

Amendment-1/Clarification-1

Subject: Tender for Supply, installation testing, commissioning of HVAC work for All India Institute of Ayurveda (AIIA) at Sarita Vihar, New Delhi

Dear Sir,

This has reference to the pre bid meeting held on 07.02.11 at 15.00 Hrs for the subject work at HSCC corporate office, Noida,

The following AMENDMENTS-1/CLARIFICATIONS-1 may be noted, which shall be treated as part of the contract to be submitted duly signed & stamp along with tender

Sr. No.	Queries raised by bidders	Clarifications by HSCC
1.	Power & water for testing & commissioning shall not be in our scope of work and same shall be provided by you free of cost to us.	As Per Tender conditions only
2	Clause 39.8 of SCC Pg 39: We shall be submitting our routine test certificate for the major equipments .In view of this, no field testing laboratory shall be established at site.	This Clause refers to Clause No 39.8 of Vol-III and may be read as only:- The Contractor shall carryout inspection, testing checks and also shall maintain records of inspection, testing & checks of material, works and activities related to construction works in the ISO 9001quality system formats, checklists etc to be given by the consultant during execution period. after getting approval from the Engineer, The contractor shall print at his own cost all forms, tables, formats etc.”
3	Vol-III pg 32 -33 Clause No 37, Taxation: Our price shall be inclusive of all taxes & duties as applicable in the sate of Delhi. However, any statutory variation in taxes and duties or new levy if impose shall be to your account.	As Per Tender conditions only

4	Vol-III pg 33 Clause No.39 .2b, Statutory: We will take approval related to our works only. Please Note that no such direct approval is required for HVAC. Approval from DFS is the responsibility of FF/FA vendor. However, we shall provide documentation support to enable them in getting approval	As Per Tender conditions only
5	Vol-III pg No 35 Clause No39.2.5, Site office: We shall be quoting Car facility as per BOQ valid till agreed completion period. However, other facilities like site facilities, phone, electricity & water etc for the use of HSCC office shall not be in our scope of work.	As Per Tender conditions only
6	Vol-II pg No 66 Clause No 6.7.3.1 Arbitration- All disputes to be resolved by one arbitrator from each side and third selected by both of them	As Per Tender conditions only
7	Refer Vol-III Pg No 18 Clause No 19.4 Pls. note that since it is a 2part bid and therefore price bid submitted initially may be revised (upwards / downwards) depending upon the technical evaluation carried out and final outcome of technical evaluation	As Per Tender conditions only
8	Vol-III Page 63 Appendix to tender regarding Third Party Insurance :- We request you to reduce the compensation to Rs. 5 Lacs per incidence and also restrict the no. of incidents to 5 nos.	As Per Tender conditions only
9.	You would appreciate that the conditions in the tender require considerable amount of working and costing at our end, for which we require certain time. n view of this, we	As Per Tender Conditions Only

	request you to kindly extend the tender submission date till 22.02.2010. Your help in this regard shall be great convenience to us.	
10.	Supply of water-Clause 36.1.2 of Vol-III: Kindly note that requirement of water is not very large for erection of Air conditioning system and we request you to kindly get the supply for water made by civil contractor without any cost to us.	As Per Tender Conditions Only
11.	Power supply –Clause 39.2.4 of vol-III: The Power supply required for erection may please be given by the department free of cost to us or on payment. The electricity required for commissioning of the system shall be provided by the department free of cost by the main cable connected to our main switch board free of cost	As Per Tender Conditions Only
12.	Site office Provision-Clause 39.2.5 of Vol-III: The site office provision is not required from us since this is applicable to civil contractor and not to us. We shall use the site for creating our office as required by us.	As Per Tender Conditions Only
13.	Testing of material: Clause 39.2.8 of Vol-III : This clause is also applicable for civil contractor and not applicable to us	As Per Tender conditions only
14.	Field material Testing Laboratory- Clause 39.8 of Vol-III: The field materials testing laboratory is applicable to civil contractor and not required by us since all the materials supplied by us of specified make and if any material is to be tested the same will be tested in Govt laboratories	This Clause refers to Clause No 39.8 of Vol-III and may be read as only:- The Contractor shall carryout inspection, testing checks and also shall maintain records of inspection, testing & checks of material, works and activities related to construction works in the ISO 9001quality system formats, checklists etc to be given by the consultant during execution period. after getting approval from the Engineer, The contractor shall print at his own cost all forms, tables, formats etc.”

