#### INDIAN INSTITUTE OF TROPICAL METEOROLOGY PASHAN, PUNE-411008

#### **GLOBAL TENDER NOTICE**

Director, Indian Institute of Tropical Meteorology, Dr.Homi Bhabha Road Pashan, Pune- 411 008 (India) invites separate sealed tenders (Part-I – Technical Bid, Part-II – Commercial Bid) in separate sealed covers from Manufacturers / Suppliers and their accredited selling agents for the Supply, Commissioning and Installation and Satisfactory Demonstration of the following items:

#### i) "GPS Advanced Upper Air Sounding System with 100 Sondes each" – Qty 02 Sets.

#### (Tender No.PS/Tender/06/2009)

Last date of receipt of Tender at IITM, Pune : 22 October 2009 at 13:30 hrs. Opening of Tenders (Technical Bids only) : 22 October 2009 at 15:00 hrs.

#### ii) "Urban Air Pollution Monitoring System (Phase-II)" - Qty 05 Nos. each.

#### (Tender No.PS/Tender/09/2009)

Last date of receipt of Tender at IITM, Pune : **29 October 2009 at 13:30 hrs.** Opening of Tenders (Technical Bids only) : **29 October 2009 at 15:00 hrs.** 

Tender documents with specifications can be obtained from Purchase and Stores Section of the Institute.

The Institute reserves the right to reject any or all tenders without assigning any reason therefore. For further details please visit our Website: www.tropmet.res.in

Senior Technical Officer-II for Director Email: nirgude@tropmet.res.in

#### INDIAN INSTITUTE OF TROPICAL METEOROLOGY, PASHAN, PUNE – 411 008, INDIA

### File No.PS/125/35/2009

Technical Specifications for "URBAN AIR POLLUTION MONITORING SYSTEM (PHASE-II" – Qty 05 Nos. each.

## **URBAN AIR POLLUTION MONITORING SYSTEM: PHASE-2**

## (Turnkey Job)

The Manufacturer of Ambient Air Pollution Monitoring System should have world-wide recognition of having enough field experience in designing such system to provide high quality air pollution data. The System should be designed to minimise the time spent on maintenance and calibration. Hence, the following criteria /features must be adopted and the manufacturers must comply with the same:

- 1. The manufacturer of the prime analysers (NOx, CO, O<sub>3</sub>, HCs, etc.) must have enough expertise on operation and maintenance of such monitoring system & on data reporting of the pollutants. Also, the preference will be given to the manufacturer who has ISO9000 /ISO9001 /ISO17025 quality accreditation to perform such operation & data reporting job. A certificate of an accredited authority to execute data reporting from ambient air and emission monitoring systems must be enclosed.
- 2. All analysers (CO, O<sub>3</sub>, NOx, PM10, PM2.5, Black carbon) used in the system must be designed on US-EPA Equivalent Reference Methods, if issued by US-EPA for that parameters analyser. A certificate of US-EPA approval must be enclosed as qualifying requirement for bid.
- 3. All analysers and AWS in the system must have technical sophistication to be connected digitally to Data Acquisition System for providing substantial advantages in communication. The Data Acquisition System must have features like automatic data validation software complete with data capture percentage.
- 4. The Data Acquisition System should operate on Windows XP PRO Platform and be of a "Client/Server" configuration for improved reliability.
- 5. Real time or averaged data must be viewed quickly and easily through a remote CLIENT interface on the central computer.
- 6. The Data Acquisition System feature calculated channels including nested calculations, vector averaging and rolling averages.
- 7. The System must support remote communication with full user interface from anywhere in the world via a TCP/IP network or dial up network.
- 8. Data Evaluation and Reporting Software must have been upgradeable to a multi-user version and should be able to collect and process data from a wide variety of data acquisition systems & analysers.

#### Note: Supplier should categorically provide detail feedback on each and every point mentioned above in chronicle order related to compliance (yes) /non-compliance (no) or any other explanation/justification in a tabular form.

A.	A. SPECIFICATIONS FOR OZONE ANALYSER -5 sets		
1	General Range	User selectable and automatic	
2	Concentración Range	0-1000 ppb	
3	Lower Detectable Limit	≤0.5 ppb	
4	Zero drift	< 1 ppb for 30 days	
5	Response time	Programmable (10 s to 80 s)	
6	Averaging time	Programmable (1 min to 24 hrs)	
7	Internal memory	Suitable for data storage (more than 5 MB)	
8	Data storage	Built in analyzer (should store 1 min average for more that 5 day)	
9	Port & compatibility	RS-232 or RS-422 and Compatible with windows-XP	
10	Analog output	0-10 V and 0-20 mA or 4-20 mA	
11	Power supply	230 V AC - 50 Hz	
12	Manual	Instruction & operation manuals	
13	Calibration unit	In Built Calibration unit with internal zero span check feature	
14	Approval	US-EPA approved	

