil, kerosene with stove etc.	12each
57.	Any other equipment for site tests as outlined in BIS and other relevant codes/specifications and as directed by the Engineer-in-charge.	-

**Read As:****Appendix 'XV-A'****Deleted.**

However all materials shall be tested from any certified lab as per the direction of Engineer in charge.

**For:****SECTION -6****PROFORMA OF SCHEDULES****(Operative Schedules)**

<b>SCHEDULE 'E'</b>		
	Name of work : :	Design, Engineering, Procurement and Construction (EPC), Installation, Testing, Commissioning and Validation of BSL-2 Laboratory complete in all respects on turnkey basisat Baddi for DIRECTORATE HEALTH SAFETY & REGULATION (DHSR), GOVT.OF HIMACHAL PRADESH
	Estimated cost of work:	<b>Design, Engineering, Procurement and Construction (EPC):Rs. 20.08 Crs</b>
	Earnest money:	<b>Rs. 40.16 Lakh</b>

**Read As:****SECTION -6****PROFORMA OF SCHEDULES****(Operative Schedules)**

<b>SCHEDULE 'E'</b>		
	Name of work : :	Design, Engineering and Construction/Modification of BSL-2 Laboratory complete in all respects on turnkey basisat Baddi for DIRECTORATE HEALTH SAFETY & REGULATION (DHSR), GOVT.OF HIMACHAL PRADESH
	Estimated cost of work:	<b>Design, Engineering and Construction//Modification:Rs. 8.92 Crs</b>
	Earnest money:	<b>Rs. 17.84 Lakh</b>

**SPECIFIC CONDITIONS OF CONTRACT****2. Contract Price and Payments****For:****a) On Completion of work as per Vol.IV DBR:**

2.3. 80 % payment of the contract price shall be made on completion of respective phase of work i.e civil work, Services, ETP, HVAC, Equipment and Furniture on submission of Provisional Completion Certificate by the HITES's Engineer/client.

**Read As:****a) On Completion of work as per Vol.IV DBR:**

2.3. 80 % payment of the contract price shall be made on completion of respective phase of work i.e civil work, Services, ETP, HVAC and Furniture on submission of Provisional Completion Certificate by the HITES's Engineer/client.

**DESIGN BASIS REPORT****INDEX****DESIGN BASIS REPORT FOR CIVIL WORKS****For:**

Sl. No.	TITLE	Page No.
E.	Portable Reverse Osmosis System	44

**Read As:**

Sl. No.	TITLE	Page No.
E.	Portable Reverse Osmosis System	Deleted

**For:****E. Design Basis Report - Reverse Osmosis System****1. General**

The EPC Contractor shall provide portable RO system per floor as per functional requirements. Capacity of Portable RO shall be worked out by EPC Contractor and provided to Engineer-In-Charge for approval. The Output of RO Water system shall comply with the minimum requirement specified as per BIS 10500 for Drinking Water.

EPC Contractor is advised to visit site in his own interest to get acquainted with site conditions & interact with Client officials, if needed, for assessing the quantum of work involved under this EPC Contract.

Portable RO water unit shall be with water Cooler shall be of S.S construction of 80 Lit. (Approx.) Storage capacity & water flow rate 50 LPH through faucets including RO membranes, pumps, motors, cartridge filters, interconnecting pipes, valves, cables etc. or as per OEM standards meeting each building's drinking water requirement & as per directions of E-I.C. The R.O. Units shall be placed at different locations with minimum two Units on each floor or as per requirement. It should be complete with all interconnecting piping, valves, cartridge filters, diaphragm type pumps, RO membranes, cable, drain pipe & other related accessories. It shall be with UV unit. The system shall be suitable for a supply of 240 V AC / 50 Hz.

RO capacity (portable) mentioned above indicative only. During detailed designing, if required and found necessary, the capacity / rating of the equipment may be upgraded/ revised subject to concurrence of Engineer-In-Charge.

## 2. Design Basis (RO Plant)

Expected Treated Water Characteristics after RO (Reverse Osmosis Plant )	
Parameters	Characteristics
PH	6.0 – 7.0
Total Dissolved Solids	<50 ppm
Suspended solids	Nil
Turbidity	Nil
Iron as Fe	Nil
Total Hardness	Less than 5 ppm

The Output of RO Water should comply with the BIS 10,500 for Drinking Water.

### Read As:

**DELETED**

### TECHNICAL SPECIFICATIONS

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### FOR:

#### D. INSIDE DESIGN CONDITIONS

Sr.No	Space Name / Pressure type	Temperature in °C	RH %
1.	Sample collection Treatment Rooms (☐)	23☐1.1	50☐10 %
2.	X-ray/MRI/CAT Scan (-)	23☐1.1	50☐10 %
3.	Labs (-)	23☐1.1	50☐10 %
4.	Pre/Post IPD (+)	23☐1.1	50☐10 %
5.	Intensive Care Unit (+)	22☐1.1	50☐5%
6.	Operation Theatres (+)	21☐1.0	50☐5%
7.	Doctors Rest Rooms (☐)	23☐1.1	50☐10 %
8.	Isolation rooms (-)	23☐1.1	50☐10 %
9.	Patient Room (☐)	23☐1.1	50☐10 %

### Read As:

#### D. INSIDE DESIGN CONDITIONS

Sr.No	Space Name / Pressure type	Temperature in °C	RH %
1.	Labs (-)	23±2.0	50, ±5 %



**FOR:**

**CHAPTER- 14  
TECHNICAL SPECIFICATIONS- RO PLANT**

**a. GENERAL REQUIREMENTS**

**a. SCOPE OF WORK**

Work shall consist of furnishing all labour, materials, equipment and appliances necessary and required. The Contractor is required to completely furnish all the plumbing and other specialized services as described hereinafter and as specified in the schedule of quantities and/or shown on the plumbing drawings for RO Plant

**b. SPECIFICATIONS**

- Work under this Contract shall be carried out strictly in accordance with specifications attached with the tender.
- Items not covered under these specifications or due to any ambiguity or misprints, or additional works, the work shall be carried out as per specifications of the latest Central Public Works Department with up to date amendments as applicable in the Contract.
- Works not covered under Paragraphs above shall be carried out as per relevant Codes & Bureau of Indian Standards and in case of its absence as per British Standard Code of Practice.

