

INDIAN INSTITUTE OF TROPICAL METEOROLOGY
PASHAN, PUNE-411008 (INDIA)
(An Autonomous Body under the Ministry of Earth Sciences, Govt. of India)

TENDER NO.: PS/TENDER/02/2013

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:

“AIR QUALITY AND WEATHER MONITORING SYSTEM (AQMS) FOR SYSTEM OF AIR QUALITY FORECASTING AND RESEARCH FOR MUMBAI (SAFAR-MUMBAI)” – 10 SETS (TURNKEY JOB)

Last date of receipt of Tender at IITM, Pune : **14 AUGUST 2013 at 12:00 hrs.**
Opening of Tenders (Technical Bids only) : **14 AUGUST 2013 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

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AQMS for SAFAR-MUMBAI

The Manufacturer of Ambient Air 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 minimize the time spent on maintenance and calibration. During establishing SAFAR system, following criteria /features must be adopted and the manufacturers must comply the same in order to provide high quality data.

1. Since the system is to be operated & used for data collection in and around Mumbai for the purpose of Air Pollution Forecasting in the Mumbai region, it is highly desirable that the manufacturer of the prime analysers (SO₂, NO_x, CO, O₃, PM, 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 /NATA accreditation & has executed projects with Operation & Maintenance Contracts of Ambient Air Quality Monitoring Analysers in India. Details of such projects must be enclosed in the offer.
2. The analysers (SO₂, CO, O₃, NO_x, NO₂, Hg, PM₁₀, PM_{2.5}, BTX, VOCs), Gas calibrator, zero air generator, Data Acquisition Systems and Data Collection and Reporting software should preferably be manufactured by one manufacturer to provide substantial control over the quality of the system and to allow the design of the system to be best suited for application. The analysers used in the monitoring system must function efficiently in the temperature range of 2°C - 48°C as the system is to be operated in mobile module in the Mumbai region where expected annual range of temperature range of 4°C - 45°C.
3. All analysers used in the system must be designed on US-EPA Equivalent Reference Methods. A certificate of US-EPA approval must be enclosed. Where US-EPA approvals are not applicable, equivalent or other International Certificate can be provided.
4. All analysers in the system must have technical sophistication to be connected digitally to Data Acquisition System for providing substantial advantages in communication.
5. The Data Acquisition System must have features like automatic data validation software complete with data capture percentage.
6. All analysers should have RS 232, RS 422 and USB ports.
7. The Data Acquisition System should operate on Windows 7/ Windows 8 Platform and be of a "Client/Server" configuration for improved reliability.
8. Real time or averaged data must be viewed quickly and easily through a remote CLIENT interface on the central computer
9. The Data Acquisition System feature calculated channels including nested calculations, vector averaging and rolling averages.

10. The System must support remote communication with full user interface from anywhere in the world via a TCP/IP network or dial up network.
11. Data Evaluation and Reporting Software must have been upgradeable to a multi-user version.
12. The Data Evaluation and Reporting Software must be able to collect and process data from a wide variety of data acquisition systems & analysers.
13. The engineer responsible for installation and commissioning of the station must provide on site training for operation, maintenance & data validation as per ISO9001/ISO17025 Quality Accreditation/ NATA accreditation procedure. This provides with hands-on experience and provides them with an understanding on how the system is integrated.
14. The manufacturer should provide the advice and services of his experts in preparing air pollution forecast if they have rendered such consultations and services in connection with Ambient Air Quality Monitoring Systems for air quality data interpretation. The experts from the company who have supplied the Air Quality Monitoring equipments, must visit all the stations periodically to ensure that Air quality monitoring system is performing well and providing useful data.

Note: Supplier should categorically provide detail feedback on each and every point mentioned above (Total 14) in chronicle order related to compliance (yes) /non-compliance (no) or any other explanation/justification in a tabular form.

A. SPECIFICATIONS FOR SULPHUR DIOXIDE ANALYSER -10 sets		
1	Principle	UV Fluorescente
2	General Range	User selectable and automatic
3	Concentración Range	0-1000 ppb
4	Lower Detectable Limit	≤1 ppb
5	Zero drift	< 1 ppb for 30 days
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, USB and Compatible with Windows-7/8
12	Power supply	230 V AC - 50 Hz
13	Manual	Instruction & operation manuals
14	Approval	US-EPA approved

B. SPECIFICATIONS FOR OZONE ANALYSER -10 sets		
1	Principle	UV Photometry
2	General Range	User selectable and automatic
3	Concentración Range	0-1000 ppb
4	Lower Detectable Limit	≤0.5 ppb
5	Zero drift	< 1 ppb for 30 days
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, USB and Compatible with Windows-7/8
12	Power supply	230 V AC - 50 Hz
13	Manual	Instruction & operation manuals
14	Calibration unit	In Built Calibration unit with internal zero and span check feature
15	Approval	US-EPA approved

C. SPECIFICATIONS FOR NO_x -ANALYSER -10 sets		
1	Principle	Chemiluminescence
2	General Range	User selectable and automatic
3	Concentration Range	0-20 ppm
4	Lowest detectable limit	< 0.4 ppb
5	Zero drift	< 0.1 ppm per day
6	Response time	Programmable (30 s to 90 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)
11	Port & compatibility	RS-232 or RS-422, USB and Compatible with Windows-7/8
12	Power supply	230 V AC - 50 Hz
13	Manual	Instruction & operation manuals
14	Approval	US-EPA approved
15	NH₃ –ANALYSER (Either as an attachment to NO _x or separately). If quoted separately then quote 10 each for NO _x and NH ₃ .	Using External Converter with NO _x Analyzer or separate NH ₃ <ul style="list-style-type: none"> • Range: 0 – 1 ppm • Lower Detectable Limit: 0.001 ppm • Span Drift: < 1% per week • Zero Drift: < 1% per week • Linearity: 1% Full Scale • Communication: RS 232/ RS 422

D. SPECIFICATIONS FOR NO₂ Only-ANALYSER - 5 sets		
1	Principle	Cavity Enhanced Laser Absorption Spectroscopy/ Tunable Infrared Laser Differential Absorption Spectroscopy (TILDAS)/ Cavity Attenuated Phase Shift (CAPS)/ Differential Optical Absorption Spectroscopy (DOAS) for Direct measurement of NO ₂
2	General Range	User selectable and automatic
3	Concentration Range	0-1 ppm
4	Lowest detectable limit	100 ppt (2 σ)
5	Zero drift	< 0.1 ppm per day
6	Response time	Programmable (5 s to 90 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)
11	Port & compatibility	RS-232 or RS-422, USB and Compatible with Windows-7/8
12	Power supply	230 V AC - 50 Hz
13	Manual	Instruction & operation manuals
14	Calibration unit	Inbuilt unit for zero gas calibration and NO _x (Using NO ₂ permeation bench & Tube)
15	Approval	US-EPA approved or Equivalent International Agency approval if available