<b>B.</b>	B. SPECIFICATIONS FOR NOx -ANALYSER -5 sets		
1	General Range	User selectable and automatic	
2	Concentration Range	0-1 ppm	
3	Lowest detectable limit	≤0.4 ppb	
4	Zero drift	<0.1 ppm per day	
5	Response time	Programmable (30 s to 90 s)	
6	Averaging time	Programmable (1 min to 24 hrs)	
7	Internal memory	Suitable for data storage (more than 5 MB)	
8	Data storage	Built in analyzer (should store 1 min average for more that 5 day)	
9	Port & compatibility	RS-232 or RS-422 and Compatible with windows-XP	
10	Analog output	0-10 V and 0-20 mA or 4-20 mA	
11	Power supply	230 V AC - 50 Hz	
12	Manual	Instruction & operation manuals	
13	Calibration unit	Inbuilt unit Inbuilt unit for zero gas calibration and NOX ( preferable as permeation bench )	
14	Approval	US-EPA approved	

C.	SPECIFICATIONS FOR	<b>CO -ANALYSER</b>	(CO <sub>2</sub> as optional) -5 sets
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1	General Range	User selectable and automatic
2	Concentration range	0-10 ppm
3	Lowest detectable	≤0.4 ppm
	limit	
4	Zero drift	<0.1 ppm per day
5	Span Drift	1% of FS per day
6	Response time	Programmable (10 s to 80 s)
7	Averaging time	Programmable (1 min to 24 hrs)
8	Internal memory	Suitable for data storage (more than 5 MB)
9	Data storage	Built in analyzer (should store 1 min average for more that 5 day)
10	Port & compatibility	RS-232 or RS-422 and Compatible with windows-XP
11	Analog output	0-10 V and 0-20 mA or 4-20 mA
12	Power supply	230 V AC - 50 Hz
13	Manual	Instruction & operation manuals
13	Calibration unit	Inbuilt unit for zero gas calibration with solenoid valve for external
		span gas cylinder
14	Approval	US-EPA approved
15	<b>OPTIONAL</b>	Specifications for CO <sub>2</sub> option:
	(Quote separately as	Carbon dioxide measurement inbuilt in CO-analyser box or separate
	additional cost)	Measurement range 50 to 2000 ppmv
		Accuracy (including repeatability, non-linearity and calibration
		uncertainty) $\pm$ (2 % of range + 2% of reading)
		Long-term stability $<\pm 5$ % of range / 5 years
		Response time (63%) 1 minute

D.	D. SPECIFICATIONS FOR METHAE-NON-METHANE HYDROCARBON				
	ANALYSER -5 sets				
1	General Range	User selectable and Automatic			
2.	Concentration Range	0-50 ppm			
3.	Lower Detectable Limit	0.05 ppm			
4.	Response Time	Programmable (30 sec to 90 sec)			
5.	Туре	Should be able to separate CH <sub>4</sub> and NMHCs			
6.	Averaging time	Programmable (Minimum 1 minute to 24 Hrs)			
7.	Internal memory	Suitable for sufficient data storage			
8.	Data storage	Built-in analyzer (more than one month hourly average value)			
9.	Port & compatibility	RS-232 or RS-422 and Compatible with windows-XP			
10	Power supply	230 V AC, 50 Hz			
11	Manual	Instruction & operation manuals			
12	Operating software	Should be compatible with windows-XP			
13	Calibration unit	Preferable in-built unit for zero gas calibration, with external			
		span gas			
14	Approval	Any competent agency, if available			

E.	E. SPECIFICATIONS FOR SPM -ANALYSER -5 sets		
1	General Range	PM-10/PM-2.5 with Mass Distribution (online monitor)	
2	Concentration Range	$0.1 \ \mu g/m3 \ - \ 10 \ mg/m^3$	
3	Lowest detectable	$1 \mu\text{g/m}^3$	
	limit		
4	Averaging time	Programmable (1 min to 24 hrs)	
5	Internal memory	Suitable for data storage (more than 5MB)	
6	Data storage	Built in analyzer (should store 1 min average for more that 5 day)	
7	Port & compatibility	RS-232 or RS-422 and Compatible with windows-XP	
8	Analog output	0 -10 V and 0-20 mA or 4-20 mA	
9	Power supply	230 V AC - 50 Hz	
10	Manual	Instruction & operation manuals	
11	Calibration unit	Inbuilt Calibration unit with auto calibration or separately	
12	Approval	US-EPA approved	
13	Measurements	Each set should contain facility for simultaneous measurements of PM10 & PM2.5 OR it is essential to quote for 5 sets each of PM10	
		& PM2.5 separately.	
		Optional: Quote additional cost of five PM1 inlets/filter head if it	
		can be replaced with any of the above mentioned PM2.5 /PM10 heads /inlets.	