**c. EXECUTION OF WORK**

- The Contractor should visit and examine the site of work and satisfy himself as to the nature of the existing roads and other means of communication and other details pertaining to the work and local conditions and facilities for obtaining his own information on all matters affecting the execution of work.
- The work shall be carried out in conformity with the Plumbing drawings and within the requirements of architectural and coordinated with all services drawings.
- The Contractor shall cooperate with all trades and agencies working on the site. He shall make provision for hangers, sleeves, structural openings and other requirements well in advance to prevent hold up of progress of the construction schedule. All supports to the civil structure shall be provided with dash fasteners.
- On award of the work, Contractor shall submit a schedule of construction in the form of a PERT chart or BAR chart for approval of the Engineer-In-Charge/ CLIENT. All dates and time schedule agreed upon shall be strictly adhered to within the stipulated time of completion/ commissioning along with the specified phasing, if any.

**d. DRAWINGS**

- Tender drawings/Schematic of RO system is provided to the Contractor. On the basis of these, shop drawings will be prepared & submitted to Engineer-in-charge/CLIENT for approval. The execution of work shall be done in-line with the approved shop drawings.
- Architectural drawings shall take precedence over plumbing or other services drawings as to all dimensions.
- Contractor shall verify all dimensions at site and bring to the notice of the Engineer-In-Charge all discrepancies or deviations noticed. Decision of the Engineer-In-Charge shall be final.
- Large size details and manufacturers dimensions for materials to be incorporated shall take precedence over small scale drawings.

- Any drawings issued by the Engineer-in-charge/CLIENT for the work are the property of the Engineer-in-charge/ CLIENT and shall not be lent, reproduced or used on any works other than intended without the written permission of the Engineer-in-charge/CLIENT.

**e. REFERENCE DRAWINGS**

- The Contractor shall maintain one set of all drawings issued to him as reference drawings. These shall not be used on site. All important drawings shall be mounted on boards and placed in racks indexed. No drawings shall be rolled.
- All corrections, deviations and changes made on the site shall be shown on these reference drawings for final incorporation in the completion drawings to be submitted by the contractor in fulfilment of the conditions of this contract.
- On award of the work the contractor shall be issued, one set of CLIENT's working drawings stamped "tender drawings" by the Engineer-In-Charge. The CLIENT's drawings shall be the basis of contractor's shop drawings. Upon submission of shop drawings to CLIENT, Final approved drawings will be stamped as "Good for Construction" drawings, based on which execution work will be done.
- Shop drawings are detailed working drawings which incorporate the contractor's details for execution of the work and incorporate equipment manufacturer's details and dimensions to ensure that the same can be installed in the space provided.
- All shop drawings should detailed pipe routing and levels, showing location of other services at crossings etc., cable runs, route cable trays and all allied works and must be fully coordinated with other services and approved by the Engineer-In-Charge before execution of the works. Engineer-In-Charge shall arrange to issue one copy/print of services drawings (if required for coordination of services) from the respective contracting agencies. Additional copies/ prints may be provided on payment of actual cost of the copies/ prints. All drawings will valid only when stamped and issued by the Engineer-In-Charge.
- Shop drawings shall be furnished for detailed layout of all equipment, foundation, bolting and vibration elimination details along with information on dead and dynamic load, vibration etc.
- Two sets of manufacturer's equipment drawings, roughing in and wiring diagrams shall be submitted.
- Contractor shall submit shop drawings furnishing all details of MCC panels, cable routes, wiring diagrams and connection details as required.
- Two copies of each set of shop drawings shall be submitted for initial scrutiny, discussion and approval.
- Each submission shall be accompanied by contractor's certificate stating that the shop drawings meet all the contract requirements and that the piping and equipment can be satisfactorily installed without any obstructions in the space available.
- On approval of the above the contractor shall furnish three sets of the approved shop drawings for execution of the work.

**f. INSPECTION AND TESTING OF MATERIALS**

- Contractor shall be required, if requested, to produce manufacturers test certificate for the particular batch of materials supplied to him. The tests carried out shall be as per the relevant Bureau of Indian Standards.
- For examination and testing of materials and works at the site Contractor shall provide all testing and gauging equipment necessary but not limited to the following:
  - a. Steel tapes

- b. Weighing machine
- c. Plumb bobs, spirit levels, hammer
- d. Micrometers
- e. Hydraulic machine
- All such equipment shall be tested for calibration at any approved laboratory, if required by the Engineer-In-Charge. All testing equipment shall be preferably located in special room meant for the purpose.
- Samples of all materials shall be got approved before placing order and the approved samples shall be deposited with the Engineer-In-Charge.

**g. METRIC CONVERSION**

- All dimensions and sizes of materials and equipment given in the tender document are commercial metric sizes.
- Any weights, or sizes given in the tender having changed due to metric conversion, the nearest equivalent sizes accepted by Indian Standards shall be acceptable without any additional cost.

