# EXPRESSION OF INTEREST FOR PACKAGED TYPE SEWAGE TREATMENT PLANT OF CAPACITY 75 KLD AT IISER MOHALI, SECTOR 81-SAS NAGAR, PUNJAB.

- 1.1 The Plants are for above ground installation having specifications and quantity as per the Annexure-A attached.
- 1.2 The Plants should be of Mild steel Construction of adequate strength, with FRP lining inside and Epoxy paint to approved colour outside.
- 1.3 The Plants should be capable of continuous operation or batch processing type operation and also suitable for operating on smaller loads and for shutting down and resuming operation after some time, if required.
- 2.1 The process should preferably be bacteria (or other organism) based for minimizing sludge production. The process should have the approval of Central Pollution Control Authorities.
- 2.2 The treated effluent should be suitable for re-cycling for use in flush Tanks and also for landscaping.
- 2.3 The Treated effluent should be free of colour and odour and should conform to the parameters laid down by the Central Pollution Control Authorities for re-cycling for the above uses.
- 2.4 The intending supplier should have similar type of plants installed and commissioned such type of plants of approximately capacity as 6.2 below or more and successfully operated the same (certificate of completion should be attached).
- 3.0 The Institute will provide the following:
- 3.1 Equalization Tank of recommended capacity.
- 3.2 Treated effluent storage tank.
- 3.3 Foundation platform for placing the plant, to suit the loading required.
- 3.4 Power supply as per requirement at a pillar box near the plant.
- 4.0 Other than the above all equipment electrical, mechanical, screens, filters and ladders and anything else required to make the plant complete and workable should all be part of the supply in the scope of the supplier.
- 5.0 Notwithstanding, the approvals of the Institute, the safety and serviceability of the plant is the sole responsibility of the suppliers.
- 6.0 The supplier should unconditionally indemnify the Institute from any legal proceeding by any persons or Body, National or International arising out of any patented process that may be employed in manufacture/supply by this equipment.
- 6.1 The supplier will get the test report with regard to the characteristics of the treated water approved/passed from the State Pollution Board and have to comply with other statutory norms, if required or deemed necessary for the smooth installation/operation of the Plant.
- 6.2 The supplier should have supplied and installed atleast one package type sewage treatment plant of capacity 60 KLD in Central or State Govt/Central or State PSU/Autonomous body.
- 7.0 After installation and Commissioning the supplier should undertake to maintain (including spares and consumables, if any) the plant for a period of 1 year, under warranty. During this one year Institute personnel should be trained by the supplier.

- 8.0 Expression of Interest should be submitted in the following manner:
- 8.1 <u>Cover A</u> should contain the Technical particulars of the plant like process, flow diagram physical sizes and weight of the plant, list of electrical and mechanical components, and any other details the supplier would like to include, like time required for installation and commissioning detail of similar plants installed by the supplier should be given along with the proof of having supply and installed one packaged type of plant of minimum capacity of 60 KLD as explained in para 6.2.
- 8.2 <u>Cover B</u> should contain the details of the financial offer [including all applicable taxes and levies). Supply and Erection commissioning to be quoted separately.
- 8.3 Price quoted should include Transport up to the erection site in the Institute campus including unloading, and also transit insurance along with the cost of the material as indicated in Annexure-A.
- 8.4 <u>Cover C</u> should contain the earnest money of Rs. 54,500/- in the form of demand draft in favour of Registrar, IISER Mohali, payable at Chandigarh.
- 8.5 All the 3 covers should be placed in our outer cover super scribed "Expression of Interest for 75 KLD packaged Sewage Treatment plant, so as to reach the undersigned on or before 3 pm on 24/11/2016"

#### 9. Method of selection:

- 9.1 The technical bids would be scrutinized and evaluated by a committee constituted by Director.
- 9.2 The technically qualified bidders would be invited to make a presentation to the committee and to discuss special conditions if any.
- 9.3 The committee will visit the site, if required, where the shortlisted vendors selected as an outcome of the presentation have installed the plant of similar capacity.
- 9.4 Based on the above the vendors will be finally selected for the purpose of opening of financial bids.
- 9.5 The Agency/contractor who is L-1 would be awarded the said work who should sign an agreement with the Institute and undertake the assignment immediately.
- 9.6 The Director IISER Mohali reserves the right to reject any or all the offers based on Technical Evaluation Report.
- 9.7 If the Financial offers of the successful applicant are considered by the Institute committee to be unreasonably high the Institute reserves the right to negotiate for the price to be reduced. If there is no agreement reached, the Institute reserves the right to cancel this invitation for Expression of Interest and decide further course of action by a fresh invitation or otherwise.

### 10. <u>General Conditions</u>:

- 10.0 Time for supply at the Institute's campus:12 weeks from the date of order.