15.	Compliance of statutory obligations for obtaining completion certificates-clause 41.0 of Vol-III; This is the department /civil contractor's responsibility and we do not have nay statutory obligation. The electricity inspection of CEA is to inspect the installation and give the certificate for the same at the cost of department.	As Per Tender conditions only
16.	Special conditions-Clause-12.3 of vol-III: The Power supply and water supply required for commissioning the air conditioning plant shall be provided by the department free of cost to us from their own source	As Per Tender Conditions Only
17.	Since this is not a civil/building work it is not required to provide temporary fencing around the working area. Please accept.	Stands deleted
18	Terms of Payment (22.0/SCC-Pg 53): Under this head payment terms for equipments is mentioned. Please specify the same for materials other than equipments	As Per Tender conditions only
19.	Please clarify witness testing of chillers, whether you need it or not	As Per Tender Conditions Only
20.	For point 24(a) SCC Page 54, we understand that water proofing treatment shall be under Civil Contractor scope. Please clarify.	Stands Deleted
21	Choice of make for equipment, final choice with Engineer, Refer clause no 4 page 46 of SCC Final choice shall be with vendor out of the approved makes in tender	As Per Tender conditions only
22	Bid Validity -120 days Refer clause 11, pg no 12 of SCC, Cannot quote beyond 90 days validity.	As Per Tender conditions only

23	Civil works: We request you to exclude any form of civil , excavation making boreholes from our scope	Stands Deleted
24	In Vol-III, additional specification conditions of contract B, point no 4 Page no 46 (supply of Equipment), Final Choice of make among approved list of make shall lie with us (contractor)	As Per Tender conditions only
25	In Vol-IV, Point no 9, Please clarify the heading name of this point no and request you to exclude this point from our scope of work of work	Vol IV Clause No 9 Page 13 stands deleted except sub clause no 9.8 which may be read as under:- “Making Frames and openings for Fixing Grills & diffusers in false ceiling, boxing or in walls/roofs s per direction of Engineers”
26	In Vol-III, Point no 39.2.2 (Temporary Structure), Page no 33, Request you to provide covered storage space for store & office	As Per Tender conditions only
27	In Vol-III, Point no 36.2 (Variation in Price), Page no 31, Request you to accept Variation/ escalation & statutory variation shall be as per CPWD norms	As Per Tender conditions only
28	Sheet thickness of electrical panel shall be 1.6 mm instead of 2mm as given in tender as per manufacturer standard	As per Tender conditions only
29	On the pg no 18 of technical specifications Vol IV, it is mention that evaporator & condenser are to be designed for working pressure of 300 psig & to be tested at 450 psig. The above test pressure requirement is meant for -22 refrigerants where as our chillers are R-134a based & suitable test/design pressure shall be applicable.	As per Tender conditions only

