GEM TENDER FOR

Design, Engineering, Manufacturing, Supply, Erection, Installation and Commissioning of SS, MSGL & all Glass Reactors of different sizes, utilities and other related items for the establishment of Centre of Excellence in Bulk Drugs (Specifications as per Annexure – I)

Tender Ref No.: PUR/NIPER HYD/NC/117/24

Date: 07.04.2025

NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION AND RESEARCH-Hyderabad

Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers Government of India
NH 9, Balanagar Main Rd, Kukatpally Industrial Estate, Hyderabad, Telangana 500037, India

Phone: +91 40 23074750 (Ext. No: 2018)

Email: spnniperhyd@gov.in

NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION AND RESEARCH-Hyderabad

Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers Government of India
NH 9, Balanagar Main Rd, Kukatpally Industrial Estate, Hyderabad, Telangana 500037, India

F. No: PUR/NIPER HYD/NC/117/24 Date: 04.04.2025

Sl. No.	Name of Item	Quantity
1.	Design, Engineering, Manufacturing, Supply, Erection, Installation and Commissioning of SS, MSGL & all Glass Reactors of different sizes, utilities and other related items for the establishment of the Centre of Excellence in Bulk Drugs (Specifications as per Annexure-I)	As per specifications

समन्य दनयम और शर्तें / **GENERAL TERMS & CONDITIONS:**

1. मूल्य / **PRICE:** The rate quoted must be risk-free FOR NIPER-Hyderabad with all-inclusive installation, commissioning, demonstration, etc. costs.

2. ईएमडी जम / **EMD Deposit:** A refundable Earnest Money Deposit (EMD) amounting to ₹ 23,40,000/- in the form of Demand Draft drawn in favour of "The Director, NIPER-Hyderabad" issued from a Commercial Bank, will have to be submitted along with the quotation. Offers received without Earnest Money or valid Certificate shall be summarily rejected. As per Rule 170 of General Financial Rules (GFRs) 2017, Micro and Small Enterprises (MSEs) and the firms registered with concerned Ministries/ Departments are exempted from submission of EMD.

3. कृपया बोली के साथ निम्नलिखित दस्तावेज़ प्रस्तुतं करन सुदनदिर्त करें/ **PLEASE ENSURE SUBMISSION OF FOLLOWING DOCUMENTS WITH BID:**

a. Quotation with rates, detailed terms and conditions (Financial Bid). Seller must attach an authorisation letter from principals if Indian Agents submit the quotation on behalf of their principals.
b. Detailed Technical specification for each item for which quotation is submitted. Highlight the technical specifications of the equipment.
c. Printed technical Literature/Leaflets of the item/Brochure wherever available.
d. Provide company profile and brief notes indicating your experience in manufacturing/supplying such items.
e. Detailed customer list with addresses, Phone numbers, E-mail, etc., and name of contact and alternative contact person.
f. The bidder should have supplied and installed similar kind of work to Centrally Funded Technical Institutions / National Laboratories / Research Institutes/ Medical Institutes (CSIR labs, IITs, NIPERs, AIIMS, NITs, IISCs, IISERs, IIITs etc.) in the last five years and should provide Purchase Orders of those as documentary evidence. Further, the bidder must provide a certificate of satisfactory performance from the organisation to which they have recently supplied. Contact details of the faculty/person-in-charge of the installed setup must also be provided.
g. Certificate of Incorporation/ Registration Certificate of the firm / Company/Agency
h. Income Tax returns filed for the last three financial years
i. PAN No.

j. GST Registration certificate
k. Bidder/Agent who quotes for items manufactured by the other manufacturer shall furnish a scanned copy of the Manufacturer's Authorization Form as per Annexure-I.
l. The tenders not meeting the eligibility criteria will be liable for rejection. Hence, the tenderers are advised to attach relevant documents in support of their eligibility.
m. The OEM certificate or the valid authorisation letter from the OEM for the sale & support of the product quoted. (Annexure II and III).
n. Seller has to submit the details of its manufacturing facilities on its letterhead
o. Signed Copy of Integrity Pact (Annexure IV) on letterhead by the authorised signatory.

4. A detailed point-wise technical compliance/deviation statement is to be provided, enabling the user department to have a clear idea of the technical compliance of the offer submitted.

5. Delivery timelines- Design, Engineering, Manufacturing, Supply, Erection, Installation and commissioning

1.	PO receipt date	WK 0	(Day zero)
2.	Design and Engineering phase (submission of drawings and documents and approval from the client)	4 to 6 Weeks	(from the day zero)
3.	Procurement phase (starts from approval of drawings by the client)	8 weeks	(from the completion of the design phase)
4.	Manufacturing phase	12 weeks	(from the completion of the Procurement phase)
5.	FAT, inspection and dispatch to the site	4 weeks	(from the completion of the Manufacturing phase)

6. Site activities

1.	Erection, installation, commissioning, training and handover (after receipt of material at the site)	8 Weeks	(from the receipt of material at the site)

Note: - Some of the above-mentioned project phases will run parallelly and will overlap. The bidders are expected to quote the price, including all the charges, taxes, transportation and other charges/taxes. Price includes components like packing, freight, forwarding, and delivering the same in good condition at NIPER-Hyderabad. It will be the further responsibility of the supplier to ensure not only the unloading of materials but also to ensure the safe shifting of ordered materials to the installation site, which is given above. Bids that do not conform to the above conditions are liable for rejection. The contractual obligations are treated as completed only when all the ordered items are handed over to the institutes in ready-to-use condition and installed and accepted by the user department.

7. वारंटी/ **Warranty:** This institute would like to have a minimum 03 years comprehensive warranty. Also, the Seller has to quote an additional Warranty for 2 years with a price breakup year-wise in the financial bid document (as per attached excel in bid document), however, this amount shall be excluded in the overall amount quoted in the financial bid quote.

8. भुगर्त न की शर्तें / **Payment Terms:** Advance payment, if any, may be made not more than 30% of the contract value, in any case, subject to submission of Bank Guarantee of the same amount, after the acceptance of design by the user department.

   50% payment will be released on supply of the materials proportionately in not more than three installments. Taxes will be paid 100% on submission of original tax invoice.
   20% will be released on the final installation, and commissioning of the entire facility which includes trial runs with water and chemical both.
   If the contract is terminated due to default of the contractor or the contract gets delayed, the advance payment would be deemed as an interest-bearing advance at the interest rate (e.g., the interest rate of the General Provident Fund – GPF) prevailing on the date of release of advance payment, plus 2% to be compounded quarterly (for delayed period only).

9. Prices are required to be quoted in units indicated in the enquiry. When quotations are given in terms of other units, a relationship between two sets of units should be furnished—quantity discounts, if any, should also be indicated.

10. This institute is registered with the Dept. of Scientific & Industrial Research (DSIR), Govt. of India, and concessional custom duty is leviable.

11. TDS would be recovered per rules in case of Fabrication/Servicing/Maintenance jobs/Installation charges etc. Other deductions may also be made, like electric and water charges, if any.

12. आपूर्ति/सेवाओं के लिए स्थान / **Locations for the supply/services:** The bidders may note that the items covered by this document are required to be supplied and installed at:

    NIPER Hyderabad, Balanagar, Hyderabad, 500037

13. NIPER-Hyd will not provide any accommodation/transportation for the engineers/ representatives to attend installation, commissioning, and demonstration work. It is the

absolute responsibility of the principal supplier/agent to make their own arrangements.

14. बोली की वैधता/ **Bid Validity:** The Bid shall remain valid for acceptance for a period of 120 days after the date of Bid opening prescribed in the Bidding Document. Any Bid valid for a shorter period shall be treated as unresponsive and rejected.
    a. In exceptional cases, the Bidders may be requested by the Institute to extend the validity of their Bids up to a specified period. The Bidders, who agree to extend the Bid validity, are expected to extend the same without any change or modification.
15. निष्पादन सुरक्षा/ **Performance Security:-** A performance security against the warranty period equivalent to 5% of the total order value will have to be furnished by the supplier in the form of Payee Demand Draft / Fixed Deposit / Bank Guarantee, in favour of **"*Director, NIPER- Hyderabad*"** issued by a Commercial Bank within 21 days from the date of installation of the ordered item (s). The performance security shall remain valid for the warranty period starting from the installation date, plus an additional 60-day claim period for the institute.
16. मेक इन इंडिया नीति **/ Make in India Policy:** As per GeM GTC and Department of Expenditure Orders in this regard. Both Class I and II bidders (relevant documents have to be submitted) can apply for the tender.
17. खरीद प्राथमिकता की आवश्यकता/ **Requirement of Purchase Preference:** As per GeM GTC and Department of Expenditure Orders in this regard. Startups and MSEs have to submit the relevant documents along with a bid to avail of the relaxation/preference.
18. स्वीकृति एवं अस्वीकृति/ **Acceptance & Rejection:** The acceptance of the quotation will rest with the Director, NIPER-Hyderabad, who does not bind himself to accept the lowest quotation and reserves the right to himself to reject or accept, partially or all the quotations received, without assigning any reason. The Director, NIPER-Hyderabad, further reserves the right to withdraw the tender or part thereof or modify the requirements without assigning any reason and the right to relax any of the conditions in the best interest of the Institution.
19. जुर्माना/ **Penalty:** A penalty equivalent to 0.5% of the order value per week of delay beyond the stipulated delivery period subject to a maximum of 10% penalty is chargeable. The supply order will be liable for instant cancellation beyond permissible delay.
20. All disputes shall be settled in the courts of Hyderabad Jurisdiction only.
21. बीम / **Insurance:** In the case of Imported items, the institute requires insurance coverage on a warehouse basis to cover all types of en-route risks. In other words, the insurance coverage starts from the manufacturer's premises to the NIPER-Hyderabad premises. In order to ensure lodging an insurance claim within the stipulated time, the supplier's authorised representative must be present in the institute on the day of delivery of the consignment to check the package/s to ensure that the same is received without any externally visible damages. The supplier has to arrange for customs clearance from the destination airport in India and arrange for its safe onward transmission to NIPER- Hyderabad. The Institute will provide connected documents like a Duty

Exemption certificate for availing of the Duty Exemption, an authorization letter, etc. It may further ensure that Insurance coverage should be from the supplier's warehouse to NIPER-Hyderabad Institute premises and should not end at the destination port of clearance.