<b>F.</b> \$	F. SPECIFICATIONS FOR BLACK CARBON ANALYSER -5 sets		
1	General Range	$0.5\mu g/m^3 - 10 mg/m^3$	
2	Туре	Optical transmission absorption	
3	Cycle	10 sec 1hour	
4	Sensivity	1ng/m <sup>3</sup> or less	
4	Averaging time	Programmable (1 min to 24 hrs)	
5	Internal memory	Suitable for data storage (more than one month)	
6	Data storage	Built in analyzer (should store 10 min average for more that 5 day)	
7	Port & compatibility	RS-232 or RS-422 and Compatible with windows-XP	
8	Analog output	0 -10 V and 0-20 mA or 4-20 mA	
9	Power supply	230 V AC - 50 Hz	
10	Manual	Instruction & operation manuals	
11	Operating software	Should compatible with windows-XP	
12	Calibration unit	Calibration switch for zero and span calibration unit with auto	
		calibration or separately	
13	Approval	US-EPA approved	
14	Vibration	Stabilization for vibration	

G.	G. SPECIFICATIONS FOR ZERO GAS GENERATOR -5 sets		
1	Outflow Generator	1 TO 5 Liter/Minute	
2	Outlet Pressure	Adjustable Between 0.1 and 6 Bar	
3	Purity	>99.999%	
4	Power Supply	230 V, 50Hz	
5	Manual	Instruction and Operation Manual	
Scru	lbbers		
Нор	calite	Removal of CO (<0.1 ppb)	
Pura	fil	Removal of NO, NO <sub>2</sub> , NOx (<0.1 ppb)	
Char	coal	Removal of SO <sub>2</sub> , H <sub>2</sub> S, Ozone (<0.1 ppb)	
Mole	ecular Sieve	Removal of $H_2O$ (Dew point -15 C)	
Power		220 volts AC, 50 Hz (optional 110VAC)	
Pressure		Up to 200 KPA	
Flow	7	0-9 LMP	

H.	H. SPECIFICATIONS FOR MULTI POINT GAS CALIBRATOR (MGC) -5 sets				
1	Power Supply	230 V; 50 Hz			
2	Weight	< 20 Kg			
3	Pressure	Ajustable Between 0.1 and 6 Bar			
4	Dilution	From High Concentration Span Gas to Diluted Gas			
5	Manual	Instruction and Operation Manual			
6	Calibration Gases, Cylinders & Regulator	Cylinders of Capacity 10 liter with SS Regulator and single cylinder for all the calibration gases. All the calibration gases must be supplied in the cylinders.			

Specification for Hydrogen gas generator -5 sets		
Outflow generated	: 100 Ncc / min	
Outlet Pressure	: Adjustable between 0.1 and 6 bar	
Purity	: >99.9 %	
Power Supply	: 230 V/50Hz	
Manual	: Instruction and operation Manuals	
Consumables	: All	
	Outflow generated   Outlet Pressure   Purity   Power Supply   Manual	

## J. AUTOMATIC WEATHER STATION –5 Sets :

#### Data Logger

Reporting Units : All measurements in Metric

Serial port : 9 pins d-sub connector, selectable baud rate, flow control

Memory : Minimum 640KB RAM or More (higher version) nonvolatile (45 days at 15 minute intervals with 6 sensors). Upgradeable RAM.

Operating Temperature : Transducer : -40° to 60°C; Data acquisition module : -40° to 60°C Time keeping format : MM/DD and HH/MM; Accuracy + 30 seconds /month

Sensors :

1) Wind Speed

Range : 0 to 125 mph; Resolution : > 0.1 mph; Accuracy : + 1 mph

#### 2) Wind Direction

Range : 0 to  $360^\circ$ ; Resolution : > 0.1 %; Accuracy : + 30%

Starting threshold : 1.2 mph

### 3) Temperature

Range :  $-40^{\circ}$  to  $60^{\circ}$ C; Resolution :  $>1^{\circ}$ F; Accuracy :  $+1^{\circ}$ F

## 4) Relative Humidity

Range : 0 to 100% RH; Accuracy : + 3% or less

#### 5) Pyranometer

Spectral sensitivity: 0.3 to 3 µm

Azimuth response: < 3% of the value

Cosine response: < 3% of the value, zenith angle  $0^{\circ} - 80^{\circ}$ 

Response time: < 25 seconds @ 95%, < 45 seconds @ 99%

Measuring range: 0 to 1500 Wm<sup>2</sup>

Resolution:  $< 1 \text{ Wm}^2$ 

Stability: < 1% per year

Temperature effect: < 1% of the value between -20°C to +40°C Linearity: < 0.5% in the range 0.5-1330 Wm<sup>2</sup> Impedance: About 35 ohm

#### 6) Rain Gauge

Resolution : 0.02 inches/tip; Accuracy : + 4%; Max rate : Unlimited; Carrying Case Size : 20x17x18 Tripod : Height : 36" (with mast 8')

#### Data Acquisition System and Software:

The output of AWS preferably have to be integrated with the main DAS stated in "K" below so that the correlative study of air pollution parameters with meteorological parameters can be made using rose diagram, etc. All meteorological parameter data from 5 different stations should also be transmitted through the GSM network to local as well as central server for data collection and plotting for which all necessary ports and software should be provided.