30	Duct Acoustic/wall acoustic: We request you to accept density of 32 Kg/cubm for both the applications	The Density of FBG shall be 32 Kg/m ³
31	Wall Acoustic: Clause no 11.4 pg 95 perforated GI sheet 0.5mm and overlap joints with beading 25 x2 mm. Kindly confirm the beading material GI/Al. Clause No 9.1 ,pg 94 perforated Al sheet 0.5 mm. Kindly confirm perforated sheet material GI/Al.	Beading material shall be GI Perforated sheet material shall be AL
32	Refer item 12.1.15A of BOQ pg 13: Kindly confirm whether Nitrile rubber/XLPE insulation also make for insulation material. Make –Supreme/ Paramount	For item 12.1.15A of BOQ Pg 13 the material of insulation shall be XLPE Make of XLPE: Supreme/Paramount/ Thermobreak/Trocelene
33	Butterfly valve, Pressure rating 12 kg/sqcm as per clause No 5.1.6 pg 82. It should be either 10 or 16 kg/sqcm	Pressure rating of Valves shall be PN 16
34	Pipe insulation (thickness of insulation) Clause no 2.1.3 , pg-90- Thickness for 100mm dia pipe and 150mm dia pipe is repeating	This Clause refers to Clause no 2.1.3 pg No 90 of Vol-IV and may be read as Pipe Dia(NB) Thickness(MM) 20-100 (Upto) 25 101-150 (upto) 40 151-250 (Upto) 50 300-450 (upto) 65 451 &above 75
35	Pr gauges & thermometer (appearing separately in BOQ)- Refer item 13.2.5& 13.2.6 of BOQ Pg-17	As per Tender conditions only
36	Elect panel- Refer item 23.3, 23.4 & 23.5 of BOQ Pg-23-25 No of outgoing in all the three panel are 37 for fans whereas we have 39 nos of Axial fan/ Exhaust blower	As per Tender conditions only

37	Ventilation/Exhaust blower with electrical panel and earthing : Refer item 11.1 of BOQ pg 10 : Since panel are appearing separately in BOQ (item No 23.3, 23.4, 23.5) electrical panel is not required to be loaded	As per Tender conditions only
38	For AHU under item no 5.1.1 to 5.2.12 on page 4-6 of BOQ, please clarify which AHU are vertical type & which are horizontal type. As from BOQ it is not clear what to consider.	Provided in Tender documents refer drawings
39	Manufacturing code of chillers shall as per manufacturing standard applicable in the respective country of manufacturer	As per Tender conditions only
40	Since the quantity of ducting is huge therefore for fast execution of project, ducting shall be factory fabricated out of class VIII sheet contain zinc coating 120 GSM (inclusive of both side) fixed with flanges / supports as per SMACNA	As per Tender conditions only
41	AHU Casing- Technical specification calls for outer sheet of 0.8 mm thick CRC & inner sheet of 0.63 mm thick GSS for AHU casing on page no 22 in volume III (technical specification). None of the manufacturer using CRC sheet for fabrication of AHU casing hence kindly approved outer sheet of 0.63 mm thick GSS & inner sheet of 0.63 mm thick GSS for AHU casing	As per Tender conditions only
42	Control cable ask in item of control console as lump sump. Please make separate item on measurable basis in BOQ	As per Tender conditions only
43	Ventilation Exhaust Blower: In Vol-V (BOQ), under item no 11, please specify the fans for smoke evacuation	Emergency Fans shall be Fire rated and of NFPA or equivalent standards

	& clarify that these fans shall be supply with H class motor or not.As the same is not specified in tender conditions.	
44	Vol-III pg No 29 Clause No 2.2 Cooling Coil: As per manufacturer standard cooling coil thickness for FCU's shall be 27 G (0.3 mm thick)	As per Tender conditions only
45	Vol-III,IV Pg No 118,9 Clause No 13.4, 8.1 HRV : The temp exchange efficiency of HRV shall vary between 55-70% as per various manufacturers.	As per Tender conditions only
46	Vol-III Pg No 107 Clause No 22.2 Grills and Diffuser measurement :Pls. note that min. measurement requirement for grilles, diffusers and dampers shall be 0.1 sq.m	As per Tender conditions only
47	Vol-IV pg No10 Clause No 11.1 , Electrical Panels: Since starter panels are also a separate item (23.3, 23.4 and 23.5) we request you to exclude panels from fans to avoid duplicity	As per Tender conditions only
48	Vol-IV pg No 3 Clause no 3.1, Secondary Chilled Water Pumps: We feel that vertical split casing pumps can also be used instead of horizontal split casing type.	As per Tender conditions only
49	Vol-IV pg No 8,9,10 Clause No 7.3 8, 9, 10: Since cabling is appearing as a separate item (24) we request you to exclude the same from these items to avoid duplicity.	As per Tender conditions only
50	Vol-III, Clause 25 pg no 54: We request you to accept that operation for one month shall be without consumables	As Per Tender conditions only
51	Please confirm whether the witness	As Per Tender conditions only