22. निविदा दस्तावेज़ के नियमों और शर्तों की स्वीकृति/ **Acceptance of the terms and conditions of tender document**: Bidders are expected to provide a certificate that all the terms and conditions of enquiry are accepted.
23. पत्राचार/ **Correspondence:** All the correspondence related to the procurement should be addressed to the SPC Chairman, Stores and Purchase Section, NIPER Hyderabad, till the placement of the order, who is the final deciding authority and whose decisions are final.
24. This tender comes under the purview of the Integrity Pact. The details of IEMs appointed by CVC for the institute are given below: -

    a) Lt. Gen. Abhay Krishna
    Email Id: abhayabk@gmail.com

    b) Shri Prakash Chandra
    Email Id: prakashchandra59@yahoo.co.in

25. छूट / **Relaxation:** Director, NIPER-Hyderabad reserves the right to relax any of the conditions in exceptional cases, in the best interest of NIPER-Hyderabad. NIPER-Hyderabad reserves the right to withdraw the tender in whole or part at any stage without assigning any reason.

26. नोट / **Note:** To compare the cost with other competitive suppliers, the suppliers are expected to offer FOR NIPER-Hyderabad all-inclusive cost. It is not possible for either the supplier or the institute to add any price component after opening the commercial bids. The quoted rate should cover all risks and FREE delivery (All-inclusive cost and taxes up to NIPER-H). The supplier may please note this condition.

The seller must submit their technical and financial bid in line with the terms and conditions of this tender document and GEM bid document, strictly.

Sd/-

SPC Chairman,
NIPER Hyderabad

Annexure-I

Technical Specifications

Sl.no	Item Specification	Quantity
1	**ASME SEC. VIII DIV. I Edition 2021 & GEP Norms applicable.** "**R-101, 1000L SS316L**, Special designed pre-insulated SS jacketed Reactor with dual insulation (LRV+PUF) including flush bottom outlet valve. Technical Specification: - Reactor Type: Cylindrical & Vertical Operating Pressure : 3kg/cm2 (g) to Full Vacuum Design Pressure : 4kg/cm2 (g) to Full Vacuum Test Pressure : 5.2kg/cm2 (g) to Full Vacuum Operating Tem : 120 °C Design Tem : 150 °C Radiography (Sh/D-end) : 10% /100% Joint Efficiency (Sh/Head) : 0.85/1.0 Corrosion Allowance : Nil Shell Thickness : 6mm Top dish Thickness : 6mm (nom), 5.4mm (min) Baffle Plates : 4 Nos Bottom dish Thickness : 6mm (nom), 5.4mm (min) Flush Bottom Valve **Reactor Top Cover and accessories** SS316L top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare • Vessel lamp • Pressure safety relief valves for equipment and utility. • Rupture disc with holder **Agitator assembly including:** • Agitator type: 2 stage hydrofoil and 1 stage PBT (PBT at the bottom). Complete stool assembly arrangement, bearing housing, taper roller bearings, oil seal, rigid coupling, and flexible coupling pin bush type. • Motor: Flameproof, Make Crompton/Bharat Bijlee/Equivalent • Gear box make: Bonfiglioli • Single dry mechanical seal with heat trap • Make: Leak-proof/Seal well/Equivalent **Surface Finish** • Internal: 240# Mirror Finish • External: 180# **Matt** Finish **Overhead Assembly: -** • Vapour Column with required height. • Primary and Secondary Box Type Heat Exchanger HTA: (6m2+2m2) SS316 MOC • Multi nozzle Cylindrical Feed Vessel Cap: 500L Qty:01 No SS316 MOC • Multi nozzle Cylindrical Receiver Vessel Cap: 500L Qty:01 No SS316 MOC • Interconnecting Process Pipelines and valves of appropriate sizing for the complete systems.	**1 No.**

	Instrumentation: - • Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button). • Safe area panel: VFD and other electrical accessories"	
2	**ASME SEC. VIII DIV. I Edition 2021 & GEP Norms applicable.** "**R-102, 500L SS316L**, Special designed pre-insulated SS jacketed Reactor with dual insulation (LRV+PUF) including flush bottom outlet valve. Technical Specification:- Reactor Type: Cylindrical & Vertical Operating Pressure : 3kg/cm2 (g) to Full Vacuum Design Pressure : 4kg/cm2 (g) to Full Vacuum Test Pressure : 5.2kg/cm2 (g) to Full Vacuum Operating Tem : 120 °C Design Tem : 150 °C Radiography (Sh/D-end) : 10% /100% Joint Efficiency (Sh/Head) : 0.85/1.0 Corrosion Allowance : Nill Shell Thickness : 6mm Top dish Thickness : 6mm (nom) , 5.4mm (min) Baffle Plates : 4 Nos Bottom dish Thickness : 6mm (nom) , 5.4mm (min) Flush Bottom Valve **Reactor Top Cover and accessories** SS316L top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare • Vessel lamp • Pressure safety relief valves for equipment and utility. • Rupture disc with holder **Agitator assembly including:** • Agitator type: 2 stage hydrofoil and 1 stage PBT (PBT at the bottom) Complete stool assembly arrangement, bearing housing, taper roller bearings, oil seal, rigid coupling, and flexible coupling pin bush type. • Motor: Flameproof, Make Crompton/Bharat Bijlee/Equivalent • Gear box make: Bonfiglioli • Single dry mechanical seal with heat trap • Make: Leak-proof/Seal well/Equivalent **Surface Finish** • Internal: 240# Mirror Finish • External: 180# **Matt** Finish **Overhead Assembly: -** • Vapour Column with required height. • Primary and Secondary Box Type Heat Exchanger HTA: (4m2+2m2) SS316 MOC. • Multi nozzle Cylindrical Feed Vessel Cap: 200L Qty:01 No SS316 MOC.	**1 No.**

	• Multi nozzle Cylindrical Receiver Vessel Cap: 250L Qty:01 No SS316 MOC. • Interconnecting Process Pipelines and valves of appropriate sizing for the complete systems. **Instrumentation: -** • Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button). • Safe area panel: VFD and other electrical accessories"	
3	**ASME SEC. VIII DIV. I Edition 2021 & GEP Norms applicable.** "**R-104, 250L SS316L**, Special designed pre-insulated SS jacketed Reactor with dual insulation (LRV+PUF) including flush bottom outlet valve. Technical Specification: - Reactor Type: Cylindrical & Vertical Operating Pressure : 3kg/cm2 (g) to Full Vacuum Design Pressure : 4kg/cm2 (g) to Full Vacuum Test Pressure : 5.2kg/cm2 (g) to Full Vacuum Operating Tem : 120 °C Design Tem : 150 °C Radiography (Sh/D-end) : 10% /100% Joint Efficiency (Sh/Head) : 0.85/1.0 Corrosion Allowance : Nill Shell Thickness : 6mm Top dish Thickness : 6mm (nom) , 5.4mm (min) Baffle Plates : 4 Nos Bottom dish Thickness : 6mm (nom) , 5.4mm (min) Flush Bottom Valve **Reactor Top Cover and accessories** SS316L top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare • Vessel lamp • Pressure safety relief valves for equipment and utility. • Rupture disc with holder **Agitator assembly including:** • Agitator type: 2 stage hydrofoil and 1 stage PBT. (PBT at the bottom) Complete stool assembly arrangement, bearing housing, taper roller bearings, oil seal, rigid coupling, and flexible coupling pin bush type. • Motor: Flameproof, Make Crompton/Bharat Bijlee/Equivalent • Gear box make: Bonfiglioli • Single dry mechanical seal with heat trap • Make: Leakproof/Sealwell/Equivalent **Surface Finish** • Internal: 240# Mirror Finish • External: 180# **Matt** Finish **Overhead Assembly: -** • Vapour Column with required height. • Primary and Secondary Box Type Heat Exchanger HTA: (3m2+1m2) SS316 MOC.	**1 No.**