Sr. No.	K. SPECIFICATIONS FOR LOCAL AND CENTRAL DATA ACQUISITION, CONTROL SYSTEM & GSM-NETWORK	
1	Data logger system capable to acquire all the local station data.	
2	GSM networking (or alternative) with minimum memory to store all the local station data for the period of 6 months, with capability of acquiring real time and store data from local station to centralization by GSM or other suitable network with software for the data analysis and visualization.	
LOCA	L STATION: 5	
1.	Should connect through RS232 and USB communication ports. Should able to transmit data and /remote control via modem/GSM network. <b>In addition</b> to this it should also provide the similar connectivity and data control and transmission of automatic weather station data (4 channels) which is being installed at each station separately by us.	
4.	Should provide GUI windows based application software for continuous air monitoring.	
6. 7.	Control panel window for control of each analyzer. Real time status and diagnostics for maintenance people. Programmable down loading of data.	
	Should provide data storage capacity for at least 3 years.	
1.	RAL STATION: 1 The software should have all advance features to enable remote automatic data collection from each station and should provide full control over data loggers from anywhere including real time viewing, status and diagnostic information. Data communication and acquisition system should handle the data transmission	
3.	/reception from 5 different monitoring stations of an ambient air quality network and receive incoming messages / signals from remote site. <b>In addition</b> to this it should also provide the similar connectivity and data control and transmission of 5 different automatic weather station data which are being installed at each station as per sr. "J". Central station software should manage 10 remote air quality-monitoring stations.	
4. 5.	Should provide data management, analysis and reporting. Should compatible with Windows-XP	
	Should provide data storage capacity for at least 2 years.	
7.	The remote control ability on the client server model as such should look and realize exactly the same when used from a remote location as it does when used on site. It should be a separate process that is independent of what is being displayed on the logger.	
8.	Multiple clients should be able to connect to the server from different locations at a time to allow remote computer to view the data being logged in real time.	
	giration of Branded remote data acquisition machine -5 op /Laptop	
Intel v	) Core(TM) 2 Duo Processor E8400 (3.0GHz /1333FSB /6M L2 cache) or Higher with Pro Technology and remote management option	
	um 2GB (1 x 2GB) NECC Dual Channel DDR2 800MHz SDRAM Memory um 320 GB SATA Hard Drive 7200 RPM with 1 Additional Internal 3.5" Storage bay for dation	

Genuine Windows XP Professional licensed Minimum 17" Square LCD Monitor with HD resolution for Desktop (If laptop then ≤ 14") Minimum 16X DVD RW with Dual Layer Write Capabilities USB Keyboard, Optical USB Mouse and pad, Gigabit Ethernet LAN controller (10/100/1000) Integrated Intel(R) Q45 Express Chipset mother board Integrated Intel(R) Graphics Media Accelerator 4500 graphic card Integrated High Definition Audio

#### Confugiration of central data acquisition machine -1

Same as above with 24 inches TFT flat squire monitor (instead of 17")

# Configuration of Wireless LCD Projector /display with One-Touch "Auto-Everything" Set-Up & Daylight View Technology -1

Native: 1024 x 768 Pixels; Brightness: minimum 3,000 ANSI lumens; Contrast ratio: 700:1 or more; Aspect Ratio: 4:3; Size: Compact; Lens: 3X digital zoom and focus; Memory card slot and USB Port; Wired and Wireless networking; Compatibility: Computer, Video, HDTV, XGA native, UXGA; Weight: less than 3.5 kg; Power supply (240V); Quiet Operation; Input Auto Set-Up; Automatic input signal detector; Built-in Speaker; Card size remote; Soft Carrying Case.

L.	SPECIFICATIONS FOR UPS /AIR CONDITIONER /RACK -5 sets
1	5 KVA Online Branded UPS With Minimum 2 Hour Battery Backup on full load.
2	Branded split type air conditioner system of two ton (2 units) (hence total 10 units)
3	Necessary standard 19" mounting racks to accommodate all analyzers and necessary accessories (cylinders, calibrator, etc) with sample handling moisture removal manifold system, power distribution board, exhaust/cooling, dust filter, telescopic slides, etc