	testing of chiller at manufacture works is to be included or not and for how many chillers at how many points, as the same is not specified in the tender	
52	In addition to make specified in tender, we request you to include following makes also: FCU-Hitech Cooling Tower-Flowtech Inline Fans-Caryaire/Osterberg AxialFans- Hmidin/Sarala/Wolter(Waves) Centrifugal Blower Humidin/ Sarala/Yilida(Waves) 2 way valves: Siemens/ Belimo 2 way cum PID Valves: Advance XLPE: Paramount/ Supreme ElectricalPanel- EAP/KEPL/system Power control	As Per Tender conditions only
53	On the page no 17 of technical specifications, it is mentioned that evaporator & condenser are to be designed as per ASME codes. As we shall be supplying chillers from China so local GB codes shall be applicable instead of ASME codes	As per Tender conditions only
54	The tender mentions for multi compressor chiller please clarify whether you require multiple refrigerant circuits also or not	As per Tender conditions only
55	For Point 10.0, technical specifications, specs AC Page 47, we understand that AMC for 5 years after DLP for AC Plant & Low side installation would not be under scope for his project. Please clarify.	As per Tender conditions only
56	For Point 2.0 a) Secondary water Pumps, Technical Specification, Specs-AC-Page 43, please clarify the requirement of double suction inlet water pumps	As per Tender conditions only

57	For item 11.1.6, 11.1.7 & 11.1.8 of BOQ , Exhaust Blower are DIDW centrifugal type or Axial Type, please clarify.	Provided in schedule of Equipment
58	Following makes are required to be incorporated in addition to the makes already mentioned in approved list:- Air Handling Unit-Edgetech Electrical Panel- KEPL, Milestone, Neptune	As per Tender conditions only
59	Elect panel- Refer item 23.3, 23.4 & 23.5 of BOQ Pg-23-25 No of outgoing in all the three panel are 37 for fans whereas we have 39 nos of Axial fan/ Exhaust blower	As per Tender conditions only
60	AHU with electrical panel and earthing- Refer item 5.1 of BOQ Pg-4 We have considered MCB upto 7.5 HP motor with DOL starter, Ammeter, voltmeter and phase indicating lights in Incoming (wall mounted, single door) . We have considered MCCB more than 7.5 HP motor with Star delta starter, Ammeter, voltmeter and phase indicating lights in Incoming (wall mounted, single door)	As per Tender conditions only
61	Air washer Refer item 9 of BOQ Pg-9 16G GI sheet weather proof body with stainless steel sump and body. Kindly confirm whether body shall be GI or SS	Body Shall be GI & Sump shall be SS
62	Exhaust scrubber with SISW Forward curved ,Refer Clause no 15 pg no 119 of schedule of equipment	This Clause refers to Clause No 15.1 page no 119 of Vol-IV and may be read as :-

	Considering DIDW fan as suggested by manufacturer	Type- SISW/DIDW Forward Curved
63	<p>Secondary chilled water pumps (Horizontal split casing with side suction and top discharge), refer clause no 5.1 pg no 11 of schedule of Equipment</p> <p>Can be quoted with vertical spilt casing with side suction and top discharge as suggested by manufacturer</p>	As per Tender conditions only
64	<p>Capacity control modulation of Screw Chiller from 100% to 10 %, Refer clause no 2 pg no 16 of Technical Specification</p> <p>It shall be 100 % to 12.5% as per specified manufacturer recommendation</p>	As per Tender conditions only
65	<p>Chiller: Evaporator testing and design with ASME standards, Refer Clause no 5 Pg no 17 of Technical specification</p> <p>Since chillers shall be outsourced from china, Chinese GB codes shall be given instead of American code , Testing pressure shall be as per mfg std</p>	As per Tender conditions only
66	<p>Inline Fan & Propeller with electrical panel, Refer item no 11.1.9 to 11.1.25 page no 11 & 12 of BOQ</p> <p>We shall quote inline and propeller fan with single pole MCB only instead of any panel because of single phase characteristic.</p>	Inline Fan and Propeller Fan Shall be with single Pole MCB
67	Cabling & Earthing: This item is repeating with equipments also i.e. with Air washers, Scrubber,	As per Tender conditions only

