

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra

Maharashtra Pollution Control Board
महाराष्ट्र प्रदूषण नियंत्रण मंडळ

**BIDDING DOCUMENT FOR
SUPPLY, INSTALLATION, COMMISSIONING
AND SUPPORT
OF AMBIENT AIR QUALITY MONITORING
EQUIPMENTS
AND LABORATORY ACCESSORIES**



Tender No: MPCB/JD(APC)/ 01 / 2022-23

MAHARASHTRA POLLUTION CONTROL BOARD

KALPATARU POINT, 3rd FLOOR, Opp. CINE PLANET,
NEAR SION CIRCLE, SION (EAST), MUMBAI - 400 022
Tel: 24020781 / 2401047, Website: <http://www.mpcb.gov.in>

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra

TABLE OF CONTENTS
(e-tender: MPCB/JDAIR/01/2022-23)

1	DISCLAIMER	2
2	LIST OF ABBREVIATIONS.....	3
3	DEFINITIONS.....	4
4	PROJECT CONCEPT & OBJECTIVES	5
5	DESCRIPTION OF THE SELECTION PROCESS.....	6
6	PROCEDURES TO BE FOLLOWED.....	8
7	SUBMISSION OF TECHNICAL BID: COVER - 1.....	13
8	EVALUATION OF PRICE BID: COVER 2	17
9	PAYMENT TERMS	18
10	LIQUIDITY DAMAGES AND PENALTY	19
11	INDEMNIFICATION.....	20
12	PATENT INDEMNITY	22
13	SUPPLIER'S LIABILITY	22
14	INSPECTION	22
15	DELIVERY AND DOCUMENTS	23
16	DETAILS OF SHIPPING AND OTHER DOCUMENTS TO BE FURNISHED BY THE SUPPLIER.....	24
17	BUYBACK	25
18	TRANSPORTATION	25
19	PACKING.....	26
20	INSURANCE	26
21	WARRANTY.....	27
22	ANNUAL MAINTENANCE CONTRACT.....	28
23	INSTALLATION / INSPECTIONS, TESTS AND TRAINING ON O&M	28
24	ASSIGNABILITY	30
25	EXTENSION OF TIME	30
26	PROTECTION AGAINST DAMAGE	30
27	CONFIDENTIALITY.....	30
28	CORRUPT & FRAUDULENT PRACTICES	31
29	TERMINATION OF CONTRACT	31
30	ARBITRATION.....	32
31	LEGAL JURISDICTION.....	32
32	EXHIBIT-1.....	33
33	EXHIBIT – 2.....	34
34	EXHIBIT – 3.....	35
35	EXHIBIT – 4.....	36
36	EXHIBIT – 5.....	37
37	ANNEXURE – 1	38
38	ANNEXURE – 2	49
39	ANNEXURE – 3.....	52
40	ANNEXURE – 4	55
41	ANNEXURE – 5	57
42	e-TENDER TIME SCHEDULE	58
43	INSTRUCTIONS TO BIDDER FOR e-TENDERING	58-61
44	ANNEXURE – 6.....	62
45	ANNEXURE – 7.....	68-71

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra**

1 DISCLAIMER

- 1.1** Though adequate care has been taken in the preparation of this *Request for Proposal* Document, the Bidder should satisfy himself that the Document is complete in all respects. Intimation of discrepancy, if any, should be given to the below mentioned office latest by the date mentioned in Sec.5.7. If this office receives no intimation by the date mentioned in Section 5.7, it shall be deemed that the Bidder is satisfied that the *Request for Proposal* Document is complete in all respects.