**h. COMPLETION DRAWINGS**

- On completion of work, Contractor shall submit one complete set of original tracings and six prints of "as built" drawings. These drawings shall have the following information.
  - 1) Run of all piping, diameters on all floors, vertical stacks and location of external services.
  - 2) Ground and invert levels of all drainage pipes together with location of all manholes and connections up to outfall.
  - 3) Run of all water supply lines with diameters, locations of control valves, access panels.
  - 4) Layout showing location of all mechanical equipment and piping connections.
  - 5) All shop drawings shall be updated from time to time for the purpose of making completion drawings.
  - 6) No completion certificate shall be issued unless the above drawings are submitted.
  - 7) Contractor shall provide four sets of catalogues, service/operation & maintenance manuals, manufacturer's drawings, performance data and list of spare parts together with the name and address of the manufacturer for all electrical and mechanical equipment provided by him.
  - 8) All "warranty cards" given by the manufacturers shall be handed over to the Engineer-In-Charge wherever applicable.

**i. TESTING**

- Piping and drainage works shall be tested as specified under the relevant clauses of the specifications.
- Tests shall be performed in presence of the Engineer-In-Charge and test records for the tests shall be duly signed by Contractor and the Engineer-In-Charge.
- All materials and equipment found defective shall be replaced and whole work tested to meet the requirements of the specifications.
- Contractor shall perform all such tests as may be necessary and required by the local authorities to meet municipal or other bye-laws in force.
- Contractor shall provide all labour, equipment and materials for the performance of the tests.

**j. SITE CLEARANCE AND CLEANUP**

- The Contractor shall, from time to time, clear away all debris and excess materials accumulated at the site.

- After the fixtures, equipment and appliances have been installed and commissioned, Contractor shall clean-up the same and remove all plaster, paints, stains, stickers and other foreign matter or discolouration leaving the same in a ready to use condition.
- On completion of all works, Contractor shall demolish all stores, remove all surplus materials and leave the site in a broom clean condition, failing which the same shall be done by the Engineer-In-Charge at the Contractor's risk and cost. Cost of the cleanup shall be deducted from the contractor's bills on pro-rata basis in proportion to his contract value.

**k. LICENCE PERMITS AND AUTHORITIES**

- Contractor must hold a valid plumbing or any other as required license by the municipal authority or other competent authority under whose jurisdiction the work falls.
- Contractor must keep constant liaison with the local development, municipal /statutory authority and obtain approval of all drainage, water supply, fire suppression and other works carried out by him.
- Contractor shall obtain, from the municipal and other authorities 'C' & 'D' & other forms as required for approval of drainage and water supply works during execution and the completion certificate with respect to his work as required for occupation of the building. Contractor shall obtain permanent water supply and drainage connections from authorities concerned. CLIENT shall reimburse the fees paid to the authorities towards the connection charges on production of receipts for money paid.
- Contractor shall get any materials tested from the appropriate authority if so required with no cost to the CLIENT.

**l. CUTTING OF WATER PROOFING MEMBRANE:**

- No walls terraces shall be cut for making and opening after water proofing has been done without written approval of Engineer-In-Charge. Cutting of water proofing membrane shall be done very carefully so as other portion of water proofing is not damaged. On completion of work at such place the water proofing membrane shall be made good and ensured that the opening/cutting is made fully water proof as per specifications and details of water proofing approved by Engineer-In-Charges.

**m. MATERIALS**

- Unless otherwise specified and expressly approved in writing by the Engineer-In-Charge, only materials of makes and specification as mentioned in the list of approved makes attached with the specifications shall be used.
- If required, the Contractor shall submit samples of materials proposed to be used in the works. Approved samples shall be kept in the office of the Engineer-In-Charge.

**n. DESIGN BASIS:-**

- The RO Capacity shall be as per BOQ provisions.

**o. TREATED WATER QUALITY**

**Physical Quality:**

- A Normally the RO water turbidity shall be less than 1 NTU.
- B The colour of the filtered water shall be restricted to 2 Hazen units on platinum cobalt
- C There shall be nothing objectionable as regards taste and odor.

**Chemical Quantity:**

- A The pH value of filtered water shall be within 6.5 – 7.0
- B Other chemical quality parameters such as total dissolved solids should be less than 50 ppm

**Biological Quality:**

- A Throughout the year, 100% of samples shall not contain any coliform organism in 100 ml.
- B Coliform organisms shall not be detectable in 100 ml of any two consecutive samples. No sample shall contain E – Coli in 100 ml.

<b>Expected Treated Water Characteristics after RO (Reverse Osmosis Plant )</b>		
<b>Sl. No.</b>	<b>Parameters</b>	<b>Characteristics</b>
1	PH	6.0 – 6.5
2	Total Dissolved Solids	50 ppm
3	Suspended solids	Nil
4	Turbidity	Nil
5	Iron as Fe	Nil
6	Total Hardness	Less than 5 ppm

- The Output of RO Water should comply with the BIS 10500 for Drinking Water.
- The RO membranes are embedded within the pressure vessel. One side of the membrane is enclosed within the brine seal to avoid the mixing of filtered water and inlet water. Each membrane is connected to the other by means of interconnect or, and has a common permeate end. The filtered water is collected from the permeate end is sent to drinking and cafeteria usage.