E. SPECIFICATIONS FOR CO ANALYSER – 10 Sets		
1	Principle	Non Dispersive Infra Red with Gas Filter Correlation
2	General Range	User selectable and automatic
3	Concentration range	0-200 ppm
4	Lowest detectable limit	≤0.5 ppm
5	Zero drift	<0.1 ppm per day
6	Span Drift	1% of FS per day
7	Response time	Programmable (10 s to 80 s)
8	Averaging time	Programmable (1 min to 24 hrs)
9	Internal memory	Suitable for data storage (more than 5 MB)
10	Data storage	Built in analyzer (should store 1 min average for more that 5 day)
12	Port & compatibility	RS-232 or RS-422, USB and Compatible with Windows-7/8
13	Power supply	230 V AC - 50 Hz
13	Manual	Instruction & operation manuals
14	Calibration unit	Inbuilt unit for zero gas calibration with solenoid valve for external span gas cylinder
15	Additional CO2 Analyzer (Either as an attachment to CO or separately). If quoted separately then quote 10 each for CO and CO2.	Specifications for CO₂: Carbon dioxide measurement inbuilt in CO-analyser box or independent Measurement range 50 to 2000 ppmv Accuracy (including repeatability, non-linearity and calibration uncertainty) ± (2 % of range + 2% of reading) Long-term stability <±5 % of range / 5 years Response time (63%) 1 minute

F. SPECIFICATIONS FOR BENZENE, TOULENE, XYLENE ANALYSER - 8 sets

1	General Range	0 - 100 ppb
2	Type	Gas Chromatograph with PID detector
3	Cycle	Min 15 min
4	Averaging time	Programmable (10 min to 24 hrs)
5	Internal memory	Suitable for data storage (more than one month)
6	Data storage	Built in analyzer (should store 1 min average for more that 5 day)
7	Port & compatibility	RS-232 or RS-422, USB and Compatible with Windows-7/8
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	Compatible with Windows-7/8
11	Calibration unit	Calibration switch for zero and span calibration unit with auto calibration or separately
12	Approval	US-EPA approved/ TUV Germany/ Any International Agency

G. SPECIFICATIONS FOR METHAE-NON-METHANE HYDROCARBON ANALYSER -4 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.	Type	Should be able to separate CH ₄ 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

H. SPECIFICATIONS FOR PM-ANALYSER -11 sets

1	General Range	PM ₁₀ Measurement using Beta Gauge Absorption Principle. The analyzer to measure also PM _{2.5} preferably be in same Instrument simultaneously. If not then 2 separate Instruments to be provided for PM10 and PM2.5 (in later case, 11 sets each). 1set to remain independent for field measurements at Pune.
2	Concentration Range	0.1 µg/m ³ - 10 mg/m ³
3	Lowest detectable limit	1 µg/m ³
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, USB and Compatible with Windows-7/8
8	Power supply	230 V AC - 50 Hz
9	Manual	Instruction & operation manuals
10	Calibration unit	Inbuilt Calibration unit with auto calibration or separately
11	Approval	US-EPA approved or certification from any other recognized International Agency.

I. SPECIFICATIONS FOR MULTI POINT GAS CALIBRATOR (MGC) -10 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 using Mass Flow Controller
5	Manual	Instruction and Operation Manual
6	Calibration Gases, Cylinders & Regulator	Cylinder of Capacity 10 liter with SS Regulator Separate cylinders for SO ₂ , NO ₂ , CO, Benzene must be provided for each station

J. SPECIFICATIONS FOR ZERO GAS GENERATOR -10 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
Scrubbers Hopcalite Purafil Charcoal Molecular Sieve Power Pressure Flow		Removal of CO (<0.1 ppb) Removal of NO, NO ₂ , NO _x (<0.1 ppb) Removal of SO ₂ , H ₂ S, Ozone (<0.1 ppb) Removal of H ₂ O (Dew point -15 C) 220 volts AC, 50 Hz (optional 110VAC) Up to 200 KPA 0-9 LMP

K. SPECIFICATIONS FOR MURCURY ANALYSER - 1 set		
1.	Analyser	Measurement of Total Gaseous Mercury in Ambient Air
1	Mercury Collector	Gold Trap
2	Detection Limit	< 0.1 ng/m ³
3	Sample Volume Determination	Electronic mass flow mete
4	Sample Duration	10s-2.5min TO 15-60 min.
5.	Measuring Range	0.1 ng/m ³ to ~2000 ng/m ³
6.	Accessories	All required for fully operation
4	Data Output	Via RS232 to a computer (PC or Laptop to be included in quote. It should be compatible with Windows XP/7 along with licensed Office-2010)
5	Power Supply	Compatible with 230V AC - 50 Hz . If not comparable then proper branded converter should be provided for Indian power supply.
6	Calibration	Auto Calibration
7.	Spares	All spare parts for 5 years of operation

L. SPECIFICATIONS FOR UVE radiometers -10 sets	
UVE radiometer Spectral Range	ISO 17166:1999; CIE S 007/E-1998
Output range	0 to 0.6 W/m ²
Zero offset (in darkness) , Response time (95%) and power supply	< 10 mV, < 1.5 s and standard Indian 230V respectively
Non-linearity (over full range) and directional error	< 1 % , and < 2.5 % (up to 70 ° zenith angle)
Additional Accessories: Calibration data and relevant software	(1) Nominal sensitivity, spectral response, solar zenith angle corrections, ozone column corrections. UVIATOR or equivalent software, PC based latest configuration data acquisition system, mast mounting device, Horizontal Support, 10 meters cable & 4-20 mA analog output to integrate with the DAS.

Note: 5 have to be installed at Mumbai and rest 5 have to be installed at Delhi.