	• Multi nozzle Cylindrical Feed Vessel Cap: 100L Qty:01 No SS316 MOC. • Multi nozzle Cylindrical Receiver Vessel Cap: 150L Qty:01 No SS316 MOC. • Interconnecting Process Pipelines and valves of appropriate sizing for the complete systems. **Instrumentation: -** • Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button). • Safe area panel: VFD and other electrical accessories"	
4	**ASME SEC. VIII DIV. I Edition 2021 & GEP Norms applicable.** "**R-106, 250L SS316L**, (**High vacuum distillation system**) Special designed pre-insulated SS jacketed Reactor with dual insulation (LRV+PUF) including flush bottom outlet valve. Technical Specification: - Reactor Type: Cylindrical & Vertical Operating Pressure : 3kg/cm2 (g) to Full Vacuum Design Pressure : 4kg/cm2 (g) to Full Vacuum Test Pressure : 5.2kg/cm2 (g) to Full Vacuum Operating Tem : 250 °C Design Tem : 300 °C Radiography (Sh/D-end) : 10% /100% Joint Efficiency (Sh/Head) : 0.85/1.0 Corrosion Allowance : Nill Shell Thickness : 6mm Top dish Thickness : 6mm (nom) , 5.4mm (min) Baffle Plates : 4 Nos Bottom dish Thickness : 6mm (nom) , 5.4mm (min) Flush Bottom Valve **Reactor Top Cover and accessories** SS316L top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare • Vessel lamp • Pressure safety relief valves for equipment and utility. • Rupture disc with holder **Agitator assembly including:** • Agitator type: 2 stage hydrofoil and 1 stage PBT (PBT at the bottom) Complete stool assembly arrangement, bearing housing, taper roller bearings, oil seal, rigid coupling, and flexible coupling pin bush type. • Motor: Flameproof, Make Crompton/Bharat Bijlee/Equivalent • Gear box make: Bonfiglioli • Double dry mechanical seal with heat trap • Make: Leak-proof/Seal well/Equivalent **Surface Finish** • Internal: 240# Mirror Finish • External: 180# **Matt** Finish **Overhead Assembly: -** • Vapour Column with required height.	**1 No.**

	• Primary and Secondary Box Type Heat Exchanger HTA: (3m2+1m2) SS316 MOC. • Multi nozzle Cylindrical Feed Vessel Cap: 100L Qty:01 No SS316 MOC. • Multi nozzle Cylindrical Receiver Vessel Cap: 150L Qty:02 No SS316 MOC. • Interconnecting Process Pipelines **(Sch.40)** and valves of appropriate sizing for the complete systems. **Instrumentation: -** • Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button). • Safe area panel: VFD and other electrical accessories"	
5	**ASME SEC. VIII DIV. I Edition 2021 & GEP Norms.** "**R-107, 500L SS316L**, Special designed pre-insulated SS jacketed Reactor with dual insulation (LRV+PUF) including flush bottom outlet valve. Technical Specification: - Reactor Type: Cylindrical & Vertical Operating Pressure : 3kg/cm2 (g) to Full Vacuum Design Pressure : 4kg/cm2 (g) to Full Vacuum Test Pressure : 5.2kg/cm2 (g) to Full Vacuum Operating Tem : 120 °C Design Tem : 150 °C Radiography (Sh/D-end) : 10% /100% Joint Efficiency (Sh/Head) : 0.85/1.0 Corrosion Allowance : Nill Shell Thickness : 6mm Top dish Thickness : 6mm (nom) , 5.4mm (min) Baffle Plates : 4 Nos Bottom dish Thickness : 6mm (nom) , 5.4mm (min) Flush Bottom Valve **Reactor Top Cover and accessories** SS316L top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare • Vessel lamp • Pressure safety relief valves for equipment and utility. • Rupture disc with holder **Agitator assembly including:** • Agitator type: 2 stage hydrofoil and 1 stage PBT. (PBT at the bottom) Complete stool assembly arrangement, bearing housing, taper roller bearings, oil seal, rigid coupling, and flexible coupling pin bush type. • Motor: Flameproof, Make Crompton/Bharat Bijlee/Equivalent • Gear box make: Bonfiglioli • Single dry mechanical seal with heat trap • Make: Leak-proof/Seal well/Equivalent **Surface Finish** • Internal: 240# Mirror Finish • External: 180# **Matt** Finish **Overhead Assembly: -**	**1 No.**

	• Vapour Column with required height. • Primary and Secondary Box Type Heat Exchanger HTA: (4m2+2m2) SS316 MOC. • Multi nozzle Cylindrical Feed Vessel Cap: 100L Qty:01 No SS316 MOC. • Multi nozzle Cylindrical Receiver Vessel Cap: 150L Qty:01 No SS316 MOC. • Interconnecting Process Pipelines and valves of appropriate sizing for the complete systems. **Instrumentation: -** • Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button). • Safe area panel: VFD and other electrical accessories"	
6	**ASME Section-VIII, Div-1 applicable** **R-103, 250L** MSGL, Pre-insulated Jacketed MS Glass Linedreactor bottom Pan with SS cladding including bottom outlet valve. Capacity nominal volume (L) 250. Design Pressure Kg/cm2 (g) vessel – Full vacuum & 6 Design Pressure Kg/cm2 (g) Jacket -6 Kg/cm2 (g). Design temperature (deg c) vessel (-) 28.8 to 220 deg c, Design temperature Jacket – (-) 28 to (+) 220 deg c. Hydro static test Pressure after lining) (Kg/cm2 (g)) vessel and jacket 6. Flush Bottom Valve **Reactor Top Cover and accessories** MSGL top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare • Vessel lamp • Pressure safety relief valves for equipment and utility. • Rupture disc with holder → Agitator Assembly including Glass lined PBT + CBRT type 2 stage stirrer with FLP Motor (IE3). → Glass Vapour Column with required height. → Primary:- Glass Shell & Tube Type Heat Exchanger HTA: 3m2 → Secondary :- Glass Shell & Coil Type Heat Exchange HTA: 1m2 → Multineck Graduated Glass Cylindrical Feed Vessel Cap: 100L,Qty: 01 Nos → Multineck Graduated Spherical Receiver Vessel Cap: 150L, Qty : 01 Nos → Interconnecting Process Pipelines and valves of appropriate sizing for the complete systems. **Instrumentation: -** → Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button) → Safe area panel: VFD and other electrical accessories.	**1 No.**
7	Glass distillation assembly-reactor should be triple wall → Triple wall glass reactor bottom pan DN500. Cap: 100L Design Temperature (Jacket) : -30 °C to 200°C Design Pressure : Full Vacuum to 0.5 Bar → Spring loaded glass flush bottom outlet valve	**1 No.**

	Reactor Top Cover and accessories Glass top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare → SS PFA lined dip pipe cum baffle → SS PTFE lined TP cum baffle with alloy C-22 "C" tip , agitator assembly. **Agitator assembly including:** • Bearing housing and mechanical seal housing assembly. • Single stage dry running Mechanical Seal • SS PTFE lined PBT + PBT Stirrer • Gear box (Bonfiglioli) • Flame proof motor. • VFD **Overhead Glass Assembly: -** • Vapour Column with required height. • Primary: - Shell & Coil Type Condenser HTA: 1.5m2 • Secondary: - Shell & Coil Type Condenser HTA: 0.6 m2 • Multineck Graduated Glass Cylindrical Feed Vessel Cap: 50L, Qty: 01 Nos • Multineck Graduated Spherical Receiver Vessel Cap: 50L, Qty: 02Nos • Interconnecting Process Pipelines and valves of appropriate sizing for the complete systems. • Pressure Safety Valve. • Rupture / Bursting Disc. • SS304 Tubular Supporting structure with structural accessories. **Instrumentation: -** Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button) Safe area panel: VFD and other electrical accessories. Glass must be borosilicate 3.3 Schott Duran imported German Glass. BS EN 12585:1999 - Glass Plant, Pipeline, and Fittings for Process Industries	
8	Glass distillation assembly-reactor should be triple wall → Triple wall glass reactor bottom pan , Cap: 50L Design Temperature (Jacket) : -30 °C to 200°C Design Pressure : Full Vacuum to 0.5 Bar → Special designed spring loaded glass flush bottom outlet valve **Reactor Top Cover and accessories** Glass top cover of the vessel Including nozzles for. • Agitator drive, • Thermometer pocket • Vapour outlet • Liquid feed • Solid charging/View glass • Reflux • Spare → SS PFA dip pipe cum baffle → SS PTFE lined TP cum baffle with alloy C -22 "C" tip **Agitator assembly including:** • Bearing housing and mechanical seal housing assembly.	**1 No.**