**p. COMPONENTS & SPECIFICATION OF CENTRALIZED RO PLANT ARE MENTIONED HEREUNDER:-**

- **RO High Pressure Feed Pumps (HPP)** of Vertical multistage centrifugal type and suitable head to generate permeate flow as per BOQ. The pump casing construction shall be of SS-316 & impeller shall be also SS 316. The motor shall be TEFC with IE-3 efficiency suitable for a supply of 415V / 3 Phase at 50 Hz. Supply. The pump shall be supplied complete with base channel, coupling foundation bolts, pressure gauge, valves at inlet and outlet of each pump. (1 working + 1 Standby). RO high pressure pump is water feeding from treated water tank to RO module at high pressure flow.
- **RO Raw Water Pumps (RWP)** of Vertical multistage centrifugal type and suitable head to generate permeate flow as per BOQ. The pump casing construction shall be of SS-316 & impeller shall be also SS 316. The motor shall be TEFC with IE -3 efficiency suitable for a supply of 415 V / 3 Phase / 50 Hz. Supply. The pump shall be supplied complete with base channel, coupling foundation bolts, pressure gauge, valves at inlet and outlet of each pump. (Contractor to confirm duty for suitability). (1 working + 1 Standby).
- **Package type RO** module capable of giving a net treated water output as per BOQ. The Reverse osmosis module shall be made out of Sprial Wound Thin Film Composite suitable BSPT/NPT connections shall be used for connecting feed and reject ends. The

modules shall be supplied complete with all necessary instrumentation, valves for sampling, drain, reject and permeate.

- **Special Antiscalant dosing system** consisting of one **HDPE tank** of capacity as per BOQ with a positive displacement diaphragm dosing pump having variable flow rate as per BOQ. The motor shall be suitable for operation at 240 V / single phase / 50 Hz supply. The pump shall be supplied complete with necessary polypropylene piping, valves, strainers and injection fittings.
- **Micron cartridge filter** (shall be made of FDA compliant high quality poly propylene material) suitable for a flow rate as per BOQ to achieve particle filtration of less than 5 microns. The unit shall be supplied complete with inlet and outlet branches, removal caps for replacement of elements, inlet and outlet pressure indicator, valves etc. complete in all respect.
- **CIP system (Cleaning in Place)** consisting of HDPE tank with agitator complete with inlet/outlet, drain overflow etc. along with SS pump of capacity as per BOQ and cartridge filter of 10 micron. The cartridge filter shall be made of FDA compliant high quality poly propylene material to achieve particle filtration of less than 10 microns.
- **PH correction dosing system** consisting of one HDPE tank with a positive displacement diaphragm dosing pump having variable flow rate as per BOQ. The motor shall be suitable for operation at 240 V / single phase / 50 Hz supply. The pump shall be supplied complete with necessary polypropylene piping, valves, strainers and injection fittings.
- **Centralized control panel** made out of CRCA sheet min. 2mm thick having main contactors for all pumps (listed above) including SPP, 3 phase thermal overload relay. The control panel for monitoring and control of RO system shall include all required signal lamps, HRC fuses, and Annunciation box with hooter. All control and power cabling along with double earthing between the Panel shall be included in the scope of the contractor. An emergency stop push button shall be provided in the panel.
- **High pressure side** piping from the RO high pressure pumps to the rejects stream control valves shall be of SS 316 using all SS fittings ball valves of suitable pressure rating shall be used till 50 MM size, above 50 MM, flanged globe / water butterfly valves in SS construction shall be used. Rejects pressure control valves shall be globe valve and feed flow control valve shall be of SS 316.
- **SS 316 RO Water storage tank** (Capacity as per BOQ) of minimum 3mm thickness. Tank shall be provided with water flow meter at inlet & outlet, inlet / outlet valves, overflow / drain connection with MH cover (550 mm I.D.) Tank shall be mounted on 450 mm high steel structural supports with access ladder painted with 2 coats of red oxide paint.
- **RO DISTRIBUTION PIPING SHALL BE SS 304.**

**q. ELECTRICAL AND INSTRUMENTATIONS**

Control Panel : Fixed cubical type with weather proof DOL/Star Delta Starters (as per BOQ) consisting of incoming feeder with outgoing feeder feeders, Voltmeters, Ammeter, push button with indicator lamp, overload relays, Contactors, Bus bar of required size, control cabling etc.	
Type of panel:	Compartment for individual feeder
MOC:	MS (1.6mm thick sheet) fabricated with powder coating.
Earthing	Consist of Copper flats/copper wire of required size for earthing motors ,MCC Etc.
	Required compression glands ,ferrules, ties, aluminum etc.
Instrumentation	Like level controllers, pressure switches, pressure gauges as required.

**r. PORTABLE WATER PURIFIER**

- Design, Supply, installation, testing & commissioning of Portable RO with water cooler of 80 LIT (approx.) storage capacity & water flow rate 50 LPH through faucets including RO membrane, pumps, motors, cartridge filters, interconnecting pipes, valves, cable etc. along with water cooler facility.
- It shall be provided with adjustable cold water thermostat, seam welded food grade stainless steel tank, pre coated outer body, mechanically expanded condenser, overload compressor protection, sturdy compressor & trouble free operation, insitu power saving PUF insulation, no. of faucets (min. 2), 7 stages of filtration(approx.) with speedy drainage facility.
- The refrigerant shall be ecofriendly & the unit shall be silent operation type. The operating temperature shall be between 15 to 45 degree C.
- It shall be provided with auto flush feature.