M. SPECIFICATIONS FOR CCD Imaging System -4 sets	
Image System and Sensor	Outdoor IP Fixed Megapixel; 2-megapixel Progressive, 1/2.5" CMOS/CCD sensor
Lens Type & Min Luminous	½ inch CMOS or CCD with 6 mm; 0.5LUX(Color) 0.001Lux(Black), IR LED on
Type	IP66 Grade Day & Night with 48 pcs of IR Led, IR distance ~25M, auto-focus, digital zoom support, motion detection support
Video Compression; Video Streaming	H.264 , Mpeg-4 , Mjpeg; Simultaneous H.264 + H.264
Resolution	H.264 : Full HD 1080p/HD 720p/SXGA/D1/VGA/QVGA/CIF, MJPEG : Full HD 1080p/HD 720p/SXGA/D1/VGA/ QVGA/CIF
Frame rate and shutter speed	HD 25/30 fps, Full HD 30 fps, shutter speed 1~1/10000 sec.
Audio Input /Audio Output/ Audio talk-back, Audio compression	1channel linear input /1channel linear output/ channel Audio In port1, mic in Audio compression G.711/G.726
Audio Connector	Stereo phone jack, Ø _3.5mm
Supported Protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS, ONVIF
Security	HTTPS, IP Filter, IEEE 802.1X
Browser Support	Internet Explorer (6.0+), Chrome, Firefox, Safari
System interface & SD Card Interface	10Base-T/100Base-TX; Support Video storage and image snapping; SD2.0 standard, max storage 32G to be provided
Micro SD	SDHC support
Alarm in / out, Tampering Alarm	5 V 10KΩ pull up (alarm in), Photo Relay Output 300VDC/AC , Tampering Alarm ON/OFF

Junction Box and LAN Protector	IP 66 grade outdoor enclosure, IP65 weather proof rating. It should have enough space to accommodate all the equipment like lan protector, isolation transformer, provision for mounting; suitable connections for terminating all types of cables utilized. LAN protector – Device to protect Ethernet, Isolation transformer – 2amp
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N. SPECIFICATIONS FOR AUTOMATIC WEATHER STATIONS (AWS) – (10+21) = 31 Nos.
1. Data Logger
Provision for storing and archiving the data from all sensors through software to central AQMS server in desired format
2. Wind Speed Sensors:
Range: 0 to 125 mph
Resolution: better than 0.1 mph
Accuracy: Around ± 1 mph or better
3. Wind Direction
Range: 0 to 360 °
Resolution: better than 0.1%
Accuracy: $\pm 3\%$
Starting threshold: 1.2 mph or better
4. Temperature
Range: - 40 ° to 60 °C
Resolution: better than 1 °F
5. Relative Humidity
Range: 0 to 100% RH
Accuracy: $\pm 3\%$ or better
6. Pressure
Range: 920 – 1080hPa
Accuracy: ± 0.2 hPa or better
Resolution: 0.2hPa or better
7. Rain Gauge
Resolution: 0.02 inches/tip or better
Accuracy: $\pm 4\%$ or better
Max. rate: Unlimited
8. Meteorological Mast :
Telescopic Hand Pump operated Meteorological Mast made of Anodized Aluminium of Extendable Height 6 meters with all support to be provided
IMPORTANT INSTRUCTION:
<p>(1) 10 Sets of Sensors with Data Logger to be mounted on top of the Walkway Shelters on the Telescopic Mast alongwith AQMS.</p> <p>(2) (2) For additional 21 sets of AWS, following should be included:</p> <p>(3) (a) Rack Cabinet with all Hardware, (b) Software, (c) Air-conditioner’ (d) Data Logger suitable for outdoor field mounting with IP 65 protection (e) Pole or telescopic mast (mast of minimum 6 meters in height) to be provided. (f) Data communication using GPRS or by other mean to transmit data remotely in real time to central stations should be there.</p> <p>(4) Vendor to quote separately for this.</p>

- (5) **Necessary foundation for mounting the Pole for the Rack Cabinet and rain guage etc also to be provided for above cabin mount .**
- (6) If mini A/C need to be provided for additional 21 outdoor A/C mountings (in the IP65 cabinet) then quote separately for the same. No covered room will be provided for these 21 AWS and it will be in the open field.
- (7) All SIM recurring rental and Modem charges must be borne by vendor.

O. SPECIFICATIONS FOR LOCAL AND CENTRAL DATA ACQUISITION, CONTROL SYSTEM & REMOTE NETWORKING

1	GPRS /3G Modems as required. Please note that no internet connectivity will be available in all 10 remote stations and 21 AWS. However, internet facility will be provided by IITM at the central station at IITM, Pune and IMD, Mumbai.
2	GPRS /3G networking 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 GPRS /3G network with software for the data analysis and visualization.

LOCAL STATIONS: 10 for AQMS

1. Should connect through RS232 and USB communication ports.
2. Should able to transmit data and /remote control via modem/GSM network.
3. Should provide GUI windows based application software for continuous air monitoring.
4. Should provide calibration windows for analyzer calibration from computer.
5. Main window for real time display major parameters & status of all analyzers & sensors.
6. Control panel window for control of each analyzer.
7. Real time status and diagnostics for maintenance people.
8. Programmable down loading of data.
9. Should provide data storage capacity for at least 3 years.

CENTRAL STATION: 3 (2 for Mumbai and 1 for Pune as mirror)

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.
2. Data communication and acquisition system should handle the data transmission /reception from 10 different monitoring stations of an ambient air quality network and receive incoming messages / signals from remote site. **In addition** to this it should also provide the similar connectivity and data control and transmission of 21 different automatic weather station data which are being installed there independently.
3. Central station software should manage 10 remote air quality-monitoring stations & 21 AWS.
4. Should provide data management, analysis and reporting.
5. Should compatible with Windows 7/8 or higher version
6. Should provide data storage capacity for at least 3 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.
9. The customized software interface program should be provided which can store and

transmit the data in the real unit as well as in AQI format (mathematical formula will be provided by IITM) to FTP as well as Display servers in the format (probably in 'cvs') as per the requirement of display company. This needs to be updated every 30 minutes to 1 hour in real time.

10. This software as well as standard data acquisition software should be maintained regularly and should have enough licenses to load in real and proxy servers.

(a) Configuration of remote data acquisition machine for AQMS - 10 Numbers

PROCESSOR:

- 2nd Generation Intel® Core™ i5-2400 Processor (3.10GHz,6MB) or higher
- Chipset: Intel(R) Q67 Express Chipset
- OPERATING SYSTEM: Genuine Windows (R) 7 Professional 64 bit (English)
- MICROSOFT SOFTWARE: Licensed Microsoft(R) Office Business edition 2010
- DISPLAY: 17in HAS Wide Monitor, VGA/DVI
- MEMORY: 4GB (2x2GB) Non-ECC DDR3 1333MHz SDRAM Memory
- HARD DRIVE (PRIMARY): 1TB 7200 RPM 3.5" SATA Hard Drive
- OPTICAL DRIVE: 16X Max DVD-ROM Drive
- KEYBOARD: USB Keyboard
- MOUSE: USB MOUSE with PADS
- CARD READER: 19-in-1 Media Card reader
- SOFTWARES and SYSTEM RECOVERY: Windows(R) 7 Professional 64bit Media Kit (Multi-Language).
- USB Ports: Total 4; Multimedia: Multimedia Speaker with MIC

(b) Configuration of central data acquisition machine /workstation = 3 Numbers

- Branded PC with Windows 8 Professional 64
- Intel® Core™ i5-4570S with Intel HD Graphics 4600 (2.9 GHz, 6 MB cache, 4 cores)
- 500 GB 7200 rpm SATA
- 4 GB 1600 MHz DDR3 SDRAM
- Intel HD Graphics 4600
- Slim Tray-load Super Multi DVD writer
- Office Professional latest version.