**Member Secretary Maharashtra Pollution Control Board
Kalpataru Point, 3rd floor,
Opp. Cine Planet Cinema, Sion Circle Sion (E), MUMBAI – 22
Ph: 022-24014701
Fax: 022-24024068**

- 1.2** Neither **MPCB**, nor their employees or consultants make any representation or warranty as to the accuracy, reliability or completeness of the information in this RFP nor is it possible for **MPCB** to consider the financial situation and particular needs of each party who reads or uses this RFP. **MPCB** recognizes the fact that certain prospective Bidders may have a better knowledge of the Project than others and thus encourages all prospective Bidders to conduct their own investigations and analysis and check the accuracy, reliability and completeness of the information in this RFP and obtain independent advice from appropriate sources.
- 1.3** Neither **MPCB** nor their employees or consultants will have any liability to any prospective Bidder or any other person under the law of contract, tort, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in this RFP, any matter deemed to form part of this RFP, the award of the Project, the information and any other information supplied by or on behalf of **MPCB** or their employees, any consultants or otherwise arising in any way from the selection process for the Project.
- 1.4** **MPCB** reserves the right to reject any or all of the Bids submitted in response to this *Request for Proposal* at any stage without assigning any reasons whatsoever.
- 1.5** **MPCB** reserves the right to change any or all of the provisions of this *Request for Proposal*. Such changes would be intimated to all parties procuring this *Request for Proposal*.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra

2 LIST OF ABBREVIATIONS

MPCB	Maharashtra Pollution Control Board
CPCB	Central Pollution Control Board
RO	Regional Office, MPCB
SRO	Sub-Regional Office, MPCB
HO	Head Office, MPCB
RFP	Request for Proposal in context
OEM	Original Equipment Manufacturer
BG	Bank Guarantee
PBG	Performance Bank Guarantee
LoA	Letter of Award
SLA	Service Level Agreement
LC	Letter of Credit
MoEF	Ministry of Environment and Forests, Govt. of India
IPO	Intellectual Property Owner
IPR	Intellectual Property Rights
AMC	Annual Maintenance Contract
CAMC	Comprehensive Annual Maintenance Contract
O&M	Operate & Maintain
Co OP	Certificate of Operation

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra**

3 DEFINITIONS

3.1 BID

The bids submitted by the prospective Bidders in response to this Request for Proposal Document issued by **MPCB**.

3.2 BIDDER

Bidding Firm / Company that has submitted a Bid in response to this Request for Proposal Document.

3.3 DOCUMENT / BID DOCUMENT

This Request for Proposal Document.

3.4 PROJECT

To select an appropriate Agency for Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipment and Laboratory Accessories in the State of Maharashtra

3.5 REQUEST FOR PROPOSAL

This Document being issued to the prospective Bidders, inviting their Bids.

3.6 RESPONSIVE BIDDER

Responsive Bidder is the bidder whose bid is found responsive after evaluation of the Bid as outlined in Section 5.2.

3.7 COUNTRY OF ORIGIN

The place where the equipment or component parts thereof are produced.

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra**

4 PROJECT CONCEPT & OBJECTIVES

4.1 BACKGROUND

Maharashtra Pollution Control Board (MPCB) is an organization under the Department of Environment, Government of Maharashtra. The Board is responsible for ensuring that all norms under the Pollution Control Act, as stated by the Ministry, are adhered to by all relevant establishments in Maharashtra, which can, through their operations or processes, influence the natural environmental conditions.

One of the charters of the Board is to monitor the levels of pollution in the atmosphere and take necessary measures to ensure a safe environment within its jurisdiction. To meet the increasing requirement of such analysis, Board has planned to strengthen ambient air monitoring program. To achieve goal of increased monitoring by Board officials, Board has decided to purchase new ambient air quality monitoring equipment.

4.2 OBJECTIVE OF RFP

MPC Board intends to purchase new Ambient Air quality Monitoring equipment and phase out few old types of equipment as a part of technology up-gradation. MPC Board offers this exchange of old equipment on “as is where is basis” The details of the equipment offered under buyback are attached in **Annexure-1 (Part-A)**

The RFP intends to select Supplier/s, through e-tendering process, which has the requisite experience, resources and capabilities to supply and maintain Ambient Air Quality Monitoring Equipment for Particulate Matter **PM_{2.5} and PM₁₀ and laboratory accessories** in the State of Maharashtra. The broad scope is defined below.

1. Decommission, buy back and transport phased out equipment.
2. Supply of Equipment at designated locations as per the specifications mentioned and for quantities mentioned in the Price-Bid
3. Installation, Configuration, Commissioning and Testing of the equipment to meet MPCB's requirements
4. Training MPCB personnel to operate the equipment.
5. Warranty Support services for the product and solution support for a period of ONE (1) years from the date of commissioning of the solution and FIVE (5) years of comprehensive AMC after completion of warranty period

4.3 PROJECT COMPLETION SCHEDULE

The successful bidder is required to complete the supply, installation, commissioning and testing of the equipment at MPCB designated locations within Ninety days (90) of

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra

receipt of the LoA. MPCB will issue Certificate of Operation to the Agency upon successful completion of this stage.