	• Single stage dry running Mechanical Seal • SS PTFE lined PBT + PBT Stirrer • Gear box (Bonfiglioli) • Flame proof motor. • VFD **Overhead Glass Assembly: -** • Vapour Column with required height. • Primary: - Shell & Coil Type Condenser HTA: 1.0m2 • Secondary: - Shell & Coil Type Condenser HTA: 0.6 m2 • Multineck Graduated Glass Cylindrical Feed Vessel Cap: 20L, Qty: 01 Nos • Multineck Graduated Spherical Receiver Vessel Cap: 20L, Qty: 02Nos • Interconnecting Process Pipelines and valves of appropriate sizing for the complete systems. • Pressure Safety Valve. • Rupture / Bursting Disc. • SS304 Tubular Supporting structure with structural accessories. **Instrumentation: -** Unsafe area panel: FLP (2 temp. indicator, rpm indicator, speed controller, start/stop push button) Safe area panel: VFD and other electrical accessories. Glass must be borosilicate 3.3 Schott Duran imported German Glass. BS EN 12585:1999 - Glass Plant, Pipeline, and Fittings for Process Industries	
9	Centrifuge, 24" with Halar, 100L ML tank with AODD pump- 5 m3/Hr and 20 m Head. Manual top discharge centrifuge for separating solid-liquid mixture based on centrifugal force. All contact parts in SS 304 +Halar and non contact parts SS304. Design: Four point suspension design, outer body bolted to main structure. Discharge: Manual top – based solid discharge.	**1 No.**
10	**ASME SEC. VIII DIV.I, Edition 2021 applicable** Intermediate-Drying, 1000 mm dia ,**500L** Agitated Nutsch Filter Dryer (ANFD) (trolley type) & condenser with trap 2m2, contact parts SS316 L, non contact parts SS 304/ MS. Type of vessel cylindrical, vertical vessel with top dished welded and bottom flat detachable with Limpet coil/ Jacket and insulation. Filtration area 0.75 m2. 100L ML tank & AODD Pump 5m3/hr, 20 m Head. Water ring vacuum pump of suitable capacity, 720 mm Hg vacuum. Agitator S- type (hollow). Agitator speed 8 to 11 RPM. Hydraulic power pack. Insulation 40 mm PUF + 25 mm LRB- with SS304 – 3mm thick cladding. Finish 180 # Mirror finish external, 240 # Mirror finish internal. Double dry mechanical seal with expansion bellow. Suitable accessories and safety devises required.	**1 No.**
11	**ASME SEC. VIII DIV.I, Edition 2021 applicable** Clean room drying, 800mm dia**, 300L** Agitated Nutsch Filter Dryer (ANFD) (trolley type), condenser with trap 2 sqm, contact parts SS316 L, non contact parts SS 304/ MS. Type of vessel cylindrical, vertical vessel with top dished welded and bottom flat detachable with Limpet coil/ Jacket and insulation. Filtration area 0.50 m2. 100L ML tank AODD pump 5 m3/hr and 30 m head, water ring vacuum pump of suitable capacity, 720 mm Hg vacuum. Agitator S-type (hollow). Agitator speed 8 to 12 RPM. Hydraulic power pack. Insulation 40 mm PUF + 25 mm LRB- with SS304 – 3mm thick cladding. Finish 180 # Mirror finish external, 240 # Mirror finish internal. Double dry mechanical seal with expansion bellow. Suitable accessories and safety devises required.	**1 No.**
12	**ASME SEC. VIII DIV.I, Edition 2021 applicable** Roto Cone Vacuum Dryer (RCVD), **300L**, SS316L, 2m2 Condenser with trap, 180 Ltr (working volume) 300 L (Gross volume). 300L capacity Rotary Cone Vacuum dryer body having 815 mm ID X 350 mm height X 8mm thick, conical	**1 No.**

	45 made out of 6 mm thick SS316 L plates. The jacket of the dryer is provided with 915 mm ID X 390 mm height X 6 mm thk 45 degree cone made out of 6 mm thick SS304 plate placed on either side of the main body with baffles to take care of vacuum and jacket pressure→ AODD pump- 5 m3/Hr and 20 m Head, water ring vacuum pump suitable capacity, 720 mm Hg vacuum. The Double cone is mounted on 60 mm dia SS-316L shaft on the vacuum side and 32m dia SS-304 shaft on the hot water side.	
13	**ASME SEC. VIII DIV.I, Edition 2021 applicable** Roto Cone Vacuum Dryer (RCVD), **300L**, SS316L, 2m2 Condenser with trap, 180 Ltr (working volume) 300 L (Gross volume). 300L capacity Rotary Cone Vacuum dryer body having 815 mm ID X 350 mm height X 8mm thick, conical 45 made out of 6 mm thick SS316 L plates. The jacket of the dryer is provided with 915 mm ID X 390 mm height X 6 mm thk 45 degree cone made out of 6 mm thick SS304 plate placed on either side of the main body with baffles to take care of vacuum and jacket pressure→ AODD pump- 5 m3/Hr and 20 m Head, water ring vacuum pump suitable capacity, 720 mm Hg vacuum.	**1 No.**
14	Sparkler Filter with skid and pump with zero holdup **14 inch** Dia and 10 plates, zero hold up type GMP model with Pump and motor. Size 14" Dia X 10 plates, Model GMP, Zero hold up, Material of construction (MoC) contact parts SS316L, MoC non contact parts SS304. Filtering area 1.0 m2 approx, Flow rate 1700 litrs/hour (approx.) Cake holding capacity 30.25. Plates- MoC SS316L, No. of Plates- 10 Nos., Diameter-14", Thickness of plates- 16 SWG, Thickness of Sieves- 16 SWG, Height of plates- 38 mm. Perforated Screen – MoC SS316L, Thickness of sieves 16 SWG, Quantity of sieves- 11 nos. Filter media- Filter copy – Filter paper, Quantity of filter cloth – 11 nos. Pressure cups- MoC SS316L, Quantity – 10 Nos, Diameter- 64 mm. Filter Shell MoC- SS316L, thickness 3.2 mm thk (approx.), Type of dish- Torri spherical, working pressure- 4kg/cm2, Design pressure- 6 kg/cm2. Pump type- centrifugal, MoC- SS316L, Shaft seal – Mechanical. Motor make – CGL/BB make foot mounted/equivalent. Motor HP- 2 HP, Motor RPM- 2800 RPM, Motor FLP, Motor cover – SS304. Jacket optional MoC- SS304, thickness 16 SWG, type of dish- jacket on shell only. Working pressure 1kg/cm2 / 3.5 kg/cm2 hydrotest, design pressure- 6 kg/cm2.	**1 No.**
15	Pressure Nutsch Filter- **100 liters**, SS316 + Halar, design temperature (-) 40 to (+) 160 deg c, design pressure FV to 4 kg/cm2. Working temperature (-) 40 to (+) 150 deg c. Working pressure FV to 3 kg/cm2. Hydro test 5 kg/cm2. Surface area – 1.58 sqm (approx.). Top Shell , Bottom Shell, Top Lid, Bottom dish, Top dish MoC – SA240 Gr. 316 / 316L. Gasket Food grade PTFE.	**1 No.**
16	Vibro shifter **24"**. Model GMP, Size – 24 "Dia (610 mm), output per hour 50 to 200 Kg/Hr (depending upon screen and products). Deck single, base shell 2.5 mm thick SS304, Discharge hopper, Middle Hopper and Top Lid 1.6 mm thick SS316, Manual charging and unloading by gravity. Screen (mesh) 40 mesh silicon molded. Motor Non FLP 0.5 HP /1440 RPM. Magnetic grill to entrap if any presence of ferrous metal in the material.	**1 No.**
17	Vibro shifter **24"**. Model GMP, Size – 24 "Dia (610 mm), output per hour 50 to 200 Kg/Hr (depending upon screen and products). Deck single, base shell 2.5 mm thick SS304, Discharge hopper, Middle Hopper and Top Lid 1.6 mm thick SS316, Manual charging and unloading by gravity. Screen (mesh) 40 mesh silicon molded. Motor Non FLP 0.5 HP /1440 RPM. Magnetic grill to entrap if any presence of ferrous metal in the material.	**1 No.**
18	Multi mill 1 HP motor GMP model, contact parts SS316L and non-contact parts SS 304. Capacity 25 to 50 Kg /Hr on chalk basis for 0.5 mm, Shell thickness 14 swg. Wheels SS Bracket castor wheel (Antistatic). Gasket PTFE, RPM 0 to 2800 (variable with VFD), Rotor dia 70mm with 10 nos blades having maximum dia of blades as 190mm, knife impact edges swinging type. Scrapper blades 2nos.	**1No.**