(c) Configuration of FTP server = 3 Numbers

System feature

- Processor Intel® Xeon® E5-2620 (6 core, 2 GHz, 15MB, 95W)
- Operating System: Windows server Latest Version
- Number of processors 1
- Processor core available 6
- Form factor (fully configured) 5U
- Power supply type (1) 460W Gold hot plug power supply kit Common Slot
- Memory, standard 8GB (2x4GB) RDIMM
- Memory slots 24 DIMM slots
- Memory type 1R x4 PC3L-10600R-9
- Included hard drives None ship standard; Supports up to (8) SFF SAS/SATA
- Optical drive type Half-Height SATA DVD-ROM
- Network controller 1Gb 331i Ethernet Adapter 4 Ports per controller
- Storage controller (1) Smart Array P420i/512MB FBWC

- Infrastructure management iLO Management Engine, Insight Control (optional) (Equivalent to HP ProLiant ML350p Gen8 E5-2620 1P 8GB-R P420i Hot Plug 8 SFF 460W PS Base Svr (646676-001) -138078.18)
- Office latest licensed version for above operating system

(d) Configuration of WEB server = 1 Numbers

- Branded PC with Windows 8 Professional 64
- Intel® Core™ i5-4570S with Intel HD Graphics 4600 (2.9 GHz, 6 MB cache, 4 cores)
- 500 GB 7200 rpm SATA
- 4 GB 1600 MHz DDR3 SDRAM
- Intel HD Graphics 4600
- Slim Tray-load Super Multi DVD writer
- Office Professional latest version.

(e) Portable backup DAS system = 1 (One) number

- Intel® Core™ i7 Processor
- Windows 8 Pro
- Display : 13.3 (33.8 cms); Full HD 1920 x 1080; touch screen
- Memory : 4 GB
- SSD : 256 GB
- Up to 17 hours of battery life with optional sheet battery (SONY VAIO® Ultrabook™ P13/11 (SVP1321XPNB) or equivalent)
- Office latest licensed version for above operating system

(f) Permanent backup DAS System = 1 (One) number Desktop

- iMAC an all-in-one design for a small footprint. 27-inch (viewable) LED-backlit glossy widescreen TFT display with support for millions of colours; Resolution: 2560x1440 pixels
- Processor: 3.1GHz quad-core Intel Core i5 with 6MB on-chip shared L3 cache Configurable to 3.4GHz quad-core Intel Core i7
- 4GB (two 2GB) memory; 1TB (7200 rpm) HDD
- AMD Radeon HD 6970M graphics processor with 1GB of GDDR5 mem
- Full-size keyboard with 78 (US) or 79 (ISO) keys, including 12 function keys and 4 arrow keys (inverted “T” arrangement)
- Magic Mouse: Smooth, seamless Multi-Touch surface with support for simple gestures (scrolling and swiping).
- Magic Trackpad: Solid-state scrolling trackpad for precise cursor control;
- Wireless: Latest Wi-Fi and Bluetooth technologies.
- Wi-Fi: 802.11n Wi-Fi wireless networking; 2 IEEE 802.11a/b/g compatible
- Bluetooth: Bluetooth 2.1 + EDR (Enhanced Data Rate) wireless technology
- OS X: iTunes, Time Machine, Quick Look, Spaces, Spotlight, Dashboard, Mail, iChat, Safari, Address Book, QuickTime, iCal, DVD Player, Photo Booth, Front Row, Xcode Developer Tools and more. OS X Lion installed,
- iLife: Includes iPhoto, iMovie and Garage Band; Built-in Face Time HD camera; built-in stereo speakers, built-in microphone and headphone mini-jack.
- Connections and Expansion: SuperDrive, SDXC card slot, audio in, audio out, USB 2.0, FireWire 800, Thunderbolt, Gigab Input, Ethernet.
- Office latest licensed version for above operating system

P. SPECIFICATIONS FOR UPS /AIR CONDITIONER /RACK, ELECTRICAL WIRING, etc for AQMS- 10 sets	
1	Supply and commissioning of online Branded UPS With Minimum 4 Hour Battery Backup For all analyzer and accessories of adequate capacity to be provided (10 sets - 1 for each station) with wiring and all necessary electrical work
2	Supply and commissioning of online 5 KVA Branded UPS With Minimum 4 Hour Battery Backup for Central Station to be connected to all central station servers and room displays with wiring and all necessary electrical work (1 Number only)
3	Supply and commissioning of Branded Air Conditioner System split type of two ton capacity for all AQMS stations and central station with wiring and all necessary electrical work (2 units each) (hence total 22 units)
4	Supply and commissioning of standard mounting rack 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 poles, etc.
5.	If mini A/C need to be provided for additional 21 outdoor A/C mountings (in the IP65 cabinet) then quote separately for the same. No covered room will be provided for AWS and it will be in the open field.
6.	Electrical Cable Lying: Lying of aluminum electrical cable with earthing suitable to bring power supply from the nearest power junction for all AQMS and AWS as per the load of complete AQMS shelter and independent 21 AWS (Quote per meter rate for both categories with supply and commissioning, lying inside ground with cover, etc.) The exact amount will be calculated based on actual length which is likely to be around 3000 meters.