The warranty support period will begin from the date of Certificate of Operation by MPCB and will be in force for ONE (1) year.

The post-warranty support period will begin from date of end of warranty period and will be valid for FIVE (5) years.

5 DESCRIPTION OF THE SELECTION PROCESS

5.1 SUBMISSION OF BIDS

The submission of Bids by interested bidders in response to the Request for Proposal should be through e-Tender system only as mentioned in Annexure 5. The Bids will be

Envelope 1 / Cover 1: Technical Bid
Envelope 2 / Cover 2: Price Bid.

The bidder must quote the rates for all the equipment. The bid for each item should clearly mention the item code number, item name. Board reserves the right to accept the tender in full or in part.

5.2 RESPONSIVENESS OF BID

The Bids submitted by Bidders shall be initially scrutinized to establish "Responsiveness". A Bid may be deemed "Non-responsive" if it does not satisfy any of the following conditions:

1. It is not received by the due time & date specified in the section 5.7.
2. It is not accompanied by payment towards price of the RFP.
3. It does not include EMD as stipulated in the RFP.
4. It does not include sufficient information for it to be evaluated and/or is not in the formats specified.
5. It is not signed and / or sealed in the manner and to the extent indicated in Section 6 of this RFP Document.
6. It does not conform to the terms and conditions mentioned in the RFP

The Bids of Responsive Bidders shall be evaluated in the following two steps.

5.3 STEP 1 (COVER 1) – TECHNICAL BID EVALUATION

In the first step, MPCB will evaluate the information submitted by the Bidder in Cover 1 of the Bid. Bids of only the responsive Bidders shall be considered for the subsequent technical evaluation. The evaluation criteria for assessment of the Technical Bid are described in Section-7.4.1. The Cover 2 of the Bid, viz: the Price Bid, to the Bidders whose Bids are not responsive / do not qualify the technical evaluation will not be opened.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory Accessories to MPCB
in the State of Maharashtra

5.4 STEP 2 (COVER 2) – PRICE BID AND PRICE BID EVALUATION

The Price Bid would seek to identify the Bidder making the most competitive price offer to MPCB. The evaluation criteria for assessment of the Price Bid are described in Section -8. The format for the Price Bid is specified in **Annexure - 4**

A ranked list of Bidders based on the results of the evaluation, as detailed in Section-8 of this Document, would be presented. The top ranked Bidder will be designated the Successful Bidder. MPCB is not bound to award a LoA to the lowest price bidder.

5.5 AWARD OF LoA

Successful Bidder would be given a Letter of Award (LoA) stipulating the conditions under which the bid has been qualified as the Successful Bid.

5.6 SIGNING OF ORDER ACCEPTANCE

The Successful Bidder would sign a copy of the Purchase / Work Order as a token of acceptance of the same.

5.7 SCHEDULE OF ACTIVITIES

Sr.no.	Activity	To be performed by	Start (Date & Time)	Expiry (Date & Time)
1.	Release of E-tender	Department	27.03.2023 10:00	-
2.	E-tender download	Bidder	27.03.2023 11:00	10.04.2023 17:00
3.	Last date for receipt of Queries from Bidders	Department	27.03.2023 11:00	31.03.2023 11:00
4.	Pre-bid Conference	Department	31.03.2023 13:00	-
5.	Bid Submission	Bidder	27.03.2023 11:00	10.04.2023 17:00
6.	Opening of Cover-1	Department	11.04.2023 13:00	-
7.	Opening of Cover-2	Department	Shall be announced later	

Bidders are also requested to read Annexure – 5 for detailed schedule of activities related to this RFP and bid submission process.

In order to enable MPCB to meet the target dates, Bidders are expected to respond expeditiously to clarifications, if any, requested during the evaluation process. MPCB shall adhere to the above schedule to the extent possible. MPCB, however, reserves the right to modify the same. Intimation to this effect shall be given to all Bidders.