	SS316 (25 mm *25 mm), Beater blades 10 nos. SS316 (25 mm * 6mm * 102 mm). Sieve SS316 1 no. with the machine. Mounting on SS 304 circular legs and will rest on PU wheels. Finish – Shall be 240 grit all over inside and 180 grit mirror finish outside.	
19	Multi mill 1 HP motor GMP model, contact parts SS316L and non-contact parts SS 304. Capacity 25 to 50 Kg /Hr on chalk basis for 0.5 mm, Shell thickness 14 swg. Wheels SS Bracket castor wheel (Antistatic). Gasket PTFE, RPM 0 to 2800 (variable with VFD), Rotor dia 70mm with 10 nos blades having maximum dia of blades as 190mm, knife impact edges swinging type. Scrapper blades 2nos. SS316 (25 mm *25 mm), Beater blades 10 nos. SS316 (25 mm * 6mm * 102 mm). Sieve SS316 1 no. with the machine. Mounting on SS 304 circular legs and will rest on PU wheels. Finish – Shall be 240 grit all over inside and 180 grit mirror finish outside.	**1No.**
20	MSGL Receiver 500L for all reactor common addition	**1 No.**
21	MSGL Receiver 500L for all reactor common addition (receiving organic layer)	**1 No.**
22	Blender with multi product basket- Octagonal blender 200 Ltrs , Gross capacity (GMP) model, all powder contact parts SS316L	**200L**
23	TCU (-35 to 250 deg c) suitable for 50L or 100L Glass reactors, water cooled machine, heating power 10 KW at 250 degc, 10 KW at 20 deg c, 6 KW at (-) 20 deg c. control mode jacket and process control, medium temperature accuracy +/- 0.5 deg c, material temperature accuracy +/- 1 deg c. Circulation pump flow rate (L/min) 60, pump flow pressure (bar) 1.2. Safety alarms and interlocks – High temperature protection, compressor high pressure protection, compressor low pressure protection, cooling water failure protection, pump current overload protection, compressor current overload protection, sensor diagnosis, Cooling water requirement at 20 deg c, 2600 L/Hr, 1.5 to 4 bar. **Precise temperature control of process material should be within (+) / (-) 1 deg c. Space available /provided within 1Meter X 1Meter X 2Meter (H). Precise temperature control of machine outlet temperature shall be within +/- 1 deg c. Machine enclosure should be fully closed type to ensure trouble free operation in corrosive environment.**	**1 no.**
24	Heating circulator, Room temperature (RT)+10 deg c to 300 deg c, water cooled, with secondary cooling, 38 KW, circulation pump flow rate (L/min) 200, Pump flow pressure (bar) 2.5. Heating power KW 38, circulation pump flow rate (L/min) 200, Pump flow pressure bar 2.5, cooling capacity at 200 deg c -38 KW, cooling capacity at 100 deg c -30 KW, Cooling capacity 65 deg c (KW) 12. Safety alarms and interlocks – High temperature protection, cooling water failure protection, Pump current overload protection, compressor current overload protection, sensor diagnosis. Utility oil connection -DN40. Cooling water requirement Dn50 @ 30deg c, 18 m3/h, 1.5 to 4 bar. **Precise temperature control of process material should be within (+) / (-) 1 deg c. Space available /provided within 1Meter X 1.5Meter X 2Meter (H). Precise temperature control of machine outlet temperature shall be within +/- 1 deg c. Machine enclosure should be fully closed type to ensure trouble free operation in corrosive environment.**	**1 no.**
25	Thermic oil (-) 45 deg c to 250 deg c, material Silicon oil (No synthetic oil will be accepted). Specific gravity – 0.953, Pour point < minus 70 deg c, Fire point > 290 deg c, Kinematic viscosity @ 25 deg c 20 mm2 * S-1, Thermal conductivity 0.14 W.K.m-1.	200L
26	Thermic oil RT to 300 deg c. material Silicon oil (No synthetic oil will be accepted). Specific gravity – 0.963, Pour point < minus 55 deg c, Fire point > 350 deg c, Kinematic viscosity @ 25 deg c 50 mm2 * S-1, Thermal conductivity 0.15 W.K.m-1.	400L
27	Cooling tower FRP, FRP moulded counter flow, total capacity 160 TR, total water flow 97 CMH. Applicable test code ATC 105. Number of cells-1 , Number of cooling towers -1,	**1 no.**

28	Electrically heated boiler, non IBR, low watt density flanged in colony electric heaters. Shell type boiler design. Skid mounted fully assembled. Electric heater capacity 65 KW. Steam output F&A 100 deg c 100 kg/hr, design /working pressure 7kg/cm2 maximum. Saturated steam pressure 169 deg c maximum. Thermal efficiency 98+/- 2%.	**1 no.**
29	Brine chiller cooling only temperature range (-) 15 deg c to Room temperature (RT) cooling only, circulation pump flow rate 120 L/min, pump flow pressure (bar) 2.5 , cooling capacity 35 KW (10 TR) at (-) 15 deg c with all safety alarms and interlocks- High pressure protection , compressor high pressure protection, compressor low pressure protection, cooling water failure protection, pump current overload protection, compressor current overload protection , sensor diagnosis.	**1 no.**
30	Nitrogen gas generator, with air dryer timer based operation, N2 purifier to remove O2 and all other unwanted impurities and produces N2 upto evaporator grade serge receiver with pressure regulator and valve inbuilt, 21 NM3/hr at 6 bar. Method of Purification Pressure swing adsorption technologies. PSA and depressurization valves: PLC based pneumatic 2 way. Nitrogen purity 99.9%, delivery pressure 6 bar, outlet connection ½". Nitrogen gas generator shall be based on pressure swing adsorption (PSA) technology with 2 columns of molecular sieve absorber. The 2 columns shall operate alternately in adsorption and desorption cycle to produce a continuous supply of 99.9% pure grade Nitrogen. Nitrogen storage tank 1000L, MS powder coated. Rotary silenced screw compressor capacity (FAD) in CFM at normal working pressure 66 CFM, maximum working pressure in Kg/cm2 or Bar G: 8 bar G. Sound level not more than 71 db(A).	**1no.**
31	Reputed make air compressor, oil injected rotary screw air compressor with refrigeration air dryer , pre filter and air receiver tank , motor 15 HP, FAD 52 cfm, 88 m3/hr, 10 bar pressure	**1 no.**
32	Vacuum pumps dry , 0.5 Torr dry screw type of reputed make 200 m3/hr	**1 no.**
33	Two stage water ring vacuum pump , 81 m3/hr , plate heat exchanger , water separator cum recirculation tank, piping and valves ,Y type strainer, temperature gauge vacuum gauge , complete skid mounted	**2 nos.**
34	Vent -scrubbing system : 3 stage scrubbing system , falling film type, packed bed , and venturi scrubber with negative draft , re-circulation tank , recirculation pump, interconnecting piping and valves , skid mounted.	**1 no.**

35	**Purified water plant –RO TDS, 50 ppm inlet, TDS below 1 ppm outlet, 500 LPH with 2 KL storage tank with SCADA and PC: -** **GENERAL FEATURES:** • Ultra pure water with less than TDS 1 ppm • Plant capacity -500 Litres/Hr • Microprocessor/microcontroller controlled Dual stage RO water system • There should be microprocessor-based emergency operation option available in case of electronic failure; both stages should be capable of working independently to produce quality water if one stage fails. • The complete system should be fully programmable. • Should be able to provide water quality that has TDS of less than 1 ppm. • System Should be compact Microprocessor based Control Panel Interfaced for online monitoring of reject, feed, permeate flow, pure water conductivity, and yield on screen display. • RO Unit should have fully integrated, compact design and Housing mounted system with wheels, housing membrane, high pressure pump and bypass mechanism. • Should have fully automatic chemical disinfection & decalcification system. • Should have internal leakage sensors & System should have detailed error reporting alarms buzzer and Red highlighted warning notification against low feed water, low reject water, high output conductivity and high pressure. • Appropriate device certification ISO 13485 for the quoted product from Accredited by QCI of India (NABCB). Committee will verify all asked certificates during evaluation and if found the submitted certificate incorrect or wrong, such bid will be rejected right away. • Product should be Zero Defect Zero Effect ZED Certified (silver or higher) • Bidder has to submit all certificates with tender Document. In absence of the above asked certificate or bidder fail to present the	**1No.**

	asked certificate then offer of such bidder will be ignored; further no representation will be entertained. **PRE-TREATMENT MODULE:** • Raw water mesh filtering size 50 microns to prevent big dust/sand particles with back wash control. • Raw water booster pumps (Stainless Steel 304) with capacity of 3000 LPH. • Micron particle filter after booster pumps for removing suspended particles more than 20- micron size. • Sand Filter with sand particles of different grade & should have fully automatic backwash & rinse cycles every day. • Activated Carbon filter to remove Chlorine and Chloramines with sample valve. It should have fine carbon granules should have fully automatic backwash cycle & rinse cycle every day. • Micron particle filter after activated Carbon filter for removing suspended particles more than 5- micron size. • All pre-treatment modules should have programmable back wash and regeneration facility. • Pressure monitoring facility of all filtering stages. • Sample valve facility for all filtering stages. **RO UNIT FOR MAIN TREATMENT:** • In built capabilities to show on display for Permeate (Supply in liter/min) & for Raw Water Consumption in Liters/min & Pressure). • Alarms against low feed water, high output conductivity and high temperature of pump motor. • Unused water feedback facility to RO unit for saving on water injection. • The unit should be programmable and automatic rinsing /flushing facility at regular intervals when system is not in use. • Emergency mode operation to run permeates output in case of electronic failure.	

RO MEMBRANE:

- Efficiency of unit with maximum saving of water 50% to 75% (dynamic) of overall RO Plant, cumulative efficiency of Stage 1 & 2.
- There should be cross flow mechanism across the membranes.
- Sample valves for permeate should be provided.

POST TREATMENT:

Appropriate Demineralization plant should be provided to make sure that conductivity requirement is fulfilled.

USER INTERFACE:

- Digital display of values of Conductivity/ permeable flow / reject flow.
- Large touch button displays for easy to operation of user.
- CERTIFICATIONS & REPORTS:
- Output water quality should match AAMI/ISO standards at all times.
- Product certification EU-CE/appropriate device certification like QMS ISO 13485 accredited by NABCB.
- Tender should be submitted with full quality assurance certificate (EC/ISO)
- Supplier to perform installation, safety and operation checks before handover.