	Humidifier etc, shall we load the cost in equipment also	
68	Control Console Desk (Push Button and indicating lights for fans), Refer item no 27 , pg no 27 of BOQ Shall not be able to provide for single phase motor i.e for inline and propeller fan	As per Tender conditions only
69	Underground Piping upto 350 mm dia , Refer item no 12.3 pg no 16 of BOQ Whether pipe rate are to be added or only trench, tarfelt and back filling to be done	As per Tender conditions only
70	Air Handling Unit (with 8 R CC +2R HC + humidifier) 40 mm static Refer item no 5.1.1 to 5.1.4 pg no 4 BOQ Static seems to be very less , should be approx 125 mm instead of 40 mm	For Item 5.1.1 to5.1.4 the static pressure shall be 125mm
71	Water Cooled Screw chillers In Vol-IV Under section 2, Chillers Technical specification, Pg 15 as per specification chillers shall be supply with minimum 2 compressors as you have considered one standby chillers in BOQ & Few of approved makes of imported screw chillers are also not able to supply the chillers with two compressor which leads us to restrict specific approved make than the given approved make in tender. In view of this we request to amend the specification to single/two compressor per chiller	As per Tender conditions only
72	It is also mention that evaporator and condenser shall be supplied with water boxes and having Victaulic connection. Request you to accept flange type connection for both	As per Tender conditions only

	evaporator and condenser	
73	Hot water Pumps: There are two different capacity of Hot Water generator under item no 7.1 & 7.2 i.e 325 KW x 4 Nos & 50 KW x 1 no but under BOQ item no 2.2.1 monoblock hot water pump of only 50 USGPM (2 working+1standby)is mentioned only. Please clarify	As per Tender conditions only
74	Cooling Tower: Under BOQ item no 4, there are 5 nos qty mentions under QTY. column but under Description column it is mentioned 5 working + 1 standby. Please rectify	This Clause refers to 4.0 of BOQ(Vol-V) Pg 3 under description of Cooling Tower and may be read as :-“Supply, installation, testing and commissioning of FRP induced draft type cooling tower of following capacity complete with FRP basin body, fan, distribution pipes, overflow pipe, ladder etc. as per specifications and drawings of following parameters. (4 working + 1 standby) water flow rate - 1000 USGPM Temp. In / Out - 97.5 / 90 deg. F Capacity - 300 TR
75	AHU Under BOQ item no 5.1L description (Controls). Please clarify that these controls shall be for only cooling coils or for both heating and cooling coil	As per Tender conditions only
76	Under Ground Piping: Under Item no 12.3 , please clarify that it is only laying of pipe or whether supply of pipe is also in our scope	As per Tender conditions only
77	Electrical Panels: i)Under item no 23.1 & 23.2, you have mention DOL starters for 22/30 KW motors for secondary pumps please clarify. Also provide us the KW rating for starter for cooling towers panel	As per Tender conditions only
78	Propeller Fans: Static Pr of 5mm for all propeller fans seems very less, Please clarify. Make given in	As per Tender conditions only