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring of Particulate Matter-PM_{2.5} to MPCB in the State of
Maharashtra**

6 PROCEDURES TO BE FOLLOWED

6.1 ENQUIRIES & CLARIFICATIONS

Enquiries, if any, should be addressed to:

**Member Secretary Maharashtra Pollution Control Board
Kalpataru Point, 3rd floor,
Opp. Cine Planet Cinema, Sion Circle, Sion (E), MUMBAI – 400 022
Ph: 022-24014701
Fax: 022-24024068
Email: jdair@mpcb.gov.in**

All queries that are received on or before the date mentioned in Section 5.7 shall be addressed by MPCB in writing. MPCB shall aggregate all such queries, without specifying the source and shall prepare a response, which shall be distributed to all parties who have procured the Request for Proposal Document. It may be noted that queries in writing would be entertained only from those parties who have procured this Document.

Request for clarifications received from prospective bidders who have not paid the fee for the RFP document as defined in 6.6.1, will not be answered. Such bidders will not be allowed to attend the pre bid meeting and also to bid.

Request for clarifications received after the last date mentioned in Section 5.7, may not be addressed. Decision of the Board in the matter will be final.

The prospective Bidders shall submit the queries only in the format given below:

Sr. No	RFP Page No	RFP Clause No	Description in RFP	Clarification Sought	Additional Remark (if any)

6.2 SUBMISSION OF THE BID

1. Cover 1 – Technical Bid

The information to be submitted by the Bidders as Cover 1 of their Bids is described in Section 7 and Annexure 5.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring of Particulate Matter-PM_{2.5} to MPCB in the State of
Maharashtra

2. Cover 2 – Price Bid

The Information to be submitted by the Bidders in the Price Bid (Cover 2) is described in Section 8 and Annexure 5.

3. Submission of the Bid

The Bidders are requested to follow the Bid submission process which is detailed in Annexure 5 as per the schedule elaborated in Section 5.7 and Annexure 5.

MPCB shall not be responsible for any delay in submission of the Bids. Any Bid received by MPCB after the due date for submission of the Bids stipulated in Section 5.7 and Annexure 5, will not be opened.

6.3 INITIALING OF THE BIDS

As prescribed in the Annexure 5, under this e-tender process the bids should be digitally signed. Any testimonials being presented should be self-attested before uploading.

6.4 INSTRUCTIONS TO BIDDERS

All Bidders should note the following:

1. Bids received after the scheduled time will not be accepted by MPCB under any circumstances. MPCB will not be responsible for any delay for any reason whatsoever.
2. Bid once submitted will be treated, as final and no further correspondence will be entertained on this. No Bids will be modified after the deadline for submission of Bids.
3. Bids that are incomplete in any respect or those that are not consistent with the requirements as specified in this *Request for Proposal* or those that do not contain the Covering Letter and other documentation as per the specified formats may be considered non-responsive and may be liable for rejection.
4. Scanned copies of the printed literature and catalogue/brochure giving full details should be included with technical bid to verify the specification quoted in the RFP document.
5. Strict adherence to formats, wherever specified, is required. Non-adherence to formats may be a ground for declaring the Bid non-responsive.
6. All communication and information should be provided in writing and in the English

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

language only.

