## TECHNICAL SPECIFICATION FOR TEMPERATURE-CONTROLLED INCINERATOR

A temperature-controlled incinerator (grate type) is required to process the agricultural/industrial wastes.

## **Required Features:**

- The grate incinerator should be fully automatic of controlled air & pyrolytic type.
- Design temperature for incinerator: 1300 °C
- Operating temperature: 950-1000 °C
- Material of construction should be Inconel.
- Incinerator capacity should be 20-25 kg/hour.
- Primary and secondary chambers should be separately controlled.
- Minimum of 3 temperature sensors should be provided within the furnace.
- The incinerator should be equipped with air flow rate measurement devices.
- Temperature controlled incineration must be allowed.
- Incinerator should have automatic waste feeding & dishing system so that there is no direct exposure of furnace atmosphere to the operator while charging.
- Emission treatment package (incl. filter, scrubber, and activated carbon adsorption to control the emissions) must be provided.
- All the equipment & components should be coated with 2 coats of epoxy heat-resistant paint.
- A software along with desktop and laptop should be included to monitor and control
  the various parameters of the incineration system to ensure compatibility and
  preloaded software.
- Power input voltage 230V AC, 50 Hz.

## **GENERAL TERMS AND CONDITIONS**

- The supplier/vendor must be an original equipment manufacturer or an authorized agent/dealer/seller of the item.
- Vendor should physically present a sample at IIT Madras for quality inspection, if required
- The system should be delivered within 14-16 weeks from the opening of the letter of credit or issue of the purchase order, whichever is later.
- Costs and related information should be given only in the financial bid.

- The cost should include 24 months warranty of the overall system and CIF up to Chennai.
- Optional additional warranty for another 12 months should be quoted separately
- The warranty shall commence only from the date of equipment installation at IITM.
- Prices quoted should be valid for at least 90 days.
- Item-wise break up of cost should be provided in the commercial bid for optional items and accessories.
- IIT Madras reserves the right to exclude some items from the purchase. The payment conditions consist of 90% LC at site and 10% after installation and satisfactory training.
- The system should be installed and commissioned with no additional cost
- Training at IIT Madras should be provided with no additional cost.
- Two copies of the system manual should be provided in CD form.

## **Technical Bid should comprise of the following:**

- Detailed Technical brochure.
- Detailed technical write up explaining how each of the Technical Specifications are complied with
- The list of multiple Institutions/R&D units/Industry where similar installations have been supplied in India/abroad including contact details (name of the person in-charge, email, and phone number) is to be provided
- The vendor should guarantee round the clock technical support not only during the warranty period but even beyond through an annual maintenance contract.

  Demonstration of having provided such satisfactory technical support to customers shall be enclosed with the technical bid.