



(PROCUREMENT SECTION)

Foreign Enquiry

M/s.

Ref No:

AES - 11204

Date:

24.09.2013

Due Date:

17.10.2013

Dear Sir,

We require the following items for XXXIII Indian Antarctic Expedition. You are requested to send your offer for the following items as per the terms and conditions mentioned below.

SL. NO.	DESCRIPTION	QUANTITY
01	Supply of Containerized compact biological wastewater treatment system according to attached requirement and specifications at Annexure-I	1 No

Your offer should contain the following information:

1. Please submit your quotation on CIF basis upto IHC, Cape Town by Air/Sea should be indicated. The quotation should contain item wise prices, including total Ex-works price and cost of packing, forwarding, insurance and Air/Sea freight charges.
2. Delivery Period: (Material to be delivered at IHC, Cape Town, positively on 30TH December, 2013). Please confirm.
3. Validity of quotation:
4. Quantity/Trade discounts, if any. :
5. Guarantee/Warranty of the product:
6. Taxes applicable (VAT if any):
7. Specify Brand/Make/Model of the item:
8. Enclose brochure/leaflet – Specification:
9. **No advance payment** will be made. Payment by irrevocable letter of credit after supply and acceptance of the equipment by NCAOR. The payment will be authorized after submission of a Bank Guarantee for 10% value of the order towards warranty guarantee. The **Performance Bank Guarantee** should be furnished within 15 days from the date of placement of order from a reputed bank (scheduled bank in India **or** foreign bank .

Director, NCAOR reserves the right to reject any quotation received without assigning any reasons.

Also confirm that the “the rates quoted by you are reasonable and lowest charged to any of your customer”.

Yours faithfully,

Sd/-

**Executive (Procurement)
For and on behalf of Director, NCAOR**

Specification and Scope of Supply of Wastewater Treatment System

Biological treatment plant based on aerated submerged fixed film technology, is required to treat greywater which contains wastewater generated from kitchen, laundry and bathrooms, excluding wastewater generated from toilet. It should contain a complete treatment system install within standard 20'x8'x8' container, which should be insulated from inside to maintain the proper temperature within the container to maintain proper growth of bacteria, while outside temperature may reach below -35°C .

Inside temperature will be maintained using radiators which would be part of supply. All the electrical units should be installed using plug and play from outside of container to receive electricity, while front door remain completely closed. Complete system should be fully automated as well as manual control with proper space for maintenance and cleaning purpose.

System should be designed to treat organic load of round 2.75 kg/day (maximum) and hydraulic load of 6.5m³ / day (maximum) with TS of approximately 1100-1500 mg/l, oil and grease 6-10mg/l. Compact system should be made of stainless steel except few essential parts where steel can not be used. Influent to the inlet will be under gravity flow. It should consist, macerating pump, air diffuser, inlet tank, bioreactor, settling tank etc. Final effluent quality should meet BOD₅ - 25 mg/l, TSS 35 mg/l or latest IMO standard, whichever is stringent.

It should have auto mechanism to start/stop pump to regulate the flow to avoid short circuiting. There should be mechanism to clear sludge at regular interval. Ventilation system and outlet through container should be installed considering very low outside temperature and chances of snow accumulation through vent during blizzard.

Suitable oil and grease trap should also be installed prior of main system to prevent entry of grease into system. Effluent generated from treatment system should have mechanism to treat it further with advanced UV light to eradicate effluent from coli bacteria.

One complete unit should consist macerating pump, discharge pump, aerator, pressure / vacuum gauge, air pressure control, vacuumator, control cabinet, air compressor to work on 220 ± 20 V, meeting standards. Prior to delivery it complete system should be tested and test certificate should be given.

Spare parts and consumables including bacteria seed should be supplied to operate system for three years.

Manual: Two sets of complete operation and technical manual should be provided

Warranty: three years on all parts.