## M. OMC (OPERATIONAL AND MAINTENANCE CONTRACT):

Total Comprehensive Operational and Maintenance Contract (OMC) for 5 years for all set of analyzers, AWS, all supplied items and accessories including complete manned operation and supply of the data to central station. The OMC should include all consumable; spare parts; regular maintenance and regular operation by deputing one dedicated technical person /engineer at each station on permanent basis. These engineers will maintain all instruments, manage all consumable, keep it up to date and carry out the complete operational analysis at all 5 different stations (spread around 500-700 km area most likely to be within the indo-gangetic plane region) on routine basis. Quote separately for each year. Remember that for the first year the CMC will be free of cost for all items and hence charge only for OMC-CMC which means only operational and consumable cost. Instrument should remain operational at least 90% of the time in a year and should not remain non-functional continuously for more than 5 days in general. In case of non-compliance the OMC will be extended proportionately. The instrument should be commissioned, regularized and operational after the order is executed without any additional facility and cost to IITM excepting the infrastructure which includes well furnished laboratory space with 230V standard Indian power supply, above mentioned UPS and AC.

## INDIAN INSTITUTE OF TROPICAL METEOROLOGY PUNE 411 008

#### **GENERAL TERMS & CONDITIONS**

#### ENQUIRY NO: **PS/125/35/2009**/

- 1) The Tenderers are requested to give detailed sealed tender in their own forms in two Bids i.e.
  - Part I Technical Bid.

Part - II Commercial Bid, both the bids addressed to the Director, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, NCL Post, Pashan, Pune – 411 008, INDIA.

- 2) If a request is made to IITM, Pune for Tender Documents, a sum of Rs.1,000.00 (Rs. One Thousand only) for indigenous suppliers / Indian agents (Non-refundable) and USD 50.00 (USD Fifty only) for foreign suppliers (Non- refundable) has to be paid in the form of Demand Draft drawn in favour of The Director, Indian Institute of Tropical Meteorology, Pune enclosed in Technical Bid only. In case the bidders download the Tender Documents from the website of this Institute, no tender document fee is require to be submitted.
- 3) This tender is not transferable.
- 4) a) The Equipments are required to be installed at **IITM**, **Pune** and subsequently Training is to be provided to the concerned scientists.
  - b) Packing, Forwarding, Freight & Insurance and Commissioning Charges, if any extra may be quoted separately in Commercial Bid.
  - c) In case if your quote is F.O.R./F.O.B. basis, estimated Insurance coverage charges may please be indicated.
  - d) CIF, Mumbai value both by Airfreight.
  - e) Octroi Payment if an, the same may please be shown separately.
- 5) Cost of the items should be mentioned clearly in the Commercial Offer (Part-II) only. The optional and any other essential items / accessories required for the maintenance of the equipment for the next three years should also be specified in the offer separately.
- 6) In case of foreign quote, the Principal supplier should clearly indicate the address of the Indian Agent and percentage (%) of Agency Commission payable if any, to be paid to the Indian Agent in <u>Indian Currency</u>.
- 7) Percentage & amount of Indian Agency commission payable in Indian currency after the receipt of consignment in good condition at our Stores & satisfactory installation and commissioning of the ordered equipment on submission of copy of DGS&D registration wherever it is applicable.
- 8) Indicate the names of the Indian reputed Organizations where you have supplied the similar equipment and may attach the satisfactory performance report of the equipment from user Organization.
- 9) a) If you have supplied identical or similar equipment to other Institutes under Ministry of Earth Sciences and Ministry of Science & Technology, the details of

such supplies for the preceding three years should be given together with the prices eventually or finally paid.

b) Based on the above information IITM will have its option to obtain details of the equipment, their performance, after sales services etc. for evaluation of the tender, directly from the concerned Labs. /Scientists etc.

## 10)Fax / E-mail / Telegraphic / Telex tenders will not be considered.

- 11)All the Bank Charges inside and outside India, including opening of LC, communication, confirmation, amendments etc., if any to Beneficiary's Account only. This may please be noted.
- 12)Details of services rendered by you as well as after-sales services offered by you are to be made clear in the tender.
- 13)The Tenderer's conditions printed on the tender or otherwise sent along with the tender shall not be binding on IITM.
- 14) The vendor should have appropriate facilities and trained personnel for supply, installation, commissioning and warranty-maintenance of the equipment to be supplied. Detailed information in this regard may be furnished.
- 15)Delivery Period: As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to.
- 16) Details regarding terms of payment including period of warranty. However we prefer to release the payment on BILL Basis (excluding Indian Agency Commission) after receipt of consignment in good condition and satisfactory installation, and commissioning thereof. Alternatively, depending upon the value and foreign exchange regulations the payment can also be considered through Sight Draft / Letter of Credit through the State Bank of India for the order value excluding the Indian Agency Commission. However, the detailed payment for Sight Draft / Letter of Credit is mentioned at clause No. 26 (B) & (C) of this tender terms and conditions.
- 17)Supply means "Supply, Installation, Commissioning and satisfactory demonstration of the whole system and training". If any charges extra for Installation, Commissioning and training, the same should be specified in the commercial offer.
- 18)Kindly attach a copy of your latest DGS&D, New Delhi registration Certificate under the compulsory Scheme of Ministry of Finance regarding the registration of Indian Agent of foreign supplier wherever it is applicable.
- 19)a) The Tenderer is required to furnish the Permanent Account Number (PAN) Allotted by the Income Tax Department. If registered with the National Small Industries Corporation, the registration number, purpose of registration and the validity period of registration' etc. should also be provided in Technical Bid for Indian Agents.