MAINTAINENCE AND SERVICE:

Bidder must provide on-site training personnel. The training should be comprehensive covering basic working aspects plus machine trouble shooting aspects and it should be conducted by full- time qualified trainers who should also issue a certificate to personnel at the end of training.

A Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist and tests must be provided according to guidelines and manufacturer recommendation. The job description of the NIPER-Hyderabad technician and company service engineer should be clearly spelt out.

	After-sales service should be available on 24 hrs x 7 days x 365 days basis. Complaint should be attended properly maximum within 48 hrs with 95% uptime guaranty. Downtime of less than 24 hrs allowed at a stretch. The service provider should have the necessary equipment/ parts/consumables recommended by the Manufacturer to carry out preventive maintenance/repair break down. **ESSENTIAL CRITERIA:** Manufacturing and its authorized reseller company should have an installation base of sufficient number and capacity of RO systems in India. Only those vendors with at least 5 - 7 RO System in India in which at least 25% of them should be of 500 liter capacity or more will be considered for eligibility. The bidder must submit at least five-year performance certificates from hospitals/institutions where a similar RO plant has been installed. **ADDITIONAL FEATURES:** Bidder should ensure TDS of less than 1 in final product water at all times. Should have dynamic water-saving technology and rinsing system. System should operate in 3 phase supply **Water output parameters: -** 1. TOC - < 500 ppb. 2. Total viable count cfu/ml < 100. 3. Conductivity - < 1.3 µs/cm. 4. pH – 5 – 7. 5. Pathogens – CFU/ml- NiL **HEAT DISINFECTION** Fully automatic volume-controlled heat disinfection of permeate loop complied with ISO 15883. Purified water circulation and ports: 1. Reactor area- 3 2. Crystallization area- 1 3. Wash area -1 4. Dryer Room -1 5. Janitor area-1 6. Milling and sifting room -1 Approx length of pipe 75 meters supply and 75 meters return line 75 meters Electro-polished SS316L pipes with orbital welding joints and fittings.	
36	Air cooled condensing units- Supply and Installation of Air Cooled condensing units with Scroll compressor with R410 refrigerant 5.5 TR 3nos. This will include supply and installation of hard copper piping, supply and installation of insulation tube, couplings, bends, copper pipes. Supply and installation of expansion valves suitable for air cooled condensing unit, supply and installation of temperature control unit. Temperature 24 +/-2^{o}C inside and RH is not more than 60 in clean rooms.	**1 no.**

	Recirculation Air Handling units, Supply and Installation of Double Skin Recirculated Air Handling unit constructed out of 24 G GI powder coated sheet as outer skin and plain 24G GI Sheet as inner skin with 25 mm thick PUF section with Aluminium profile and comprising of following sections: Pre filter section with 10 Micron Filters, Cooling coil section with DX coils, Blower section with DIDW blower with non-flame proof motor, drive set and pulleys. Other accessories like Mixing Box, Common base frame with vibration isolator pads, suitable inspection doors for filter coil and blower sections to be provided. AHU-1, 11 TR 2800 CFM- 1no, (FLP) 130mm SP & AHU-2, 5.5 TR- 1 No, 1200 CFM 130 mmSP, Ventilation Air Handling unit, Supply and installation of single skin once through air handling unit constructed out of 18 G GI powder coated sheet as outer skin comprising of following sections : Pre filter section with 20 & 10 micron filter (Combined filter) , Blower section with DIDW backward curved boiler with motor, drive set and pulleys , other accessories like supply, air dampener, common base frame with vibration isolator pads, suitable inspection doors, for filter and blower section are provided with VAU capacities and other details as follows :- VS-1 capacity 2500 CFM 125 mm SP, (FLP motor) VS-2 capacity 12000 CFM 90 mmSP (FLP motor). Exhaust Air Handling units for ventilation exhausts Supply and installation of Single skin 18 G GI powder coated sheet with 1.6 mm thk aluminium profile construction exhaust air handling units complete with forward curved fan section, fan motor drive, motor with 20-micron filter, with anti-vibration mounts, EAU capacities and other details as follows:- VE-1, capacity 2500 CFM, 60 mm S.P. FLP motor VE-2, capacity 1200 CFM, 60 mm S.P. FLP motor Exhaust Air Handling units for AHU-2 Supply and installation of double skin wash exhaust air handling unit constructed out of 24 G GI powder coated sheet as outer skin and plain 24 G GI sheet as inner skin with PUF section and aluminium profile and comprising of following sections: Pre filter section with 20-micron filter, blower section with DIDW blower with non-flame proof motor, drive set and pulleys. Common base frame with vibration isolator pads, suitable inspection doors for filter sections to be provided. AHUE (Wash room)-2 Capacity: 500 CFM, 50 mm S.P. Supply and installation of ducting made out of ducting made out of GI sheet as per IS 277 standards with proper rubber gasketing, GI supports, threaded rods etc (24 Guage & 22 Guage) 15000 sqft. Supply and installation of class O cross linked polyurethane insulation with aluminium foil with adhesive 13 mm thick for supply air 9 mm thick for return air 6000 sqft. Supply and installation of 20G riser modules. 10 nos. HEPA modules class 100000 area, Supply installation of supply air module made out of powder coated 18G GI construction with filter fixing and Gear type arrangement for operating volume control damper controlling air flow balancing. The module shall be complete with PAO port for filter integrity test, HEPA filter fixing arrangement without HEPA filters. HEPA Filters- Class 100000 area. Supply and installation of HEPA filters (conventional type EU-13) of efficiency 99.97% down to 0.3 micron with extruded aluminium casing with food grade neoprene gasket on sides all around the bottom face and top face (20 nos.) Grills and Dampers, Fire Dampers, doors, wall panels, ceiling panels, coving etc.	

	Process Pumps	
37	Process Pumps- Magnetic 2m3/hr , 20 meter head- 3 nos. (FLP) PVDF with suitable IE3 motors	**1 set.**
38	Process Pumps- Magnetic 2m3/hr , 20 meter head- 3 nos. (FLP) SS316L with suitable IE3 motors	**1 set.**
	Utility Pumps	
39	Centrifugal Pump- CS-32 cum (Q), 35 M Head- 2nos. (Reputed make) with suitable IE3 motors	**1 set**
40	Centrifugal Pump- CS-24 cum (Q), 20 M Head- 2nos. (Reputed make) with suitable IE3 motors	**1 set**
41	Centrifugal Pump- CS-24 cum (Q), 35 M Head- 2nos. (Reputed make) with suitable IE3 motors	**1 set**
42	Centrifugal Pump- CS-10 cum (Q), 20 M Head- 2nos. (Reputed make) with suitable IE3 motors	**1 set**
43	Centrifugal Pump- CS-10 cum (Q), 35 M Head- 2nos. (Reputed make) with suitable IE3 motors	**1 set**
44	Dump tank SS316L 1000L – 1No.	**1 no.**
45	**Lighting-** 1**.** Reactor area no. of lighting fixtures – 13, 2.crystallizer room no. of lighting fixtures- 6, 3. Air lock no. of lighting fixtures- 2, 4. Change room no. of lighting fixtures-2, 5. Drying room no. of lighting fixtures-4, 6. Air lock no of lighting fixtures-1, 7. wash area no of lighting fixtures-1, 8. Milling and sifting room no. of lighting fixtures-5, 9. Packing and quarantine no of lighting fixtures-2, 10. PM IN no of lighting fixtures -1, 11. FG out no. of lighting fixtures 1, 12. Corridor no of lighting fixtures-4, 13. Janitor room no. of lighting fixtures-2, 14. Air lock no. of lighting fixtures-2, 15. Change room no. of lighting fixtures- 2, 16. Air lock no. of lighting fixtures- 2. Serial No. 1 & 2- 2 X 42 W FLP bulk head fittings. Serial No. 3,4, 13 to 16 10 W CFL Light fittings. Serial No. 5 to 12 18 W CFL light fitings. On Off Push Buttons FLP 25 Nos. Reactor lamps 15 Nos. Suitable cabling and manpower	**1 no.**
46	**Fire Fighting system-** **1. 150 MM DIA MS C CLASS PIPE- 125 RMT.** Supply Installation Testing and commissioning of MS ''C'' class pipes for above ground piping for exposed piping painting with a coat of red-oxide and two coats of enamel paint of post office red colour or with colour as specified by consultant including necessary couplers flanged joints reducers bends tees orifice plates MS tapers special bolts nuts gaskets including consumables etc. The work shall include pressure testing the joints / pipeline for 10 kg/sq.cm hydraulic pressure for 2 hours etc for welding joints. **2. 80 MM DIA MS "C"CLASS PIPE- 6 RMT** Supply Installation Testing and commissioning of MS ''C'' class pipes for above ground piping for exposed piping painting with a coat of red-oxide and two coats of enamel paint of post office red colour or with colour as specified by consultant including necessary couplers flanged joints reducers bends tees orifice plates MS tapers special bolts nuts gaskets including consumables etc The work shall include pressure testing the joints / pipeline for 10 kg/sq.cm hydraulic pressure for 2 hours etc for welding joints. **3. SINGLE HYDRANT VALVES- 3 Nos.**	**1 no.**

