

HSCC/BU-II/170/2010

Date: - 24.02.2010

To
ALL BIDDERS

Amendment-2

Subject : Tender for Renovation & repair of existing Laundry & OPD works etc in
AIIMS Ansari Nagar New Delhi

Dear Sir,

Further this has reference to the pre bid meeting held on 22/02/2010 at 11:00 hrs for the subject work at HSCC corporate office, Noida,

The following AMMENDMENTS-2/CLARIFICATIONS-2 may be noted, which shall be treated as a part of the contract to be submitted duly filled, signed & stamp along with tender pertaining to Bill of quantity:

- a. **“Please find enclosed at Annexure-I, the revised list of approved makes and schedule of equipments for HVAC works for the subject project (Page-1 to 6) ”**

Other conditions of tender will remain unchanged.

Thanking you,

Yours faithfully,

Enclosures: as mentioned above

(A.K.Sinha)
Project Coordinator

SCHEDULE OF EQUIPMENT for Laundry to OPD Renovation

S.No	Description	Unit	Condition of Services
1.	Water Chilling Unit :(Screw Type with Air cooled condenser)		
1.1.1	Type	---	Scroll Type
1.1.2	Quantity	Nos.	3 (2 Working + 1 Stand By)
1.1.3	Capacity (each)	TR	27 (actual)
1.1.4	Refrigerant		R134a/R-22
1.1.5	IKW / TR		1.2 (max.)
1.2	Motor (Per Unit)		
1.2.1	Type	° c	Hermetically sealed
1.2.2	Rating	Kw	To suit above
1.2.3	Qty.of comp. & motor per m/c	Nos.	Minimum two
1.2.4	Starting Current	Amps	not to exceed 2 times the full load current
1.4	Chiller (Per Unit)		
1.4.1	Water quantity	usgpm	70
1.4.2	Water temp in	° c	12.22
1.4.3	Water temp out	° c	6.77
1.4.4	Pressure drop	m	5(max)
1.4.5	Fouling factor	(fps)	0.0005
1.4	Condenser (Per Unit)		
	Air Cooled to suit duty as above.		

2.0 Pumps

2.1 Chilled Water Pump

- a. Type : Monobloc type
- b. Quantity (No.) : 3(2 W + 1 stand by)
- c. Capacity, USGPM : 70
- d. Operating Head, m wg. : 20
- e. Speed RPM : 1450
- f. Motor H.P. : To suit duty
- g. Motor type : TEFC
- h. Power supply : 415 V/50Hz/3Ph/AC

3. High Wall Split Air Conditioner

- a) Capacity (tons) 2TR
- b) Air Qty (cfm) 800
- c) No of rows of coil (Minimum) 3
- d) No. of fins/cm of coil 5

4.0 Double Skin Air handling Unit:

S. No.	AHU	Type	Occupancy	No. of RD	Capacity	St. Pr.	Filteration
	Tag no.		nos.		CFM	mm wg	Level
1	AHU 1	FM	200	4	12500	50	1
2	CSU 1	FM	25	4	4000	40	1
3	CSU 2	CSU	15	4	2000	40	1

5. Fan Coil Units

5.1	Type	:	Horizontal
5.2	Capacity	:	2 TR
5.3	Quantity	:	1 no.
5.4	Air Quantity	:	800 CFM
5.5	No. of rows	:	3
5.6	No. of fins/cm	:	5

6. Axial Flow Fans (for smoke extraction)

6.1 1500 cfm, 25 mm st pr. 4 nos.

7. Propeller Fans

7.1 225 mm dia 2 nos.

LIST OF APPROVED MAKES AND MANUFACTURERS

The subcontractors/makes/brands of equipment listed below are approved for installation.

All items to be used in the works samples, catalogues and specifications are to be submitted by the contractor for approval of the Engineer. Only approved makes shall be used in the works. The approved samples shall be kept in the custody of the Engineer for comparison.