- b) A copy of latest Income Tax Clearance Certificate from Income Tax Department (INDIA) for Indian Agents.
- 20)In case of foreign quote, the address of Principal's / Manufacturer's and their Banker's details should be furnished.
- 21)The item should be supplied with manuals and the manuals including technical / Electronic drawings / circuit diagrams should be complete in all respects to operate the system without any problem.
- 22) The import license is covered under OGL policy of 2004 2009.
- 23)a) In case of Indigenous Items the offer should. contain the Basic Price and percentage of Excise Duty should be shown separately, since IITM, Pune is exempted from payment of Excise duty vide Govt. Notification No.10/97-Central Excise dated 15t March, 1997.
  - b) IITM is exempted from payment of Custom Duty vide Govt. Notification No.51/96-Customs dated 23<sup>rd</sup> July, 1996. However as per the Govt. of India further notification No.24/2002-Customs dated 15t March, 2002 and notification No.19/2006-Customs' dt. 01.03.2006 Custom Duty is levied on all imports meant for IITM. Since the suppliers are requested to quote only on FOB basis freight, insurance and custom duty as applicable to R&D Institutions will be paid by IITM.
- 24)Tender must clearly indicate the features offered unit price, VAT tax, transport, transit insurance, installation charges. Institute cannot furnish any concessional certificate for exemption or reduction in VAT tax or any other duty / tax. The vendor should mention the price of the equipment and the duties / taxes to be paid such as customs duty / excise duty / VAT taxes etc. separately.
- 25)a) No advance can be paid.
  - b) PAYMENT: 90%' payment shall be made by Sight Draft / an Irrevocable Letter of Credit established in favour of' the supplier through the State Bank of India, Main Branch, Camp, Pune 411 001 (India) for the order value, excluding the Agency Commission due to the Indian Agents, against the presentation of original Shipping documents. Balance 10% will be released after completion of satisfactory installation, commissioning, demonstration of the whole system, after imparting training and upon receipt of Bank Guarantee from nationalized bank for 10% of total Order value towards performance security to be valid for one year from the date of installation. However Letter of Credit/Sight Draft arrangement will be made for 100% order value.

The Agency Commission to the Indian Agent will be paid only after successful installation, commissioning and satisfactory demonstration and acceptance of the items ordered for by the end user.

c) For Indigenous items, 90% payment shall be made against delivery, installation, commissioning and on acceptance as per Purchase Order at site and balance 10% shall be made after receipt of performance Bank Guarantee from nationalized bank for 10% of the total order value, to be valid for entire period of warranty including extension if any. If no Bank Guarantee is given, the balance 10% will be paid after assessing, after sales service during warranty period i.e. payment after warranty period.

- 26) The prices quoted should be firm and irrevocable and not subject to any change whatsoever, even due to increase in cost of raw material components and fluctuation in the foreign exchange rates and excise duty.
- 27) The Tenderer has to state in detail the Electrical Power/UPS requirements, floor Space, head room, foundation needed and also to state whether Air-conditioned environment is needed to house the system and to run the tests. i.e. pre-installation facilities required for installation may please be intimated in the technical bid.
- 28)**INSTALLATION**: Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.
- 29) Acceptance tests to be prescribed later will be carried out after installation and the items will be taken over only after successful completion of the acceptance tests.
- 30)Tenders addressed to the Director, Indian Institute of Tropical Meteorology, Pune 411008 are to be submitted for each item in duplicate in double cover, under two bids system. Superscribed with Tender No. **PS/125/35/2009** for purchase of due on **29 October 2009.**
- 31)The tenders must be clearly written or typed without any cancellations / corrections or overwriting.
- 32) The tenders will be received in the Institute till **29 October 2009** up to **13:30 hrs.** and shall be opened on **29 October 2009** at **15:00 hrs.** in presence of the tenderers or their authorized agents who wish to be present.
- 33) IITM will not be responsible:
  - a) For delayed / late quotations submitted / sent by Post / Courier etc.
  - b) For submission / delivery of quotations at wrong places other than the Office of Director, IITM, Pune,
- 34)In case of Foreign Quote, the mode of dispatch should be by Air Post Parcel/Ocean Freight/Air Freight (By Air India Freight) and on Freight to-pay basis only. The approximate dimensions of the packages and weight of consignment are to be indicated.
- 35) The makes / brand and name and address of the manufacturer, Country of Origin, Country of Shipment and currency in which rates are quoted are to be mentioned.
- 36) The Technical Bid should accompany with complete specification, Manufacturer's name, address and relevant Technical Literature/Brochures with Warranty Terms.
- 37) The payment of local currency portion shall be payable in equivalent Indian Rupees, within 30 days after the receipt of the equipment in good condition and after satisfactory installation and commissioning and demonstration.
- 38) The tender / quotation / offer submitted by you should be valid for a minimum period of **One Hundred Eighty (180) days** from the date of opening the tender.