7. The metric system shall be followed for units.
8. All prices shall be expressed in Indian Rupees only
9. All communication and information provided should be legible, and wherever the information is given in figures, the same should also be mentioned in words.
10. Arithmetical errors will be rectified as follows –
 - a. If there is a discrepancy between the unit price and the total price that is obtained by multiplying quantities, the unit price will prevail
 - b. In case of discrepancy between grand total obtained by adding various line item totals & the grand amount stated in words, the grand total will be recalculated and the same will be taken as correct.
 - c. The price bid will be treated as inconsistent & non-responsive, in case if more than one type of discrepancy is observed in the price bid. Such price bid/s will be rejected summarily and considered as intentional misrepresentation and the EMD will be forfeited.
11. MPCB reserves the right to seek additional information from the Bidders, if found necessary, during the course of evaluation of the Bid. Non-submission, incomplete submission or delayed submission of such additional information or clarifications sought by MPCB, may be a ground for rejecting the Bid.
12. The Bids shall be evaluated as per the criteria specified in this RFP Document. However, within the broad framework of the evaluation parameters as stated in this Request for Proposal, MPCB reserves the right to make modifications to the stated evaluation criteria, which would be uniformly applied across all the Bidders.
13. The Bidder should designate one person ("Contact Person" and "Authorized Representative and Signatory") authorized to represent the Bidder in its dealings with MPCB. This designated person should hold the Power of Attorney and be authorized to perform all tasks including but not limited to providing information, responding to enquiries, entering into contractual commitments on behalf of the Bidder etc. The Covering Letter submitted by the Bidder shall be signed by the Authorized Signatory and shall bear the stamp of the entity thereof.
14. The Bid (and any additional information requested subsequently) shall also bear the initials of the Authorized Signatory and stamp of the entity thereof on each page of the Bid.
15. MPCB reserves the right to reject any or all of the Bids without assigning any

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

reason whatsoever

16. Conditional bids may be summarily rejected.
17. Mere submission of information does not entitle the Bidder to meet an eligibility criterion. MPCB reserves the right to vet and verify any or all information submitted by the Bidder.
18. If any claim made or information provided by the Bidder in the Bid or any information provided by the Bidder in response to any subsequent query by MPCB, is found to be incorrect or is a material misrepresentation of facts, then the Bid will be liable for rejection and the Bid Security will be forfeited. Mere clerical errors or bonafide mistakes may be treated as an exception at the sole discretion of MPCB and if MPCB is adequately satisfied.
19. The Bidder shall be responsible for all the costs associated with the preparation of the Bid. MPCB shall not be responsible in any way for such costs, regardless of the conduct or outcome of this process.
20. MPCB may, at its discretion, extend this deadline for submission of Bids by amending the RFP which will be intimated through MPCB website, in which case all rights and obligations of MPCB and bidder will thereafter be subject to the deadline as extended.

6.5 VALIDITY OF THE PRICE BID

Each Bid shall indicate that it is a firm and irrevocable offer and shall remain valid and open for a period of not less than 180 days.

Non-adherence to this requirement and other terms stipulated in the RFP document may be a ground for declaring the Bid as non-responsive. However, MPCB may solicit the Bidder's consent for extension of the period of validity if the Bidder agrees to reasonably consider such a request. The request and response shall be in writing. A Bidder accepting MPCB's request for extension of validity shall not be permitted to modify his Bid in any other respect.

MPCB, reserves the right to vary the quantities by $\pm 30\%$ of the proposed quantities, add or remove locations, during the validity period of the contract. For any such changes made in quantities and the locations, the price mentioned only in the contract shall be considered. No revision in the prices, especially upwards, will be granted in the contracted prices.

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra**

6.6 FEES AND DEPOSITS TO BE PAID BY THE BIDDERS

6.6.1 Fees for Request for Proposal (RFP) document

The RFP can be purchased by making a payment (non-refundable) of Rs. 10,000.00 (Rs. Ten Thousand only) through online payment. Please refer Annexure 5 of this document for the payment methodology.

It is mandatory for the bidders to display the proof of purchase of the RFP document to attend the pre-bid meeting. Prospective bidders failing to pay the fee for the RFP during the sale of RFP document will neither be allowed to attend the pre-bid meeting, nor will his bid be accepted.

6.6.2 Earnest Money Deposit (EMD)

Bidders are required to submit an Earnest Money Deposit (EMD) for an amount of **Rs.10,00,000 /- (Rupees Ten lakhs only)**.

Please refer Annexure 5 for the payment of the same. Bids of the bidders, who have not paid the EMD as stipulated in this RFP, will be rejected by MPCB as non-responsive. No exemptions to this clause will be allowed.