	Supply Installation Testing and commissioning of 63mm dia instantaneous pattern oblique single headed hydrant valve with gun metal cap GI chain twist release type lug. **4. CP HOSE CABINET-3 Nos.** Supply Installation Testing and commissioning of 63mm dia size CP hose of 15 Mtrs with gunmetal female instantaneous coupling and hoses shall be stored inside the hose cabinet. **5. M S HOSE CABINET STAND MOUNTED-3 NOS.** Supply Installation Testing and commissioning of M.S Hose cabinet stand mounted type fabricated out of M.S. sheet of 22swg with glass fronted (4mm thick glass with rubber beading) door and size of the cabinet shall be 600mm x 600mm x 250mm quoted rate shall be includes suitable stand for mounting all fasteners etc and cabinet shall be powder coated of approved colour both inside and outside. **6. GUN METAL BRANCH PIPE- 3 NOS.** Installation Testing and commissioning of one set of Gun metal branch pipe and nozzle with valve. **7. FIRST AID HOSE REEL- 3 NOS.** Supply Installation Testing and commissioning of first Aid hose reel with 30 m length fitted with 6.35 mm nozzle The hose real shall be recessed swinging type with real drum hose shall be provided with coupling as per detailed specification. **8. 150 MM CI BUTTERFLY VALVES-4 NOS.** Supply Installation Testing and commissioning of CI butterfly valves (PN 16) standard lever operated type confirming to IS Standard with required flanges nuts bolts etc. complete. **9. 80 MM CI BUTTERFLY VALVES-4 NOS.** Supply Installation Testing and commissioning of CI butterfly valves (PN 16) standard lever operated type confirming to IS Standard with required flanges nuts bolts etc. complete **10. PRESSURE GAUGE- 4 NOS.** Supply Installation Testing and commissioning of Instrumentation Bourdon type pressure gauges for pumps in delivery line and common delivery header **11. 25 MM BALL VALVE- 6 NOS.** Supply Installation Testing and commissioning of 25mm Ball valve. **12. WATER MONITORS- 4 NOS.** Supply Installation Testing and commissioning of Water Monitors **13. 150 MM CI BUTTERFLY VALVES- 4 NOS.** Installation Testing and commissioning of CI butterfly valves (PN 16) standard lever operated type confirming to IS Standard with required flanges nuts bolts etc. **14. 150 MM CI NON RETURN VALVES- 4 NOS.** Supply Installation Testing and commissioning of C.I. Non-return valves as per IS:5312 swing check type with required flanges nuts bolts and gaskets etc complete. **15. MS SUPPORTS- 150 KGS** Supply Installation of MS Supports for Raiser system with one coat red oxide and 2 coats of Black enamel paint **16. FIRE ALARM CONTROL PANEL -4 NOS.**	

	Supply Installation Testing and commissioning of conventional fire alarm control panel and their accessories (2 ZONE) **17. HOOTER- 1 NO.** Supply Installation Testing and commissioning of conventional Hooter with all accessories and materials **18. MANUAL CALL POINTS- 1 NO.** Supply Installation Testing and commissioning of conventional type Manual call point suitable to conventional fire alarm panel. with all accessories and materials **19. SMOKE DETECTORS- 6 NOS.** Supply Installation Testing and commissioning of Smoke Detectors **20. M FOAM CARTRIDGES 9 LTS – 3 NOS.** **21. MECHANICAL FOAM 50 LTS- 1 NOS.** **22. FIRE EXTINGUISHER ABC POWDER TYPE 4 KGS** **23. CARBON DIOXIDE 9 KGS -2 NOS.** **24. BUCKET STAND WITH 4 FIRE BUCKETS – 3 NOS.**	
47	Data logger with FLP panel. LCD Display 160 X 80 mm, 230 V, 50 Hz, Input PT 100, Thermocouple J,K, , DC Volts : 0 to 10 V, 0 to 5 V, DC current 0-20mA, 4-20 mA, Recording capacity, memory 2 GB Flash memory, SUB interface, USB2.0, format FAT, socket type A.	**1 no.**
48	Hot water system- 30,000 Kcal/hr, 100L MS make up tank with accessories, FLP electrical heater – 40 KW (Thyristor control), Multiloop controller (MLC41), NFLP MCC+ Thyristor panel, insulation (LRB+ AL cladding), documentation, commissioning, and transportation.	**1 no.**
49	DG set 125 KVA auto on of a reputed make-A) Diesel Engine: - Reputed 125 KVA CPCB IV+ Prime Power Silent Diesel Generator Set Microprocessor Controller, Fuel Tank, Battery and other Standard Accessories as per technical specification. 200 Amps. Auto Transfer Switch Panel (ATS) Reputed make Diesel Engine, Six Cylinders in line configuration, Liquid Cooled, Turbo Charged &Intercooled, Heavy duty Prime Power Suitable for Generating Set application, developing 155bhp @ 1500 RPM, under NTP conditions with an overload capacity of 10 % for any one hour in any 12 hrs. Diesel Engine will be as per the CPCB norms. Vertical totally enclosed, electric start, compression ignition, 4 stroke, designed to run continuously at 1500 RPM confirming to IS 10002, ISO-3046, BS 5514, Standard Complete with * Radiator with fan. * Flywheel for suit flexible coupling with starter ring * Fuel pump with CRDI Technology * Dry type air cleaner * Exhaust Silencer Residential Type * Lube Oil filter * Fuel Oil filter * 12V Electric starting system * Battery charging alternator * Engine control panel consisting of ON / OFF START Key * First Fill of Lube oil. * Safeties: As Per Microprocessor Controller B) Alternator: - 125Kva/100kw Alternator, suitable for continuous operation rated at 1500 rpm 415 V, 0.8 PF, 50Hz, Three Phase in SPDP enclosure, self- excited & self-regulated, Brushless, floor mounted with Ball or Bearings on end shields. The	**1 no.**

	alternator conforms to IS: 4722/BS/2613 & will be suitable for tropical condition. C) AMF Logic Control Panel: - Control panel is 16 / 14-gauge sheet steel fabricated, dust & Vermin proof & will be complete with internal wiring. The following Protection / Control / Display / Annunciation features are provided for the DG set. * MCCB of adequate rating * Indicating lamps for DG ON & LOAD ON. * Key switch * Set of Current transformers * Set of control fuses * Automatic Battery Charger * Micro-processor based Integrated DG set Controller with built-in Remote Auto START / STOP facility mounted in the fascia of the control panel with a large LCD display panel with the following continuous scrolling features D) Base Frame: - Suitable to Closed couple for above Engine & Alternator. E) Fuel Tank: - 8 Hrs Capacity, with Inlet & Outlet arrangement with air vent & drain plug arrangement. F) Battery: - Exide/ equivalent Make 12 V with Leads and Battery Cable.	
50	Supporting Steel Structure- SS304 (Platform, railing, ladder) for all reactors except AGR.	**1 no.**
51	Power cable, cable tray, connectors and other electrical accessories for the complete project (within the seller's battery limit). The quantities to be worked out as per the site requirements.	**1 no.**
52	a) N2 line b) Vacuum line c) Compressed air line d) Hot water line e) Chilled water line f) PPFRP scrubber pipeline g) Raw water line to water purifier etc of suitable length. The project requirements are to be met as per the site requirements. Service manifolds are to be provided where ever required.	**1 no.**
53	6 Tray Vacuum tray dryer with receiver and condenser, SS316L, with water ring vacuum pump of suitable capacity and 720 mm Hg vacuum.	**1 no.**

Note: At the time of commissioning, training should be given to technicians. For Cryogenic Reactors, attachment is required for reactors

Preferred make/brand for above items:

Sl. No.	Items	Preferred makes
1,2,3,4, 5	R-101, 1000L SS316L, R-102, 500L SS316L, R-104, 250L SS316L, R-106, 250L SS316L, R-107, 500L SS316L	ATR ASAHI Process Systems, Chemiplant Engineering Company,Mumbai, Steelcon Engineering LLP Ankleshwar, XytelIndia, Standard
6	R-103, 250L MSGL, Pre-insulated Jacketed MS Glass Linedreactor bottom Pan with SS cladding including bottom outlet valve.	GMM Pfaudler Ltd Mumbai, HLE Glasscoat Ltd Navsari, Standard Glass Lining Technology Pvt Ltd.
7,8	Glass distillation assembly-reactor should be triple wall-100L, 50L	ATR ASAHI Process Systems P Ltd, De Dietrich Process Systems, Ablaze glass works, Goel Scientific
9	Centrifuge-24" with Halar	ACE Industries India Pvt Ltd Mumbai, D Parikh, Sukhras