ITEM	APPROVED MAKES/SUBCONTRACTORS
Subcontractors	Voltas/ETA/BlueStar/Suvidha/Unique/Approved equivalent by Engineer Incharge (HSCC)
Water chilling machines	
Screw / Reciprocating / Scroll Type water chilling machine	Carrier / Voltas – Dunnham bush / Mcquay / York / Trane/Blue Star
Airhandling Unit	
Unitary type	Carrier Aircon/Caryaire/Blue Star/ZECO/Saiver
Ductable type	Carrier Aircon/Caryaire/Blue Star/ZECO/Saiver
Double skin type	Carrier Aircon/Caryaire/Blue Star/ZECO/Saiver
AHU cooling coils	Bluestar/Voltas/Zeco/Hitech/Caryaire/Carrier-Aircon
Centrifugal fan of double skin type AHU.	Nicotra/Comefri/Flakt/Kruger/GEC
Air Washer	Roots Cooling / Ambassador / Humidin
Scrubber system	Thermax / Peema / Batliboi
End suction back pull out pump	Kirloskar/Beacon-weir/Mather & Platt/KSB/Greaves
Pumps coupled with VFD	ITT / Bell & Goset / Grundfos
VFD with controls	ITT / Danfoss
Humidifier	Rapid cool/Emerald/Khokar
Exhaust Fan Sections	Hitech/ Edgetech/Flowel
FCUs	Hitech/Blue Star/Carrier/Zeco/Voltas

Ventillation Fans

Centrifugal Blower	GEC/ Swent / Flakt/Nadi / Divine
Inline Fan	Krugger/Flakt/Comefri/Nicotra
Propeller Fan	GEC(Alsthom)/Crompton Greaves/ Khaitan/Usha/Polar
Axial Fan	Krugger/ Flakt/comefri

Pipes

GI	ITC/ Jindal/Tata/SAIL/HSL
MS upto 150 mm dia	ITC/ Jindal/Tata/SAIL/HSL
MS 200 to 300 dia	ITC/ Jindal/Tata/SAIL/HSL
GI Sheets	TATA/SAIL/Jindal/Bhushan Steel
Aluminium Sheet	Balco/Nalco/Hindalco
Grilles/Diffusers	Ravistar/Caryaire/ Mapro/Dynacraft
Fire dampers (Motorized)	Caryaire/Dynacraft / Ravistar
Cooling Tower	Paharpur/Bell/Mihir/Aadi/Advance
Electric Hot Water Generator	Rapid cool/Emerald/Khokar
Window /Split Airconditioner	Carrier Aircon/LG/Hitachi/Voltas/Bluestar

Valves

Gate Valve	Leader/Divine/Sant/Bankim Sarkar
Butterfly Valves	Advance/Castle/Audco/Intervolve /Arrow/C&R
Balancing Valves	Advance/Castle/Audco/Arrow/C&R
Non-return Valves	Advance/Castle/Kirloskar/C&R/Arrow
Pot & Y- Strainer	Emerald/Sant/Rapid cool
Three way mixing valves	Stafea/Johnson/Honeywell/Danfoss/Anergy/Rapid controls
Two way motorized valve	Stafea/Johnson/Honeywell/Danfoss/Anergy/Rapid

controls

Actuating motor for 3 way & 2 way valve Staefa/Johnson/Honeywell/Danfoss/Anergy

Ball Valve with & without strainer Rapid Control/Sant/Leader

Insulation

Fibre glass FGP Ltd./UP Twiga/Kimmco / Owens Corning

Expanded Polystyrene Beardsell Ltd./ BASF/Styrene Packing/ Indian Packaging Industries/ Lloyd

Air Filters Thermadyne/Klenzaid/Kirloskar /Anfilco/Johnflower/Dynafilter

Thermometers/Pressure Gauge Fiebig/Emerald/H Guru/Japsin

Thermostats/Humidistats Honeywell/Penn /Staefa/Johnson/ Anergy/Rapid Controls

Electric Strip Heaters Escorts/Daspass

Controls Honeywel/ Johnson / Staefa

Electric Panels CPRI approved make (To be approved by HSCC)

Electric Motors Siemens/Kirloskar/ABB/ Bharat Bijlee.
/Crompton Greaves

Starters/Contactors L&T/ GE Power/ Siemens/ ABB

ACB/MCCB L&T/ GE Power/ Siemens/ ABB

Switch Fuse/ Fuse Switch Units L&T/ GE Power/ Siemens/ ABB

Cables

Power Cables & Control cable CCI/Universal/ICC/NICCO/INCAB/
National/Rallison Cables

Lamps & Push Buttons L&T/GE/ Siemens/ Schneider
Relays Current Transformer/
Ammeter/Voltmeter

Cenrifugal fans for basement Ventilation GEC/Krugger/Flakt