  Performance guarantee: 5% of the quoted price to be furnished within 10 days of the placing of the order and must be valid for the time required for completing the work plus 60 days.
- 10.1 Security @ 5% will be deducted and will be released after completion of the defect liability period of one year from the date of handing over of the plant. Other taxes as applicable will be deducted.

#### 11. Dispute:

- 11.1 Any dispute arising out of this work would be referred to the sole Arbitrator to be appointed by the Director of the Institute.
- 11.2. If the dispute remains unresolved even after that, legal remedy may be sought, subject to the jurisdiction of the Local court Mohali

## LIST OF MACHANICAL & ELECTRICAL WORKS FOR 75 KLD PACKAGED STP

MACHANICAL			
Description	Make / Type	Specifications	Quantity
Bar Screen in SS construction	Coarse Bar	Coarse Screen SS-316	One No.
Submersible Sewage Transfer Pumps	Grundfos/ Kirloskar/KSB	Flowrate: 3.75 M <sup>3</sup> /hr to 5 M <sup>3</sup> /hr. Head: 10m to 15m. Phase: 3 Phase, Power: 1 Kw, Type: Submersible.	Two Nos (1W+1S)
Air Blower	Everest/Kay International /Usha	Airflow: 140 M <sup>3</sup> /hr, Type: Twinlobe, Presure: 0.35 Kg/ Cm <sup>2</sup> , RPM: 1500, Fliud Handled: Air	Two Nos (1W+1S)
Motor for Blower	Kirloskar/ Seimens/ ABB/ NGEF	Power: 5HP, Squirrel Cage Induction Motor, Foot Mounted, Phase: 3 Phase.	Two Nos (1W+1S)
Diffuser	OTT/ Rehaue (Germany)	Type: Tube, Membrane:Silicon, Size: 63 mm X 1000 mm, Ear Clamp: SS304	One Lot
Eco Bio Carrier Media	Surface area min. 500 m <sup>2</sup> /m <sup>3</sup>	Make: Aqurise/Anose Kaldness/ Small Boss	Required Quantity
Tube Settler	In House	FRP Baffle Tray in House with Media – Hunters Germany	One Lot
Filter Feed Pumps	Kirloskar	Model-KDS235+, Flowrate: 3.75 M <sup>3</sup> /hr to 5 M <sup>3</sup> /hr. Head: 20m to 25m, Phase: 3 Phase, Power: 1.5/2.0 Kw, 2800 RPM, Type: Monobloc	Two Nos (1W+1S)
Pressure sand filter with valves and media	Pentair/ Aventura	Type: Vertical, MOC: FRP, Type of media: Pebbles, Coarse sand and fine sand.	One No.
Activated carbon filter valves and media	Pentair/Aventura	Type: Vertical, MOC: FRP, Type of media: Activated Carbon	One No.
Electro Magnetic Flow Meter	Forbes/Marshall/ Endress Hauser	Flowrate: 2000 LPH to 50000 LPH	One No.
Interconnecting Piping, Valves &fittings	TATA/Jindal/Astar	PVC, CPVC, MS, GI, SS	One Lot
Electrical Control panel with cables	ABB/ L&T	In House	One No.
UV Sterilizer	Goodwin India/Grundfos/ Philips/Good Life	UV Bulbs Quartz: 39 Watts, No. of Bulbs: 3, Flowrate: 3500 LPH, MOC: SS307	One No.
Package Plant	MSFRP/ In House	MS Thickness: 6mm, FRP: 2.5mm, Paint: 2 Coats of epoxy paint, Port: MS Coupling required numbers.	One No.
Sludge Bag Filter	Techno Fungi/Eco-P	SS	One No.
Sludge Recirculation Pump	Kirloskar	3m <sup>3</sup> /hr, Head – 10 m	One No.
Aeration Grid for Equalization Tank	Tata/Jindal	MSEP	One lot
Coarse Diffuser	OTT/Rehaue	EPDM/Silicon	One lot
Air Grid for Bio Carrier	Tata/Jindal	MSEP	One lot
Filter Feed Tank	Syntax/Diplast	Capacity 2000 lt.	One no.
Pressure Guage	H. Guru	At Air Blowers and Pumps	As required
Level switches	Minilee	Inside tanks	As required

Note: The above list is only indicative. Any other component or system required to make the plant completely operational should be indicated by the supplier and included in the quotation.

To be quoted separately, if required, on the basis of rates quoted.

Submersible Sewage Transfer	Grundfos/ Kirloskar/KSB	Flowrate: 3.75 M <sup>3</sup> /hr to 5	Two Nos (1W+1S)
Pumps		M <sup>3</sup> /hr. Head: 10m to 15m.	
		Phase: 3 Phase, Power: 1 Kw,	
		Type: Submersible.	
Treated water pump	Kirloskar	Type-KDS-1555+, Head:	Two nos
		40m to 45m, Phase: 3 Phase,	
		size 80x65mm, 15 HP	