**s. MATERIALS:**

- The Portable Water Purifier shall have PP meltdown sediment filter, activated carbon block, thin film composite spiral wound type reverse osmosis membrane, ultra violet membranes, diaphragm type pump, suitable for maximum 500 ppm hardness, 10 NTU turbidity, TDS of max 2000 ppm inlet water quality& a reduction upto 90% in TDS & Hardness parameters.
- The purified water flow shall be approximately 9-12 LPH on average. The system shall be suitable for a supply of 100-240 V AC / 50 Hz. The Purifier shall be supplied with all equipment membranes, filters and pumps, motors, interconnecting pipes, adaptor and cable of minimum 1.8m length & complete in all respect.

**EFFLUENT TREATMENT PLANT:**

The specifications for ETP shall be as per DBR& as per directions of the Engineer –In -Charge. The Contractor shall submit shop drawing illustrating the detailed piping & instrumentation details of entire ETP system, which shall be approved by HITES prior to start of execution work at site

**Read As:****DELETED****For:**

Vol-IV, Design Basis Report  
5. Lab Equipment & Furniture

**Scope of Supply**

After completion of the construction and installation works, all the equipment, systems and services shall be commissioned and tested to check the operation and performance of each of the equipment and system.

Bidder who quotes for Laboratory equipment/Furniture manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form, if applicable as per list of requirement in the prescribed format as per Section - I.

**Read As:**

Vol-IV, Design Basis Report  
5. Furniture

**Scope of Supply**

After completion of the installation works, all the systems shall be commissioned and tested to check the operation and performance of each of the system.

Bidder who quotes for Furniture manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form, if applicable as per list of requirement in the prescribed format as per Section - I.

**For:****List of Requirement:**

The list of Equipment and Furniture to be supplied and installed is mentioned below:

Sl. No.	Equipment Item Name	Qty	Warranty	CMC	MAF (Yes/No)
<b>MICROBIOLOGY LAB</b>					
1	Pharma Refrigerator (2-8°C)-1000 Ltr	1	3	3	Yes
2	Glassware Drying oven	1	3	3	Yes
3	Hot air oven(for depyrogenation)	1	3	3	Yes
4	Vortex Mixer	2	3	3	Yes
5	Bio safety cabinet type II	1	3	3	Yes
6	Analytical Balance(0.1 mg) with antivibration table and printer	1	3	3	Yes



7	Anaerobic Jar	1	3	3	Yes
8	Deepfreezer -20 deg C	1	3	3	Yes
9	Deepfreezer -80 deg C	1	3	3	Yes
10	Media shaker	1	3	3	Yes
11	Liquid Particle Counter	1	3	3	Yes
12	Air sampler	1	3	3	Yes
13	Water Purification System	1	3	3	Yes
14	Refrigerator	1	3	3	Yes
15	Colony Counter	1	3	3	Yes
16	BOD incubator (500 ltr,22 Deg)	2	3	3	Yes
17	BOD incubator (500ltr,32 Deg)	2	3	3	Yes
18	BOD incubator (200 ltr,43 Deg)	1	3	3	Yes
19	Incubator (200 ltr,55 Deg)	1	3	3	Yes
20	Double door autoclave 200 L	1	3	3	Yes
21	Autoclave (Vertical) 80 L	1	3	3	Yes
22	Laminar Air flow Bench	3	3	3	Yes
23	Rough Balance(top loading)-0.1 gm	1	3	3	Yes
24	UV cabinet	1	3	3	Yes
25	Microscope (With Phase Contrast and Camera attachment)	1	3	3	Yes
26	Filtration unit	1	3	3	Yes
27	Filtration unit for open method sterility- 6 manifold	1	3	3	Yes
28	Water Bath	1	3	3	Yes
29	Steam Bath	1	3	3	Yes
30	Heating Mantle	4	3	3	Yes
31	Washing Machine (Fully automatic)-7.5 Kg	1	3	3	Yes
32	pH meter with normal probe and flat probe and printer	1	3	3	Yes
33	Conductivity Meter	1	3	3	Yes
34	Oil free vacume pump	2	3	3	Yes
35	Micropipette (10 to 1000 µl) complete set	2	3	3	No
36	Heating block for BET	1	3	3	Yes
37	Garment cubicle, Dynamic	1	3	3	Yes
38	Garment cubicle, Static	1	3	3	Yes
39	Digital Vernier Calipers	1	3	3	No
40	Centrifuge	1	3	3	Yes
42	Hot Plate	1	3	3	Yes
43	Drying Oven	1	3	3	Yes
44	Cooling Cabinet	1	3	3	Yes
45	Cross Over Benches	5	3	3	No
46	Fogging Machine	1	3	3	No