Q. WALKWAY SHELTER for AIR POLLUTANT ANALYSERS of SAFAR
Total Number = 11 (Eleven)

Sr. No.	Description	Specification
1a	Material of construction (Outside)	Mild Steel 1.2 mm thickness with pre-coated paint only
1b.	Material of Construction (Inside)	Marine ply with laminate (12 mm) Boiled Water Resistance Quality. Laminate of approved shade to be used for all Inside walls
2	Size	4 mtr (L) x 3.5 mtr (W) x 2.7mtr (H)
3	Door	One main door for Entrance/Exit
4	Door Size	900mm (W) x 2000mm (H) with toughened glass
5	Partition	Separate Compartment for locating UPS & Batteries to be provided
6	Wall Thickness	80 mm with Rockwool/ Glasswool
7	Roof Thickness	100 mm with Rockwool/ Glasswool
8	Base Frame	Made of ISMC 100 Channel with 50mm x 50mm x 4mm Angle
9	Floor MOC	Plywood of 12mm thickness, on GI sheet of 2 mm thick
10	Flooring	Vinyl sheet pasted on plywood (1.5 mm thick)
11	Paint shade and title	Green designed globe painted at front with IITM, MoES, CWG logos and name written as per IITM instructions.
12	Hook	I-Hook shall be provided on all the four corner to lift the shelter
13	Window	Two nos shall be provided- Double glass vacuum type
14	Illumination	4 Nos tube light - Inside shelter (250-300 Lux at working level), 4 Nos bulk head light - Outside shelter
15	Canopy	600mm (W) shall be provided at all sides
16	Inside separation	Sliding arrangement shall be provided as indicated in the drawing
17	Roof Design	Shall be design to take load of Four persons
18	Floor Design	Shall be design to take load of 100 KG/Square ft
19	Application	Outdoor
20	Location	In & around Mumbai
21	Ambient Condition	Temp: Min 2°C; Max 48°C
22	Other amenities in shelter	One Computer table (3'x2') with 3 computer chairs (armed and full back) (Standard Brand-Godrej or equivalent)
23.	Civil Work	Specify as per your specifications
24.	CMC	For 5 years including all parts and consumables (remember that instrument is already under free warranty for 1 year)
25.	Optional: Additional Civil Work	Quote separately for barricading with RPC pole (6 feet height or more), barbed thick wiring and CS exit gate around the shelter. The foundation to accommodate shelter should be concrete having dimension ~ 4.5 m (L) x 4.0 m (W) x 0.5m (H) or more
Note	<p>1. Three Holes at top shall be provided for Entry of Gas/Dust Sample tubes.</p> <p>2. At bottom there shall be holes for Cable & Drain Tube Entry/exit</p>	

R. SPECIFICATIONS FOR PORTABLE INDEPENDENT SENSORS - 20 sets

1	Sensors	To be mounted in the Rack Cabinet of AWS and integrated with Data Logger to get the Data at Central AQMS Server at IITM, Pune
2	Display	LCD with levels and exposure
3	Power Supply	Necessary 230V, 50 Hz. AC supply or Adapter
4	Sampling	Dynamic air sampling using internal fan
5	Outputs	RS 232, USB, 4-20 mA Analog
6.1	SO ₂	0-1000 ppb Range, Detection Limit 20 ppb
6.2	NO ₂	0-250 ppb Range, Detection Limit 20 ppb
6.3	NH ₃	0-25 ppm Range, Detection Limit 0.5 ppm
6.4	CO	0-20 ppm Range, Detection Limit 50 ppb
6.5	PM _{2.5}	0-500 µg/m ³ using Nephelometer, Detection Limit 5 µg/m ³
6.6	O ₃	0-250 ppb Range, Detection Limit 20 ppb
6.7	nmVOC	0-16 ppm Range, Detection Limit 10 ppb
7	Maintenance	Necessary Maintenance, replacement of Sensors, PCB's etc. to be taken care during the OMC period.

Optional Item-1 (must be quoted by all vendors):

S. SAFAR UNIFIED ONLINE DATA PORTAL

1. CMS Platform
2. For 6 cities in India (Delhi, Pune, Mumbai etc.)
3. Gathering and management of all live data (Air quality, UV Index, Weather) from all AQMS of different make[City wise] in specific format in real time.
4. Gathering of all forecasting data from different platform.
5. Multilingual Web Portal – English, Hindi (Marathi for Mumbai & Pune City)
6. Graphical View: Graphs/Plots of Air Quality & Weather Data, Comparisons of all data [all parameters, between all cities], and several combinations at one place.
7. Multimedia Contents: Video Clips, Documentaries, Audio Clips, Images or photo gallery and animations.
8. Display of data on geographical map of particular city on web portal using GIS (1x1 km resolution).
9. Alerts: Email and SMS Alerts
10. AQI / UVI Calculator: To convert raw data into AQI / UVI and vice a versa
11. Plots Drawing Facility: Plots/Charts of all data (Air Quality, UV & Weather)
12. Web Portal s Users: Common public, Administrators, Super Administrator, Scientific User, Users for web portal management.
13. Web portal visitors information- like unique visitor, their IP Address
14. Query response service
15. Search Facility
16. Static contents
17. User Interface
18. Web for mobile phone and tablets.
19. Export, Print & Email: Data/Plots in required format [word, excel, csv, pdf, and image etc.].
20. Discussion forum: Question and Answers.

T. Optional Item-2 (must be quoted by all vendors): MOBILE AIR QUALITY MONITORING STATION (AQMS)	
Sr. No.	Description
1.	Under frame: The under frame will be fabricated of MS rolled channels with 10 SWG pressed steel sections for the longitudinal supports.
2.	Structure: <ul style="list-style-type: none"> • The structure will be fabricated with steel pressed sections gusseted & cleats fastened by means of bolts and nuts/ welding. Structures painted with primer paint for anti corrosion. The entire vehicle after fabrication including installation of all the accessories dynamically balanced. • Steel used for fabrication should be as per IS 1079 • Provision of suitable attractive end structure with grills, lights etc. for cabin.
3.	Paneling: Structural work will be using MS pressed sections. Exterior paneling will be 18 Gauge Aluminium sheet & Interior paneling shall be of 20 Gauge PVC coated Aluminium sheets.
4.	Flooring: Flooring of ¾ “ thick marine plywood covered with 1.5 mm thick marble/ vinyl sheet.
5.	Insulation: Glass Wool/ Thermacol insulation of minimum 38 mm thickness for the whole body to maintain inside temperature 24 ° C +/- 2 °C under severe ambient temperature of 45 ° C
6.	Air Conditioning: Air conditioning for maintaining inside temperature of 24 ° C +/- 2 °C under severe ambient temperature of 45 ° C shall be provided in form of 2 Nos. 1 Ton Split Air Conditioners of Blue Star/ Voltas/ Samsung/ Carrier make with special mounting arrangement for Mobile Van application.
7.	Entrance: 2 entrances shall be provided – one at the side and another at the rear. The external door shall be hinged with Maruti type handles and locks for all doors.
8.	Working Table: One working table of 10’ x 2 ½ ‘ x 2 ½ ‘ size & will have sliding doors, drawers including one no. chair. Work table should be of Marine, borer proof, 18 mm thick plywood with melamine laminated top & mika sheet on outside & on the cup boards. 4 Nos. plug points 10/ 20 amps with MCB to be provided. All drawers/ shutters to be lockable shall be damped against vibration/ noise. Chair shall be with 3” cushion; backrest & arm rest with fabric cushion suitable for working while the vehicle is in motion.
9.	Fittings: Following should be provided: <ul style="list-style-type: none"> • Tinted glass: Front & rear windshield, drivers cabin windows shall be plain glass. Other windows shall be of tinted glass. • Fans: 3 Nos. (6” size) wall mounted, operating on 12 V DC – 3 Nos. in Lab & 1 No. in driver’s cabin.