- 39) The quotation should be only in Indian Rupees for indigenous items. In case of foreign quote, the vendors may quote their rates in, Indian Rupees as well as in Foreign Currency.
- 40) The bidder who submits the tender on behalf of their principals should produce documentary evidence in support of their authority to quote or submit proforma invoice of their principals.
- 41)Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site after site readyness.
- 42)IITM will not provide any accommodation/transportation for the Engineers/ Representatives for attending Installation, Commissioning and Demonstration Work. It is the absolute responsibility of the Principal Supplier/Indian Agent to make their own arrangements.

#### 43) WARRANTY/GUARANTEE:

- (a) The equipment is to be guaranteed for trouble free performance during OMC period after installation. Supplier shall finally warrant that all the stores, equipment and components supplied under the ORDER shall be new and of the first quality according to the specifications and shall be free from the defects (even concealed fault, deficiency in the design material and workmanship). The defects, if any, during the guarantee period are to be rectified free of charge by arranging free replacement wherever necessary. Further, the technical specifications and requirements may also be verified and quoted accordingly.
- (b) Instrument should remain operational at least 90% of the time in a year and should not remain non-functional continuously for more than **5 days** in general and not more than 10 hours during most critical period Oct 1-15, 2010 during which CWG-2010 will be held. In case of non-compliance the OMC will be extended proportionately. The instrument should be commissioned, regularized and operational after the order is executed without any additional facility and cost to IITM excepting the infrastructure which includes well furnished laboratory space with 230V standard Indian power supply.
- 44) Details of onsite warranty, agency who shall maintain during warranty and undertake Operational Comprehensive Service Maintenance Contract (OMC) beyond warranty shall be given in the offer. In case of foreign quote, the Indian Agent who shall maintain during warranty and AMC / OMC beyond warranty shall be given in the Technical Offer.
- 45) The supply of spare parts is to be guaranteed at least for a period of 10 years after the supply of the equipment.
- 46)Please mention that during warranty period who will maintain system/ equipment / instrument. Indicate the name of firm, address, contact person, phone no. and fax no. etc in your technical bid.
- 47) After successful installation what will be the minimum down time of equipment/instrument in case of breakdown. If the identified firm or person fails to put

the system into working condition what is the further alternative course of action suggested by you to adhere to minimum down time.

- 48)Warranty period will stand extended for a period of total downtime of the equipment.
- 49) After warranty period (post warranty) who will maintain equipment / instrument. Indicate the name of Firm, address, contact person, phone no. And fax no. etc in your technical bid.
- 50)Kindly mention the charges separately for optional item in **'K'** of the Tender Document (Technical Specifications) in **commercial bid** (for post warranty period).
- 51)No sub-contracting will be allowed for installation or maintaining system/ equipment / instrument during or after warranty period.
- 52)You have to quote rates for AMC / OMC, if any, only in commercial bid.
- 53) Any upgrade in Operating System (OS) and associated other software during the warranty period should be supplied free of charge.
- 54) Discount offered should be mentioned clearly in the commercial bid only.
- 55) The Tenderers are requested to quote for Educational Institutional Price for Equipment and Software, since we are eligible for the same.
- 56) This Institute is an autonomous scientific research organization under the Ministry of Earth Sciences and is a recognized centre for studies leading to M.Sc. and Ph.D. of the University of Pune and various other Universities. As such, all possible concessions / discounts / rebates applicable for educational Institutions may be given.
- 57)You have to submit two separate bids in two separate envelopes and you may keep both the bid envelopes in an envelope for sending to us.

One envelope will contain only the TECHNICAL SPECIFICATIONS of the indented equipment.

Another envelope will contain only the financial bid in which price, maintenance, AMC / OMC etc. and any other information, which has financial implications, will only be given.

The main envelope, which will contain both the bids, should be super scribed with our tender enquiry No.**PS**/125/35/2009 due on 29 October 2009.