<b>DRY/WET CHEMISTRY LAB</b>					
1	Ultraviolet/ Visible Spectrophotometer	4	3	3	Yes
2	FT-Infrared Spectrophotometer with ATR and Pellet Press	2	3	3	Yes
3	Karl Fischer Titrator (Semi-Micro Determination of Water)	1	3	3	Yes
4	Potentiometric Titrator with necessary electrode	2	3	3	Yes
5	Pharma Refrigerator (2-8°C) (1000 Ltr)	3	3	3	Yes
6	Analytical Balance(0.1 mg) with antivibration table and printer	4	3	3	Yes
7	Semi Micro Balance(0.01 mg)with antivibration table and printer	1	3	3	Yes
8	Melting- Point Apparatus-Digital with printer	1	3	3	Yes
9	pH meter-Digital	3	3	3	Yes
10	Digital Polarimeter Multi Wavelength with printer	1	3	3	Yes
11	Hot Air Drying oven	2	3	3	Yes
12	LOD Oven	1	3	3	Yes
13	Vacuum Oven with pump	1	3	3	Yes
14	Muffle Furnace (Digital)	1	3	3	Yes
15	Centrifuge (Table-Top )with Temperature Control	2	3	3	Yes
16	Sonicator/Ultrasonic Bath	4	3	3	Yes
17	Water Purification System	3	3	3	Yes
18	Orbital Water Bath Shaker	1	3	3	Yes
19	Rotatry Viscometer with helipath	1	3	3	Yes
20	Digital Refractor Meter	1	3	3	Yes
21	Fume Hood along with hazardous chemical storage cabinet	1	3	3	Yes
22	Magnetic Stirrer	4	3	3	Yes
23	Photo Fluorimeter	1	3	3	Yes
24	Thermostatic Water Bath	1	3	3	Yes
25	Flame Photometer	1	3	3	Yes
26	Platinum crucible	1	3	3	Yes
27	Eye Wash and Shower	1	3	3	Yes
28	Drying Oven for Glasswares (Big Sizes)	1	3	3	Yes
29	Glass ware washer	1	3	3	Yes
<b>INSTRUMENTATION LAB</b>					
1	GC-HS with FID detector	1	3	3	Yes
2	High-Performance Liquid Chromatograph with UV Detector	15	3	3	Yes
3	High-Performance Liquid Chromatograph with PDA/RI/FLD	1	3	3	Yes
4	Atomic absorption spectrophotometer(AAS) with hydride generator	1	3	3	Yes
5	High performance Thin Layer chromatography (HPTLC)	1	3	3	Yes
6	Dissolution Apparatus with Auto Sampler	3	3	3	Yes
7	Disintegration Test Equipment with printer	2	3	3	Yes

8	Disintegration Test Equipment for bolus with printer	1	3	3	Yes
9	Disintegration Test Equipment for vaginal tablets & suppository with printer	1	3	3	Yes
10	Dissolution Apparatus- Manual	4	3	3	Yes
11	TOC analyser	1	3	3	Yes
12	Microwave digestion System	1	3	3	Yes
13	Dissolution media preparation and delivery system	1	3	3	Yes
<b>COSMETIC LAB</b>					
1	Pay-off Measuring instrument for lipstick ( all visible parts made of SS)	1	Manufacturer's Standard Warranty	-	Yes
2	Pay off measuring instrument for cosmetic pencil	1		-	Yes
3	Break load tester for lipstick digital	1		-	Yes
4	Softening Point Apparatus for lipstick	1		-	No
5	Drying Time Measuring Instrument for Nail polish	1		-	No
6	Scratch Hardness tester for Nail Polish ( capacity 20-200gms)	1		-	No
7	Bend Tester 6 mm diameter mandrel	1		-	No
8	C.V. Meter for creams	1		-	Yes
9	Paint Panel Pressure Tester for nail polish	1		-	No
10	Four side Film applicator 30,60,90 & 120 micron film	1		-	No
11	One side Film applicator for nail polish 100 microns.	1		-	No
12	Foam height apparatus	1		-	No
13	Peel (bond )Strength Tester digital	1		-	No
14	Other small instrument ,chemicals , media and glass wares	1		-	No

**Read As:****Deleted****For:****1. Warranty:**

- a) Standard manufacturer's warranty(**for all the items of COSMETIC LAB**)/Three years Comprehensive Warranty(**for all the items of MICROBIOLOGY LAB, DRY/WET CHEMISTRY LAB and INSTRUMENTATION LAB**) as per Conditions of Contract of the TE document for complete equipment and Turnkey Work from the date of satisfactory installation, commissioning, trial run & handing over of equipment to Institution/Consignee/ User.
- b) 98% up time Warranty of complete equipment with extension of Warranty period by double the downtime period on 24 (hrs) X 7 (days) X 365 (days) basis.
- c) All software updates and changes should be provided free of cost during Warranty & CMC period.

Note: Furniture: **Two Year Warranty** from installation and handing over.

For Furniture sample approval to be taken from the competent authority of HITES/DHSR before bulk production.

**Read As:**

Note: Furniture:**Two Year Warranty** from installation and handing over.

For Furniture sample approval to be taken from the competent authority of HITES/DHSR before bulk production.

**For:**

**2. After Sales Service:**

After sales service centre should be available at the city of Hospital/Institution/Medical College/Organisation/Consignee on 24 (hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 24 hrs. The service should be provided by supplier. Undertaking by the Bidder that the spares for the equipment shall be available for at least 10 years from the date of supply.

**3. Training:**

On Site training to Technicians/ staff at the time of installation is to be provided by supplier (if they have the requisite know-how) for operation and maintenance of the equipment to the satisfaction of the consignee.

**4. Documentation:**

IQ, OQ AND PQ documents.

On site calibration with traceable reference material (national and international), to be done by the supplier on installation and there after every six months during warranty and CMC period.

**4. Annual Comprehensive Maintenance Contract (CMC) of subject equipment with Turnkey, if applicable:**

- a) The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual of the manufacturer, labour and spares, after satisfactory completion of Warranty period may be quoted for next **4 years on yearly basis** for complete equipment (including other vacuumatic parts wherever applicable) and Turnkey (if any). The supplier shall visit consignee site as recommended in the manufacturer's technical/ service /operational manual, at least once in three months during the CMC period
- b) The cost of CMC may be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- c) **Cost of CMC of Laboratory equipment will be added for Ranking/Evaluation purpose. The same will be taken at Net Present Value with a 10% discounting factor each year.**
- d) The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by end user on receipt of bank guarantee for 2.5 % of the cost of the equipment as per Section XV valid till 2 months after expiry of entire CMC period.
- e) There will be 98% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- f) During CMC period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.