	<ul style="list-style-type: none"> • Tube lights 2 fts.: 3 Nos. single with decorative cover, complete with chokes & starters. • Electrical Fittings: 6 Nos. 15/ 5 Amps. Capacity plugs shall be provided. Power receiving sockets to be provided (32 amps. Min.) with changeover switch for DG/ mains. All switches shall be metal clad type. • Main Switch board shall be mounted at convenient place with fuses, indicating lamps, voltmeter, ammeters and switches (size 400 mm x 250 mm) • First Aid Box: 1 No. (15” x 9” 4”) with necessary medicines • Tool Box for vehicle with suitable jacks • 1 No. CO₂ Fire extinguishers as per IS 2878 • Generator Set: 2 Nos. Portable Petrol Generator “Honda/ Lister Petter/ Kirloskar/ Equivalent Make”, single phase 220 Volt, Max. output – 5000 VA or equivalent suitable for Mobile Lab van. The PG set compartment shall be lined with acoustic insulation & PG set to be mounted with anti-vibration pads. • Spark Arrestor: 2 Nos. CCOE approved arrestors provided – 1 for Generator sets & 1 for main engine.
10.	<p>Electrical Wiring: Wiring shall be concealed with metallic conduits. ISI mark Finolex fire retardant cables to be used.</p>
11.	<p>Painting & Colour Scheme: Surface preparation prior to applying primer coat, putty and final paint will be strictly as per paint manufacturer’s recommendation. Drying time, in between various coats of paint will be given as per recommendations. Following coats should be applied:</p> <ul style="list-style-type: none"> • RLGP; Putty & Leveling; RLGP; Final Paint – 2 coats; MRF autocoat PU paint/ thinner should be used. Final colour schemes will be informed later.
12.	<p>Others:</p> <ul style="list-style-type: none"> • Vehicle Chassis Model TATA 407 or equivalent Cab and Chassis to be included for Fabrication of the mobile station • Mains cable with drum of 50 meters for receiving power supply from external mains supply of 230 V, 50 Hz. • Arrangement for fixing the Calibration Gas Cylinders with chains and hooks. • Analyser Rack Cabinet – Double Bay with all wiring, pneumatic tubing, telescopic slides, base frame, cooling fans, power distribution etc. • Analysers to be mounted inside the Van will be SO₂, NO_x, CO-CO₂, O₃, BTX, PM₁₀ & PM_{2.5} • Cost for above mentioned analysers system (8 parameter monitoring along with AWS) all together may also be quoted separately as 11th station under this head (specification same as earlier). • Provision for mounting Multipoint Calibrator and Zero Air Generator for Calibration of the Analysers to be provided • Weather Sensors are to be mounted on the Mobile Van with Telescopic Meteorological mast. Necessary arrangement with cabling, wiring to be provided. Sensors will be Wind Speed, Wind Direction, Temperature, Humidity, Solar Radiation & Rain Guage. • Necessary Holes for Gas Sampling and Dust Sampling with proper sealing arrangement to be provided.

U. OMC (OPERATIONAL AND MAINTENANCE CONTRACT):

Total Comprehensive Operational and Maintenance Contract (OMC) for 5 years for all set of analyzers including complete manned operation and managing stations and supply of the data to central station with remote handling. Supplier should quote for the comprehensive Operational maintenance contract (OMC) for a total period of 5 years. It is understood that as per the practice, there should be a total Comprehensive Maintenance Contract (CMC) for initial one year free of cost. Hence, only the man power cost should be included in 1st year.

This OMC should be included for complete system of this tender for uninterrupted operation of all AQMS stations, analyzers, walkway shelters, AWS, all accessories and related components–

- All consumable; spare parts; recurring expenses viz. GPRS /3G SIM tariff, and regular maintenance for uninterrupted operation (24x7), etc for all stations.
- Stationing of **ONE** dedicated trained supervisor /engineer in control room at RMC, Mumbai to take care of regular supervision related to maintenance, calibration and all hardware related issues for all stations of SAFAR-MUMBAI.
- Stationing of **ONE** dedicated trained software expert in control room of IMD, Mumbai /IITM, Pune for all software related issues and regular monitoring of data transfer to FTP /display servers, conversion to AQI and all other features, data handling and analysis, report preparations as desired by IITM. Person should be able to develop the software, web portal, data communication modules and required to upgrade all the prototype developed software under the project as per the improved technology. He /she should do related software development as and when required and instructed by IITM during his contract period (Persons should be present on all working days (in case or emergency as an when required) for the entire duration of the OMC)
- **Additional Staff:** In addition to the above, quote for additional permanent operational staff /engineer adequate for proper maintenance, calibration, operation and data handling of all the 10 AQMS stations and 21 AWS stations along with central station. **Minimum estimated required number to be quoted for manpower is 6 in additional to be above 2 (Total =8)** with a guarantee to strictly follow the OMC guidelines and IITM will not accept anything below this number. However, if vendor feels that more engineer and staffs are required for OMC then it should be clearly mentioned and should be quoted accordingly.

These OMC staff will maintain all instruments, manage all consumable, keep it up to date and carry out the complete operational analysis at all 10 different AQMS & 21 AWS (spread around 50-80 km radius within Mumbai and surrounding areas) on routine basis. Quote separately for each year. All instruments should remain operational at least 90% of the time in a year and should not remain non-functional continuously for more than 3 days in general. In case of non-compliance, penalty will be charged which will be 5% of total OMC amount per day (or as decided by IITM) and also extension of OMC period of the equivalent duration. The instrument should be commissioned, regularized and operational after the order is executed without any additional facility and cost to IITM excepting the infrastructure facility viz. space for erecting station, furnished laboratory space in control room and 230V standard Indian power supply.

INDIAN INSTITUTE OF TROPICAL METEOROLOGY PUNE 411 008 (INDIA)

GENERAL TERMS & CONDITIONS

ENQUIRY NO: PS/125/57/2013/

TENDER NOTICE No.: PS/TENDER/02/2013

- 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) 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, CMC, OMC etc. and any other information, which has financial implications, will only be given.

- 3) 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.
- 4) The main envelope, which will contain both the bids, should be super scribed with our tender enquiry No.**PS/125/57/2013** due on **14 August 2013**.
- 5) 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.
- 6) The Date and Time of opening for Part-II (Commercial Bid) will be intimated only to pre-qualified and technically acceptable Tenderers for the item at a later date.

Last Date and Time for receipt of Tenders: **Upto 12.00 hrs. on 14 August 2013.**

Date and Time of opening of Tenders: **At 15:00 hrs. on 14 August 2013.**

(Part-I Technical Bids only)

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/125/57/2013** for purchase of **“AIR QUALITY AND WEATHER MONITORING SYSTEM (AQMS) FOR SYSTEM OF AIR QUALITY FORECASTING AND RESEARCH FOR MUMBAI (AQMS-SAFAR-MUMBAI)”– 10 Sets (TURNKEY JOB)** due on **14 August 2013**.