10,11	ANFD (Intermediate drying)-500L,300L, SS316L	Chemiplant Engineering Company, Promas Engineers Pvt Ltd, Rajyog Industries, Sachin Industries, HLE Glascoat
12,13	Roto Cone Vacuum Dryer (RCVD), 300L, SS316L	ACE Industries (INDIA) Pvt. Ltd, Chemiplant Engineering Company, Rajyog Industries, Sachin Industries
14	Sparkler filter 14" dia	ACE Industries (INDIA) Pvt. Ltd, IPEC Engineering Pvt. Ltd, Ankleshwar, Pharma Labs, Subodh engineering
15	Pressure Nutsch Filter- 100 liters, SS316 + Halar	Ace Industries (INDIA) Pvt. Ltd, Kumar Process Consultants and Chemicals Pvt. Ltd (Filters), Schematic Engineering Industries, Acme Process Systems Pvt. Ltd.
16,17	Vibro shifter 24". Model GMP, contact parts SS316L, FLP motor	Ace Industries (INDIA) Pvt. Ltd, Shree Bhagawati Machtech (India) Pvt. Ltd, Mill Power Private Limited, Tapasya engineering
18,19	Multi mill 1 HP motor GMP model, contact parts SS316L, FLP motor	Ace Industries (INDIA) Pvt. Ltd, Shree Bhagawati Machtech (India) Pvt. Ltd, Mill Power Private Limited, Tapasya engineering
20,21	MSGL Receiver 500L for all reactors common addition	GMM Pfaudler Ltd Mumbai, HLE Glasscoat Ltd Navsari, Standard Glass lining Technology Pvt Ltd.,
22	Blender with multi product basket- Octagonal blender 200 Ltrs	Ace Industries (INDIA) Pvt. Ltd, Shree Bhagawati Machtech (India) Pvt. Ltd, Adinath International, Pharma Basics
23,24	TCU, Heating Circulator	E3Tech Systems and Services LLP, Huber Process Control Systems India Pvt. Ltd, Julabo GmBH, Lauda Scientific
25,26	Thermic oils	Any Reputed MAKE
27	Cooling tower	M Square Nexus Private Limited, ARTECH Cooling Towers Pvt. Ltd, Paharpur Cooling Towers, R. K. Aircon Industries
28	Electrically heated boiler	Ross Boilers, Utech Projects Pvt. Ltd, Thermax, Cheema boilers limited
29	Brine chiller	E3Tech Systems and Services LLP, Huber Process Control Systems India Pvt. Ltd, Julabo GmBH, Lauda Scientific
30	Nitrogen gas generator	Athena Technology, Gastek Engineering (P) Ltd, PSA Nitrogen Ltd, Parker Domnick Hunter, NoxAir Engineering Pvt Ltd., Nuberg Engineering Ltd.,
31	Air compressor	Chicago Pneumatic, ELGI, Ingersoll Rand
32	Vacuum Pump dry screw type	Techman India Private Limited, Atlas Copco, PPI, Edwards India Pvt Ltd., JB Sawant Engineering Pvt Ltd.,
33	Two stage water ring vacuum pumps	Techman India Private Limited, Atlas Copco, Joyam, Mazda Ltd.,
34	Vent Scrubbing system	ATR ASAHI or equivalent reputed brand
35	Purified water plant -RO	NAV Products Vadodara, Merch Life Sciences Private Limited, Watermass Systems Private Limited

36	AHUs and Clean room accessories such as panels, windows, doors, view panels, ceiling panels, wall panels, coving, pass boxes, cross over bench, cupboards (HVAC) etc.	Laminaire Systems, Kaizen, Versatile Systems
37,38	Process Pumps magnetic	Taha Pumps and Valves Surendranagar, Crest Pumps UK,
39,40,41,42,43	Centrifugal Pumps-CS	KSB, KBL, Shakti Pumps, Lubi Pumps,
44	Dump tank	ATR ASAHI Process Systems, Chemiplant Engineering Company,Mumbai, Steelcon Engineering LLP Ankleshwar, XytelIndia, Standard
45	Lighting	Sudheer, FCG, Baliga
46	Fire Fighting Systems	Vashishtha Systems Hyderabad, Basic Elements, Dhana Fire Safety Systems.
47	Data Logger with FLP Panel	PPI India, Jumo India, Rishabh Instruments, Polmon Instruments Private Limited
48	Hot water systems	Polmon Instruments Private Limited Hyderabad, HRS Process Systems, Ved Engineering
49	DG set 125 KVA	Cummins, Eicher, KOEL, Ashok Leyland, Mahindra
50	Support Steel structure	Any reputed make
51	Power cable, Electrical switch gears	Polycab, RR Cables, Lapp India, Schneider Electric India Pvt Ltd, Siemens/ABB
52	a) N2 line b) Vacuum line c) Compressed air line d) Hot water line e) Chilled brine line f) PPFRP scrubber pipeline g) Raw water line to water purifier h) Cooling tower water line etc	Material should be MS "C" class Any reputed make
53	GMP 6 Tray VTD	ACE Industries (India) Pvt. Ltd, Lodha Pharma, Ravi International, Shree Bhagwati Machtech (India) Pvt Ltd, SVS Engineering Pvt Ltd., RR engineering

NOTE: All above-mentioned makes must meet the Class 1/Class 2 requirements of 'Procurement Policy'. Bidder must attach the relevant document proof as necessitated in Public Procurement (Preference to Make in India) Order, 2017 which is amended from time to time, indicating the offered brand and HSN code and other information as mentioned in the order.

Against the point no.51 in the GeM tender document, MCC panel should be supplied along with the items mentioned.

The suppliers have to follow the architectural drawings mentioned in Annexure 'A'.

Training should be provided to atleast three persons from the user department.

Penalty will be levied on the value of the items that are delayed in supply and installation and not on the entire PO value.

Annexure-II

Manufacturer's Authorization Form

To
The Director
National Institute of Pharmaceutical Educational Research (NIPER)-Hyderabad,
NH 9, Balanagar Main Rd, Kukatpally Industrial Estate,
Hyderabad, Telangana 500037

Ref: Enquiry:

We, ……., who are proven and reputable Manufacturer/exclusive distributors of …… (Name and description of the goods offered in the Bid) having factories/office at …… hereby authorize M/s …….. (name and address of the agent) to submit a Bid, against your requirement as contained in the above referred Bidding Documents for the above goods manufactured/ distributed by us. We further confirm that no supplier or firm or individual other than M/s. (name and address of the above agent) is authorized to submit a Bid, against your requirement as contained in the above referred Bidding Documents for the above goods manufactured by us.

In case the above is challenge / proved to be false at a later date we will be held personally responsible, and we are fully aware of consequences.

We also hereby extend our full warranty of _____from acceptance of goods by Purchaser as per General Terms & Conditions. We further confirm that we shall continue to supply spare parts, for ____ years after guarantee/warranty.

Yours faithfully,

[Signature with date, name and designation]
For and on behalf of M/s. [Name & address of the manufacturers].

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

Annexure-III

OEM Form
(To be printed on Company's Letter Head)

To
The Director
National Institute of Pharmaceutical Educational Research (NIPER)-Hyderabad,
NH 9, Balanagar Main Rd, Kukatpally Industrial Estate,
Hyderabad, Telangana 500037

Ref: Enquiry:

We, ……..who are proven and reputable Manufacturer of …… (Name and description of the goods offered in the Bid) having factories/office at …… to submit a Bid, against your requirement as contained in the above referred Bidding Documents for the above goods manufactured by us. We further confirm that no supplier or firm or individual is authorized to submit a Bid, against your requirement as contained in the above-mentioned Bidding Documents for the above goods manufactured by us.

We also hereby extend our full warranty of _____from acceptance of goods by Purchaser as per Clause 6 of General Terms & Conditions of contract. We further confirm that we shall continue to supply spare parts, for 03 years after guarantee/warranty.

In case the above is challenge / proved to be false at a later date we will be held personally responsible and we are fully aware of consequences.

Yours faithfully,
[Signature with date, name and designation}

Format of the Integrity Pact

INTEGRITY PACT

Between

National Institute of Pharmaceutical Education and Research (NIPER)Hyderabad hereinafter referred to as"The Principal".

And

……herein referred to as "The Bidder/ Contractor."

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for ……The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/or Contractor(s).

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

Section 1 – Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:

(a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantagein relation to the tender process or the contract execution.

(c) The Principal will exclude from the process all known prejudiced persons.

(1) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action.

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

(1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

(a) The Bidder(s)/Contractor(s) will not, directly or through any other Person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/sheis not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

(b) The Bidder(s)/Contractor(s) will not enter with other Bidders into any Undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, Certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

(c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

(d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)//Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annexure.

(e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

(2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

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

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

Section 4 – Compensation for Damages

(1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

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

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from thetender process or action can be taken as per the procedure mentioned in "Guidelines on Banning ofbusiness dealings."

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

(1) The Bidder(s)/Contractor(s) undertake(s) to demand from all Subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.

(2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.

(3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

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

(1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Director, NIPER Hyderabad.

(3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The

Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same isapplicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s) / Contractor(s) / Subcontractor(s) with confidentiality.

(1) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor theoption to participate in such meetings.

(2) As soon as the Monitor notice, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(3) The Monitor will submit a written report to the Director, Hyderabad within 8 to 10 weeks from the date of reference or intimation to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.

(4) Monitor shall be entitled to compensation on the same terms as being extended to/provided to Director, NIPER Hyderabad.

(5) The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

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

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

Section 10 – Other provisions

(1) This agreement is subject to Indian Law.

(2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

(4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

_____

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

_____

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

Place……

..

Date……..

Witness 1:

(Name & Address): _____

_____

_____

Witness 2:

(Name & Address): _____