#### Amendment -IX dated 09.05.2016

IFB: HSCC/KCGMC/Medical Equipment /2015-03/A dated 23.02.2016

All Bidders are requested to note the following:

1. Item: 01, Heamodialysis machine: RO plant technical specification as mentioned below incorporated:

### Technical Specifications for RO/Water treatment System

# **Description of Function SI Description**

- · Water Treatment systems is required to produce pure water of AAMI Standard for dialysis.
- · It should be CE Certified.
- · The RO Unit should include frame (coated steel frame), piping (PVC/PA), membrane -housing (fiber glass), and high pressure pump.

# **Operational Requirement:**

• The system should be sufficient for online operation of dialysis machines with pure water capacity of 250 Liters to 500 liters per hour.

# **Technical Specifications:**

- The system should comprise of pre-treatment modules such as Particle filter, activated carbon filter, and dual water softener, 5 micron particulate filter before the reverse osmosis unit and UV light Disinfection for yielding high purity water.
- · Automation controlled RAW water tank of 750 Liter Food Grade HDPE, and RAW water pump should be there in order to protect RAW water pump from Dry run condition.
- · R.O. Unit should be compact, housing membrane and high pressure pump and bypass mechanism. The RO unit should be of stainless steel/Powder coated. The control unit should be microprocessor/Microcontroller controlled. The Key features of RO Should as bellow:
- · Operation
  - By key pad and backlit LCD-Display
  - Operation and service menu (pass word)
  - Alarm message display
  - Storage tank control

# · Audio visual-alarms

- Permeate conductivity
- Excess Temperature
- Low inlet pressure, automatic shut down
- When water flow is interrupted.

# Monitoring

- Permeate conductivity
- Permeate temperature
- Permeate flow
- Concentrate flow

#### Amendment -IX dated 09.05.2016

IFB: HSCC/KCGMC/Medical Equipment /2015-03/A dated 23.02.2016

#### Process engineering

- Water saving technology
- Polyamide membranes
- Interval auto flush

#### · Environmental factors:

**Operating Parameters** 

Permeate Capacity: 250 LPH to 500 LPH (25 °C raw water input)

Standard Recovery: 50 -70%

Salt rejection: < 99 %

Temperatures: 10-35 °C operating

5–40 °C shipping & storage.

Power Supply:

Mains voltage: 230 V, 1-phase, 50 Hz

Standard power supply, other voltages or frequencies on request

Power rating: 2,0 kW.

Online UPS system For complete R O System

## **Distribution Loop:**

The water distribution loop should be made up of stainless steel/PEX Or Food/ Medical grade Materials.

# Standards, Safety and Training:

- I. The RO unit Should be US FDA / CE ("Conformity European") Certified
- II. Manufacturer/Supplier should have ISO certification for quality standards.

#### **Documentation**

- I. User/Technical/Maintenance manuals to be supplied in English.
- II. Certificate of calibration and inspection.
- III. List of Equipments available for providing calibration and routine Preventive Maintenance

Support as per manufacturer documentation in service/technical manual.

- IV. List of important spare parts and accessories and consumables with their part number and costing.
- V. Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.

The job description of the hospital technician and company service engineer should be clearly spelt out

#### Note:

- RO plant as per above specification should be compatible with Heamodialysis machine.
- The cost of RO plant will add into bidder ranking during evaluation.
- Works is to be carried out on turnkey basis i.e. including civil, plumbing, piping, water tanks, electric works etc. required to make Heamodialysis machine fully functional and make full use of the entire system in the hospital shall be the responsibility of the supplier. No extra payment whatsoever on this account shall be payable to the supplier.
- All maintenance including spare parts (Electronic, Mechanical, plastic etc.) software updates and all consumable (i.e. All types of filters, Membranes, disinfectants and salts consumption) should be included in warranty period and in CMC charges.
- RO Unit should be maintained by manufacturers, suppliers or authorised dealer through skilled staff.

# Amendment -IX dated 09.05.2016

IFB: HSCC/KCGMC/Medical Equipment /2015-03/A dated 23.02.2016

- Water testing (chemical and bacterial) should be included in maintenance and should be done once every six months.
- 2. Revised EMD amount Rs. 1,26,000.00
- 3. Revised Delivery and installation period 3 months from date of placement of purchaser order or opening of LC wherever applicable.

Item no.	Last date & time on line sale of Tender enquiry document	Last closing date & time for receipt of e- tender	Last Time and date of opening of Techno – Commercial bids.	
01, Heamodialysis machine	20.05.2016, upto 12.30 hrs IST	20.05.2016, 13.00 hrs IST	20.05.2016, 13.30 hrs IST	Earlier date of tender opening 10.05.2016

As per SCC clause no. 9, the validity of bid security (EMD) shall be considered from the original date of submission of bid/ tender in case tender opening date extended. All other terms and conditions of the tender enquiry document shall remain unchanged.

Prospective bidders are advised to regularly visit HSCC website/ CPP as corrigendum /amendments etc. if any, will be notified on this portal only, no separate advertisement will published in the news papers.

s/d

CGM, HSCC (I) Ltd. For & on behalf of DGMER, Panchkula