	approved list of make are not able to supply such high CFM fans request to approve the same make Axial Fans as Propeller Fans make	
79	List of make: We request you to provide following makes in addition to approved list of make specified in the tender: I. AHUs , FCUs & Coils-ETA Factory Fabricated Duct-Alpha Duct	As per Tender conditions only
80	In Vol-III, additional specification conditions of contract B, point no 4 Page no 46 (supply of Equipment), Final Choice of make among approved list of make shall lie with us (contractor)	As per Tender conditions only
81	Refer Vol-IV Page No 20,24 Clause No 2.1,3.1 regarding Fan section-; Tender mention fan rpm for fan dia more than 350 mm. For fan dia less than 350 mm fan rpm shall be in the range of 1440 rpm for optimum fan selection.	As per Tender conditions only
82	Vol-IV pg No 20,24,27 Pg No 2.2,3.2,4.0 Regarding Coil Section:- As per manufacturer standard 0.41 mm thick coils are the standard. The coil header shall be of MS pipe (heavy class)	As per Tender conditions only
83	Vol IV Pg 22,25 Clause No 2.5,3.4 Regarding Housing of AHU-: As per AHU manufacturer standard CRC sheets are no longer used these days. Instead powder coated GSS sheets shall be used. Also since the AHU's are double skin type, outer sheet of 0.63 mm thick will be sufficient instead of 0.8 mm.	As per Tender conditions only
84	Clause 2.1.1 Pg 36 of Vol IV:	As per Tender conditions only

	The wind velocities given are very high. Generally these tower are deigned to withstand wind velocities up to 30 m / sec.	
85	Clause 4.2 Pg 91 of Vol IV Pls. note that double skin AHU's don't require external insulation. Hence we request you to remove AHU's from this section	As per Tender conditions only
86	Clause No 8.1 Pg No 92 of Vol-IV Pls. provide us the vendor details of polypropylene based "Tough guard"	As per Tender conditions only
87	Clause No 10.7,5.1 Page No 116,4 of Vol-IV With 8 RD cooling and 2 RD heating coils and microvee filters static pressure of 40 mm won't suffice. Minimum static pressure requirement shall be 65 mm for such AHU's	For Item 5.1.1 to5.1.4 the static pressure shall be 125mm and may also include HEPA Filter
88	Axial Fans: Fan dia, outlet velocity and fan motor of axial fans mentioned in schedule of equipments. The axial flow fans are selected on the basis of CFM static and RPM. The fan dia, outlet velocity and fan motor is not the criteria for selection of axial flow fans. The selection can vary with different manufacturers. The selection shall be as per their standard most efficient in terms of power and sound level.	As per Tender conditions only
89	Square/Circular diffusers: in item no 19.1 & 19.2 of BOQ, Square and circular diffusers asked in same item but their prices are different so please separate quantities of square and circular diffusers.	As per Tender conditions only
90	Filter section Pg No 31 of Vol-IV-requirement of HEPA filters in OT's	This refers to Section 5 of Vol-IV page no 31 and may also include following subclause:- 4.0) HEPA filters shall be made in

		<p>extended surface configuration of deep space folds of sub micron glass fibres. The filter media shall be housed in an aluminium sheet frame provided with double turned flanges and closed cell neoprene gasket. The filter media shall not absorb moisture, stretch, swell or undergo chemical change with moisture. The filter shall be resistant to fungus and bacterial growth. Filters shall be free from pin holes and other leaks.</p> <p>The housing shall be designed to install the Hepa filters in the terminal locations in the false ceiling or in the duct plenum so that it is removed easily without risking the infiltration of dust whatsoever. The arrangement for filters shall be strictly in accordance with the manufacturers recommendations and shall be approved by the Engineer prior to fabrication and installation. The filters shall be protected with aluminium slotted protective grille from the bottom in case of installation of filters in false ceiling air terminals. All M.S. parts shall be derusted and shall be epoxy painted. The Aluminium grilles shall be made from 1.6 mm aluminium sheets with minimum clear area of 60 percent. The grilles shall be anodised stove enamel painted as approved by the Engineer”</p>
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Other conditions of tender will remain unchanged.

Thanking you,

Yours Faithfully,

(V.V Govinda Rao)
General Manager (Civil)