- 7) This tender is **not transferable**.
- 8) **Fax / E-mail / Telegraphic / Telex tenders will not be considered**

- 9) If a request is made to IITM, Pune for Tender Documents, a sum of **Rs.5,000.00 (Rs. Five Thousand only)** for indigenous suppliers / Indian agents (Non-refundable) and **USD 100.00 (USD One Hundred only)** for foreign suppliers (Non- refundable) has to be paid in the form of Demand Draft only 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.**
- 10) a) The Equipments are required for **Mumbai** and to be installed in and around **Mumbai (INDIA) at different locations** excepting a few (mentioned) and subsequently Training is to be provided to the concerned scientists / personnel of IITM, Pune.
- 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 FOR/FOB basis, estimated Insurance coverage charges may please be indicated.
- d) CIF, Mumbai value both by Airfreight.
- e) Local Body Tax (LBT) / Octroi Payment if any, the same may please be shown separately.
- 11) Cost of the items should be mentioned clearly in the Commercial Bid (Part-II) only. The optional and any other essential items / accessories required for the maintenance of the equipment for the next five years should also be specified in the offer separately.
- 12) 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 Indian Currency. If Agency Commission is not applicable, the same may kindly be mentioned clearly in the offer.
- 13) 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.
- 14) 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.
- 15) 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.
- 16) **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.**
- 17) Details of services rendered by you as well as after-sales services offered by you are to be made clear in the tender.

- 18)The Tenderer's conditions printed on the tender or otherwise sent along with the tender shall not be binding on IITM.
- 19)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.
- 20)**Delivery Period:** As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to.
- 21)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. **30 (b), (c) & (d)** of this tender terms and conditions.
- 22)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.
- 23)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.
- 24)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.
- 25)In case of foreign quote, the address of Principal's / Manufacturer's and their Banker's details should be furnished.
- 26)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.
- 27)The import license is covered under OGL policy of 2009-2014.
- 28)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 Customs Duty vide Govt. Notification No.51/96-Customs dated 23rd 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 Customs Duty is levied on all imports meant for IITM. Since the suppliers are requested to quote only on FOB basis, applicable freight, insurance and customs

duty to R&D Institutions will be borne by IITM.

- 29) 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 except mentioned above at 28 a) and b). 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.
- 30) a) No advance can be paid.
- b) **PAYMENT:** For Import goods, **80%** 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, **10%** payment shall be released after completion of satisfactory installation, commissioning, demonstration of the whole system, after imparting training and Balance **10%** will be released upon receipt of Bank Guarantee from Indian nationalized bank for 10% of total Order value towards performance bank guarantee 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, **80%** payment shall be made against delivery of indigenous goods, **10%** payment shall be released after completion of installation, commissioning and on acceptance test as per Purchase Order at site and balance **10%** shall be made after receipt of performance Bank Guarantee from Indian 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.
- d) To ensure due performance of the contract, the successful bidder has to furnish the Performance Security in the form of bank guarantee for **10%** of the Order value from the Indian nationalized bank before execution of ordered work but not later than 15 days from the date of receipt of the Purchase Order. The same will be returned to the successful bidder only after completion of satisfactory installation, commissioning, demonstration of the whole system.
- 31) 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.
- 32) 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.
- 33) **INSTALLATION:** Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.
- 34) 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.
- 35) The tenders must be clearly written or typed without any cancellations / corrections or

overwriting.

- 36)The tenders will be received in the Institute till **14 August 2013** up to **12:00 hrs.** and shall be opened on **14 August 2013** at **15:00 hrs.** in presence of the tenderers or their authorized agents who wish to be present.
- 37)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 ,
- 38)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.
- 39)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.
- 40)The Technical Bid should accompany with complete specification, Manufacturer's name, address and relevant Technical Literature/Brochures with Warranty Terms.
- 41)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.
- 42)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.
- 43)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.
- 44)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.
- 45)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 readiness.
- 46)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.
- 47)**WARRANTY/GUARANTEE:**
- (a) Please see the complete detail in OMC Clause of tender document.
 - (b) The equipment should 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.

- (c) 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 case of non-compliance a penalty of 5% of the total OMC amount along with the OMC period 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. **Warranty period will stand extended for a period of total downtime of the equipment.**
- 48) Details of onsite warranty, agency that 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. 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.
- 49) The supply of spare parts is to be guaranteed at least for a period of 10 years after the supply of the equipment.
- 50) 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.
- 51) 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.
- 52) Kindly mention the charges separately for shifting of AQMS stations to respective destinations in Mumbai in **commercial bid** (for post warranty period).
- 53) No sub-contracting will be allowed for installation or maintaining system/ equipment / instrument during or after warranty period.
- 54) You have to quote rates for AMC / OMC, if any, only in commercial bid.
- 55) Any upgrade in Operating System (OS) and associated other software during the warranty period should be supplied free of charge.
- 56) Discount offered should be mentioned clearly in the commercial bid only.
- 57) The Tenderers are requested to quote for Educational Institutional Prices for Equipment and Software, since we are eligible for the same.**
- 58) 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.

59)a) The Earnest Money Deposit of **Rs.16,00,000.00 (Rs. Sixteen 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 Indian 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 **FORTY FIVE 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 / Bank Guarantee towards "Earnest Money Deposit" will summarily be rejected.
- 65)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.
- 66)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.
- 67)Goods should not be dispatched until the Vendor receives a firm order.
- 68)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.
- 69)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.

70) 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.

71) Confidentiality: Each party shall maintain as confidential all information received from the other party that is identified as confidential at the time of disclosure (hereinafter for brevity referred to as Confidential Information). Confidential Information shall not include information that is independently developed by recipient or is in public knowledge or is already in the possession of the recipient or is received by receiving party from a third party having been independently developed by such third party. If receiving party is required to disclose Confidential Information due to a legal requirement, it shall provide prompt prior written notice of the same to disclosing party. Confidentiality obligation shall survive for a period of two years after termination/expiry of this Agreement.

Each party shall maintain as confidential all information received from the other party that is identified as confidential at the time of disclosure (hereinafter for brevity referred to as Confidential Information). Confidential Information shall not include information that is independently developed by recipient or is in public knowledge or is already in the possession of the recipient or is received by receiving party from a third party having been independently developed by such third party. If receiving party is required to disclose Confidential Information due to a legal requirement, it shall provide prompt prior written notice of the same to disclosing party. Confidentiality obligation shall survive for a period of two years after termination/expiry of this Agreement.