- 59) The technical bids will be opened on the specified due date in the presence of tenderers who wish to be present & the financial bids of only those bidders will be opened whose technical bid is found suitable by us.
- 60) The Date and Time of opening for Part-II (Commercial Bid) will be intimated only to prequalified and technically acceptable Tenderers for the item at a later date.
- 61)a) The Earnest Money Deposit of **Rs.6,00,000.00 (Rs. Six Lakhs only)** must be paid / sent along with your technical bid in the form of a Demand Draft, Banker cheque

or Bank Guarantee (from a Nationalized Bank only) drawn in favour of The Director, Indian Institute of Tropical Meteorology, Pune payable at Pune, otherwise your technical & financial bids will not be considered at all. The Earnest Money of successful bidder will be returned only after installation, commissioning, satisfactory demonstration and on acceptance of the equipment by the user Scientist / HOD as per the terms of our purchase order. If the successful bidder fails to fulfill the contractual obligations before the due date, he will forfeit the EMD.

The Earnest Money of the unsuccessful bidder whose technical bid has not been found suitable will be returned within 15 days after receipt of Technical Committee recommendations.

- b) Those who are registered with Central Purchase Organization (e.g. DGS&D), National Small Industries Corporation or the concerned Ministry / Department need not to furnish EMD along with their bids.
- c) Though EMD has to be submitted by Demand Draft, Banker's Cheque or Bank Guarantee, we prefer to have Bank Guarantee for easy return to the bidders once a decision is taken by IITM. (Specimen of Bank Guarantee is enclosed at Annexure 'A').
- d) Tenders not accompanied with Demand Draft I Bank Guarantee towards "Earnest Money Deposit" will summarily be rejected.
- 62)a) Tenders, which are submitted without following the Two-Bid Offer System, will summarily be rejected.
  - b) Unsigned Tenders will also be rejected.
  - c) Part and incomplete tenders are liable to be rejected.
- 63) If the supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of one percent value of the Purchase Order awarded, per every week delay subject to a maximum of 10% for every week beyond the due date and such money will be deducted from any money due or which may become due to the supplier.
- 64)Goods should not be dispatched until the Vendor receives a firm order.
- 65)Please indicate page nos. on your quotation ex. If the quotation is containing 25 Pages, please indicate as 1/25, 2/25, 3/25 -----25/25.
- 66) The purpose of certain specific conditions is to get or procure best Equipment / service etc. for IITM. The opinion of Technical Committee shall be guiding factor for Technical short listing.
- 67)Firms which have already supplied similar equipment to IITM and have not completed required installation / commissioning / after sales service / warranty replacements etc. such firms offers will not be considered for further evaluation and no enquiries thereafter will be entertained.
- 68)In the event the Manufacturer / Supplier proposes for amalgamation, acquisition or sale of its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfillment of contractual obligations i.e. supply, installation, commissioning, warranty, maintenance/replacement of spares accessories etc. with the same cost / ordered value while submitting your bid, you may confirm this condition.

69) Corrupt or Fraudulent Practices.

- A) IITM requires that the bidders/suppliers/ contractors under this tender, observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, IITM:
  - i) Defines for the purposes of this provision, the terms set forth as follows:
    - a) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of the public official in the procurement process or in contract execution; and
    - b) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or a execution of a contract to the detriment of IITM, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive IITM of the benefits of the free and open competition;
  - ii) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt of fraudulent practices in competing for the contract in question;

B) IITM will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

- 70)Conditional Offers will not be considered.
- 71)All disputes are subject to exclusive jurisdiction of Competent Court and Forum in Pune, India only.
- 72) The Director, Indian Institute of Tropical Meteorology, Pune 411 008, India reserves the right to accept any tender in full or in part or to reject the lowest or any or all tenders without assigning any reason.
- 73)In case of any dispute regarding part-shipment, non-compliance of any feature etc., The Director, Indian Institute of Tropical Meteorology, Pune will be the final authority to decide the appropriate action and it will be binding on the Vendor.
- 74) Last Date and Time for receipt of Tenders: Up to 13.30 hrs. on 29 October 2009.
- 75) Date and Time of opening of Tenders: At 15:00 hrs. on 29 October 2009. (Part - I Technical Bid only)

(S. R. Nirgude) Senior Technical Officer-II For Director Email: nirgude@tropmet.res.in

## **BID SECURITY FORM**

Whereas 1 (hereinafter called " the Bidder") has submitted its bid dated (date of submission of bid) for the supply of \_\_\_\_\_\_ (name and/or description of the goods)(hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE \_\_\_\_\_\_(name of bank) of (name of the country), having our registered office at (address of bank)(hereinafter called "the Bank"), are bound unto (name of Purchaser) (hereinafter called "the Purchaser") in the sum of \_\_\_\_\_\_ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Seal~d with .the Common Seal of the said Bank this \_\_\_\_ day of 20\_\_\_\_\_ THE CONDITIONS of this obligation are:

- 1. If the Bidder withdraws it's bid during the period of bid validity specified by the Bidder on the Bid Form; or
- 2. If the Bidder, having been notified of the acceptance of it's bid by the Purchaser during the period of bid validity:
  - a) fails or refuses to execute the; Contract Form if required; or
  - b) fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, Without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to one year after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the Bank) Name of Bidder.