- g) All software **updates and changes** should be provided free of cost during CMC.
- h) All the consumables parts should be covered except currettes during warranty and CMC period.
- i) Failure of the above [4. e) to 4. g)] by the supplier, may lead to the forfeiture of the Bank Guarantee for Annual CMC.
- j) The payment of CMC will be made as stipulated in GCC Clause 21.
- k) Cost of all consumables including electrodes, cartridges, calibrators, reagents, quality controls, printing paper etc. required for running the equipment for 1 year (365days) @15 samples per day to be quoted. **This Cost will be added for Ranking/Evaluation purpose.** Price list of all the consumables shall be quoted separately and the same will be freezed for a period of 3 years from the date of installation and handover. Any consumable for which price is not quoted shall be provided free of cost by the bidder during the validity of the contract.

### **5. Warranty for Laboratory equipment and Furniture**

- 5.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (*except when the design adopted and / or the material used are as per the Purchaser's/Consignee's specifications*) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.
- 5.2 This comprehensive warranty shall remain valid for **3(Three) years** after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the Purchaser/Consignee in terms of the contract, unless specified otherwise in the SCC.
  - a. No conditional warranty like mishandling, manufacturing defects etc. will be acceptable.
  - b. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work.
  - c. Replacement and repair will be under taken for the defective goods.
  - d. Proper marking has to be made for all spares for identification like printing of installation and repair dates.
- 5.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per clause number 5.2 above irrespective of any other period mentioned elsewhere in the bidding documents.
- 5.4 Upon receipt of such notice, the supplier shall, within 24 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non-rectification will be applicable as per tender conditions
- 5.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be same as mentioned under clause 5.2. In case the supplier is not able to rectify the defects to the full satisfaction of the purchaser the goods shall have to be replaced with a new one and fresh warranty as per Clause 5.2 above shall be applicable. The decision of the purchaser in this respect shall be final and binding on the supplier.

- 5.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 24 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.
- 5.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods.
- 5.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.
- 15.9 The supplier shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for **10 years** from the date of installation and handing over.

**Read As:**

**5. Warranty for Furniture**

- 5.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (*except when the design adopted and / or the material used are as per the Purchaser's/Consignee's specifications*) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.
- a. No conditional warranty like mishandling, manufacturing defects etc. will be acceptable.
  - b. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work.
  - c. Replacement and repair will be under taken for the defective goods.
  - d. Proper marking has to be made for all spares for identification like printing of installation and repair dates.
- 5.2 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier.
- 5.3 Upon receipt of such notice, the supplier shall, within 24 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non-rectification will be applicable as per tender conditions
- 5.4 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be same as mentioned under clause 5.2. In case the supplier is not able to rectify the defects to the full satisfaction of the purchaser the goods shall have to be replaced with a new one and fresh warranty as per Clause 5.2 above shall be applicable. The decision of the purchaser in this respect shall be final and binding on the supplier.

5.5 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 24 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.

**For:**

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**MANUFACTURER'S AUTHORISATION FORM**

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To

**COO (HITES)**

Infra Tech Services Limited, Procurement and Consultancy Division  
B-14A, Sector -62, Noida -201307, Uttar Pradesh

Dear Sirs,

Ref. Your TE document No \_\_\_\_\_, dated \_\_\_\_\_

We, \_\_\_\_\_ who are proven and reputable manufacturers of \_\_\_\_\_ (*name and description of the goods offered in the tender*) having factories at \_\_\_\_\_, hereby authorise Messrs \_\_\_\_\_ (*name and address of the agent*) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We further confirm that no supplier or firm or individual other than Messrs. \_\_\_\_\_ (*name and address of the above agent*) is authorised to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also hereby extend our full warranty, CMC/AMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorised agent.

We also confirm that the price quoted by our agent shall not exceed than that which we would have quoted directly.

Yours faithfully,

---

[Signature with date, name and designation]

for and on behalf of Messrs \_\_\_\_\_

[Name & address of the manufacturers]

*Note: 1. This letter of authorisation should be on the letterhead of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.*

*2. Deleted.*

**Read As:**

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**MANUFACTURER'S AUTHORISATION FORM**

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To

**COO (HITES)**

Infra Tech Services Limited, Procurement and Consultancy Division  
B-14A, Sector -62, Noida -201307, Uttar Pradesh

Dear Sirs,

Ref. Your TE document No \_\_\_\_\_, dated \_\_\_\_\_

We, \_\_\_\_\_ who are proven and reputable manufacturers of \_\_\_\_\_ (name and description of the goods offered in the tender) having factories at \_\_\_\_\_, hereby authorise Messrs \_\_\_\_\_ (name and address of the agent) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also hereby extend our full warranty, CMC/AMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorised agent.

We also confirm that the price quoted by our agent shall not exceed than that which we would have quoted directly.