The supplier and its consultants, representatives and personnel shall not, either during the term or after expiration of this contract, disclose any proprietary or Confidential Information relating to the services, contract or the Purchaser's business or operations or the details or configuration of the system and/or its functions without the prior written consent of the purchaser. No sub-contractor shall be engaged unless with the prior written consent of the purchaser.

The Supplier shall treat the details of the Contract as private and confidential, save insofar as may be necessary for the purposes thereof, for which any disclosures shall be on a need to know basis with the recipients bound by confidentiality requirements which shall be and remain enforceable by supplier at its cost and responsibility mandatorily at the instance of IITM in the event of any breach of confidentiality, such enforcement being by enforcement and inflicting of penal and civil consequences up to the maximum permissible under law, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of purchaser.

If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract the same shall be referred to purchaser whose determination and decision shall be final and binding on both the parties.

The Supplier shall not disclose details except for disclosing to employees and permitted sub-supplier/s on “need to know basis”. No photograph of the works or any part thereof or equipment employed thereon shall be unauthorisedly taken, retrieved, retained, stored, modified, defaced, erased and/or published or circulated without the prior written approval of the purchaser in writing. The responsibilities of the supplier shall not be assigned transferred or otherwise parted with in favour of any other party unless purchaser has permitted such step in advance in writing.

The Supplier confirms and assures IITM that it has signed confidentiality Agreements with its consultants, representatives and personnel, with all such consultants, representatives and personnel bound by confidentiality requirements which shall be and remain enforceable by supplier at its cost and responsibility mandatorily at the instance of IITM in the event of any breach of confidentiality, such enforcement being by enforcement and inflicting of penal and civil consequences up to the maximum permissible under law, and in case of a breach of any of these provisions the Supplier will use all available legal means to forthwith secure injunctions against any unauthorized disclosures by its consultants, representatives and personnel. In the event of a breach of this provision, IITM shall be entitled to seek direct damages from the Supplier subject to the limit of the full value of the present contract.

72) Conditional Offers will not be considered.

73) Corrupt or Fraudulent Practices: IITM as well as Vendor under this contract observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, this Institute shall reject a proposal for award if it determines that the vendor recommended for award after financial evaluation has engaged in corrupt or fraudulent practices in competing for the contract in question. It shall declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a IITM Contract if any time it determines that the firm has engaged in corrupt or fraudulent practice in competing for, or in executing, a contract.

The Integrity pact as per proforma should be signed and submitted along with the technical bid.

74) All disputes are subject to exclusive jurisdiction of Competent Court and Forum in Pune, India only.

75) 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.

76) 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.

77) Last Date and Time for receipt of Tenders: Up to 12.00 hrs. on 14 August 2013.

78) Date and Time of opening of Tenders: At 15:00 hrs. on 14 August 2013.
(Part - I Technical Bid only)

(V. R. MALI)
Scientific Officer, Grade-I
For Director
Email: vipin@tropmet.res.in
Tel: ++91-20-25894483

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. Sealed 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.

PRE CONTRACT INTEGRITY PACT

General

This pre-bid-contract Agreement (hereinafter called the Integrity Pact) is made on _____day of the month of _____ 2013, between, on one hand, the Director IITM, Pune acting through Shri _____, Designation of the officer, Ministry/ Department, Government of Indian (hereinafter called the 'BUYER", which expression shall mean and include, unless the context otherwise required, his successors in office and assigns) of the First Part and M/s _____represented by Shri _____, Chief Executive Officer (hereinafter called the 'BIDDER/Seller" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure (Name of the Stores/Equipment/Item) and the BIDDER /Seller is willing to offer/has offered the stores and

WHEREAS the BIDER is private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Ministry/Department of the Government of India/PSU performing its functions on behalf of the President of India

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto agree into this Integrity Pact and agree as follows :-

Commitments of the BUYER

1.1 The BUYERE undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the Buyer will report the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceeding, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted the BUYER the proceedings under the contract would not be stalled.

Commitments of BIDDERS

3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following :-
 - 3.1 The BIDDER will not offer directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
 - 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration Reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do so having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the Government.
 - 3.3* BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
 - 3.4* BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.

- 3.5* The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 3.6* The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the

BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details if services agree upon for such payments.

- 3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The BIDDERS shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the action mentioned above.
- 3.12 If BIDDER or any employee of the BIDDER or person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financially interested/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of tender.

The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

- 3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

4. Previous Transgression

- 4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.

4.2 The BIDDER agrees that if it makes incorrect statement on this subject BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

5.1 While submitting commercial bid, the Bidder shall deposit an amount _____ (to be specified in RFP) as Earnest Money/ Security Deposit, with the BUYER through any of the following instruments:

i) Bank Draft or a Pay Order in favor of _____

ii) A confirmed guaranteed by an Indian Nationalized Bank. Promising payment of the guaranteed sum to the BUYER on demand within three working days without any demur whatsoever and without seeking any reason whatsoever. The demand for payment by the BUYER shall be treated as conclusion proof of payment.

iii) Any other mode or through any other instruments (to be specified in the RFP).

5.2 The Earnest Money/ Security Deposit shall be valid upto a period of six months or the complete conclusion of the contractual obligation to the complete satisfaction of the both the BIDDER and the BUYER, including warranty period, whichever is later.

5.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to performance Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

5.4 No interest shall be payable by the BUYER to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

6. Sanction for Violations

6.1 Any breach of the aforesaid provisions by the BIDDER or any on employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitled the BUYER to take all or any one of the following actions, wherever required:

i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

ii) The Earnest Money (in pre-contract stage) and/or Security Deposit/ Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason thereof.

iii) To immediately cancel the contract. If already signed, without giving any compensation to the BIDDER.

iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereof at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the bidder from the BUYER in connection

with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.

vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the BUYER.

viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

ix) in case where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.

(x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1 (i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

6.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Full Clause

7.1 The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the Government or India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded.

8. Independent Monitors

- 8.1 The BUYER has appointed Independent monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission (Names and Addresses of the Monitors to be given).
- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of the meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.
- 8.7 The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The Monitor will submit a written report to the designated Authority of the BUYER/Secretary in the Department/ within 8 to 10 weeks from the date of reference or intimation to him by the BUYER / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

11. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

12. Validity

12.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

12.2 Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

13. The parties hereby sign this Integrity Pact at _____ on _____

BUYER
Name of the Officer
Designation
Deptt./Ministry/PSU

BIDDER
CHIEF EXECUTIVE OFFICER

Witness _____

Witness _____

1. _____

1. _____

2. _____

2. _____

*Provisions of these clauses would need to be amended/deleted in line with the policy of the BUYER in regard to involvement of Indian agents of foreign suppliers.