Yours faithfully,

---

[Signature with date, name and designation]

for and on behalf of Messrs \_\_\_\_\_

[Name & address of the manufacturers]

*Note: 1. This letter of authorisation should be on the letterhead of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.*

*2. Deleted.*



**For:****DRUG LABORATORY EQUIPMENT LIST (BADDI)**

SN	Item Name	Qty
<b>MICROBIOLOGY LAB</b>		
1	Pharma Refrigerator (2-8°C)-1000 Ltr	1
2	Glassware Drying oven	1
3	Hot air oven(for depyrogenation)	1
4	Vortex Mixer	2
5	Bio safety cabinet type II	1
6	Analytical Balance(0.1 mg) with antivibration table and printer	1
7	Anaerobic Jar	1
8	Deepfreezer -20 deg C	1
9	Deepfreezer -80 deg C	1
10	Media shaker	1
11	Liquid Particle Counter	1
12	Air sampler	1
13	Water Purification System	1
14	Refrigerator	1
15	Colony Counter	1
16	BOD incubator (500 ltr,22 Deg)	2
17	BOD incubator (500ltr,32 Deg)	2
18	BOD incubator (200 ltr,43 Deg)	1
19	Incubator (200 ltr,55 Deg)	1
20	Double door autoclave 200 L	1
21	Autoclave (Vertical) 80 L	1
22	Laminar Air flow Bench	3
23	Rough Balance(top loading)-0.1 gm	1
24	UV cabinet	1
25	Microscope (With Phase Contrast and Camera attachment)	1
26	Filtration unit	1
27	Filtration unit for open method sterility- 6 manifold	1
28	Water Bath	1
29	Steam Bath	1
30	Heating Mantle	4
31	Washing Machine (Fully automatic)-7.5 Kg	1
32	pH meter with normal probe and flat probe and printer	1
33	Conductivity Meter	1
34	Oil free vaccume pump	2
35	Micropipette (10 to 1000 µl) complete set	2
36	Heating block for BET	1
37	Garment cubicle, Dynamic	1

38	Garment cubicle, Static	1
39	Digital Vernier Calipers	1
40	Centrifuge	1
42	Hot Plate	1
43	Drying Oven	1
44	Cooling Cabinet	1
45	Cross Over Benches	5
46	Fogging Machine	1
<b>DRY/WET CHEMISTRY LAB</b>		
1	Ultraviolet/ Visible Spectrophotometer	4
2	FT-Infrared Spectrophotometer with ATR and Pellet Press	2
3	Karl Fischer Titrator (Semi-Micro Determination of Water)	1
4	Potentiometric Titrator with necessary electrode	2
5	Pharma Refrigerator (2-8°C) (1000 Ltr)	3
6	Analytical Balance(0.1 mg) with antivibration table and printer	4
7	Semi Micro Balance(0.01 mg)with antivibration table and printer	1
8	Melting- Point Apparatus-Digital with printer	1
9	pH meter-Digital	3
10	Digital Polarimeter Multi Wavelength with printer	1
11	Hot Air Drying oven	2
12	LOD Oven	1
13	Vacuum Oven with pump	1
14	Muffle Furnace (Digital)	1
15	Centrifuge (Table-Top )with Temperature Control	2
16	Sonicator/Ultrasonic Bath	4
17	Water Purification System	3
18	Orbital Water Bath Shaker	1
19	Rotary Viscometer with helipath	1
20	Digital Refractor Meter	1
21	Fume Hood along with hazardous chemical storage cabinet	1
22	Magnetic Stirrer	4
23	Photo Fluorimeter	1
24	Thermostatic Water Bath	1
25	Flame Photometer	1
26	Platinum crucible	1
27	Eye Wash and Shower	1
28	Drying Oven for Glasswares (Big Sizes)	1
29	Glass ware washer	1
<b>INSTRUMENTATION LAB</b>		
1	GC-MS with FID detector	1
2	High-Performance Liquid Chromatograph with UV Detector	15

3	High-Performance Liquid Chromatograph with PDA/RI/FLD	1
4	Atomic absorption spectrophotometer(AAS) with hydride generator	1
5	High performance Thin Layer chromatography (HPTLC)	1
6	Dissolution Apparatus with Auto Sampler	3
7	Disintegration Test Equipment with printer	2
8	Disintegration Test Equipment for bolus with printer	1
9	Disintegration Test Equipment for vaginal tablets & suppository with printer	1
10	Dissolution Apparatus- Manual	4
11	TOC analyser	1
12	Microwave digestion System	1
13	Dissolution media preparation and delivery system	1
<b>COSMETIC LAB</b>		
1	Pay-off Measuring instrument for lipstick ( all visible parts made of SS)	1
2	Pay off measuring instrument for cosmetic pencil	1
3	Break load tester for lipstick digital	1
4	Softening Point Apparatus for lipstick	1
5	Drying Time Measuring Instrument for Nail polish	1
6	Scratch Hardness tester for Nail Polish ( capacity 20-200gms)	1
7	Bend Tester 6 mm diameter mandrel	1
8	C.V. Meter for creams	1
9	Paint Panel Pressure Tester for nail polish	1
10	Four side Film applicator 30,60,90 & 120 micron film	1
11	One side Film applicator for nail polish 100 microns.	1
12	Foam height apparatus	1
13	Peel (bond )Strength Tester digital	1
14	Other small instrument ,chemicals , media and glass wares	1

**Read As:**

**DELETED**

**For:**

**ITEMS FOR MICROBIOLOGY LAB**

**Item no:01 to 45**

**Read As:**

**Deleted**

**For:**  
**EQUIPEMENT FOR DRY/WET CHEMISTRY LAB**  
**Item no.1 to 29**

**Read As:**

**DELETED**

**For:**  
**EQUIPMENT FOR INSTRUMENTATION LAB**  
**Item no.1 to 12**

**Read As:**

**DELETED**

**For:**  
**EQUIPMENT FOR COSMETIC LAB**  
**Item no.1 to 14**

**Read As:**

**DELETED**

**DRUG LABORATORY FURNITURE LIST (BADDI)**

**Added As:**  
**Make: Godrej, Kewaunee, GD Lab Solutions, Kotterman**

**All other contents of the tender enquiry including terms & conditions remain unaltered.**  
**Note: Prospective Bidders are also advised to check the website regularly prior to the Closing date and time of online submission of bids.**