MPCB shall reserve the right to forfeit the Bidder's EMD under the following circumstances:

1. If the Bidder withdraws his Bid at any time during the stipulated period of Bid validity as per Section 9.1 (or as may be extended).
2. If the Bidder, for the period of Bid validity:
 - i) in MPCB's opinion, commits a material breach of any of the terms and / or conditions contained in the RFP Document and / or subsequent communication from MPCB in this regard and / or
 - ii) fails or refuses to execute the LoA (in the event of the award of the Project to it) and/or
 - iii) fails or refuses to furnish the Performance Guarantee within the stipulated time.
3. Any claim made or information provided by the Bidder in the Bid or any information

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

provided by the Bidder in response to any subsequent query by MPCB, is found to be incorrect or is a material misrepresentation of facts

In the event that any Bid is non-responsive or rejected after technical evaluation, the EMD of such Bidders shall be refunded with the unopened Cover – 2 of their Bid.

In respect of the bids after Technical Evaluation and eligible for price bid evaluation, the EMD of the unsuccessful Bidders (after opening of Cover 2) can cease to be in force after 60 days following the announcement of award of the Project to the Successful Bidder through the issue of the LoA for the same. The EMD of the Successful Bidder will be returned only on submission of SPBG that Successful Bidder will provide at the time of signing Order acceptance & the SLA. EMD of the unsuccessful bidders will be returned after 45 days of award of contract.

7 SUBMISSION OF TECHNICAL BID: COVER - 1

7.1 CRITERIA FOR MINIMUM ELIGIBILITY AND BID RESPONSIVENESS:

The Bidder shall fulfill all of the following Minimum Eligibility Criteria to participate in the bidding process. The Bidder should provide necessary documentary evidences of compliance as follows. Failure to do so for any of the Criteria mentioned below shall result in disqualification of the Bidder.

1. All Indian manufacturers and Foreign manufacturers having their operations in India or their distributors in India, if any
2. The Bidder should be a firm or a corporate entity, public / private limited company registered / incorporated under The Companies Act, 1956, and in business of manufacturing, authorized representative of OEM providing environment related sampling and testing instruments / equipment and support thereof for minimum **TEN (10) years as on 31st March 2022. No consortiums allowed.**
3. The Bidder should be profitable for each of the past three financial years ending 31st March 2022.
4. Bidder should have after sales / support office in Mumbai and minimum at two other locations in Maharashtra / India to cover the locations of MPCB offices.
5. The Bidder should have officially purchased the RFP by paying the necessary fees as per section 6.6.1 and Annexure 5 of the RFP.
6. The Bidder should submit the EMD as stipulated in section 6.6.2 and Annexure 5
7. The Bidder should produce MAF(s) as per Exhibit-3 in testimony of it being authorised by

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

respective Manufacturers / OEM to supply, install and support the products required by MPCB

8. Each of the products should be 100% compliant to all the technical Specifications mentioned in Annexure-2 (and Annexure 6 – for laboratory accessories). The bidder should submit a declaration to that effect by the Manufacturer / OEM as per **Exhibit 4**.

7.2 COVER 1: INFORMATION FORMATS

Bidders are required to organize Cover-1 as per the following checklist -

Cover 1	Compliance to Minimum Eligibility Criteria and Technical Bid
Section 1	<ol style="list-style-type: none"> a) Covering Letter as per the format specified in EXHIBIT 1 b) Attested copy of Power of Attorney c) Certificate of incorporation / registration d) Certificate from CA for compliance to section 7.1 (3) e) Proof of Purchase of the RFP document for 7.1.(5) f) EMD as per section 6.6.2 g) Manufacturer's authorization form as per EXHIBIT 3 h) Declaration from OEM as per EXHIBIT 4 in compliance of section 7.1 (8) i) Proof of address of offices as per section 7.1 (4)
Section 2	<ol style="list-style-type: none"> a) Documentary Proofs as testimony for Evaluation of Technical bids as per criteria listed in Section 7.4.1 b) Necessary technical brochure / literature, duly highlighting the relevant features / specifications required by MPCB c) Proposed Support methodology for warranty period and post warranty

7.3 TECHNICAL BID - COVER 1

The Cover 1 submission will also include Technical Bid of the bidder.

1. The technical bid should be in line with the scope of work as described in the Section 4.
2. Technical literature for the product and services, covering full technical specifications, principal of operation, design features, test & monitoring facilities, description of operation.
3. The bid should have all relevant testimonials, so as to ensure they score maximum marks under the evaluation system defined in section 7.4.1.

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra**

7.4 TECHNICAL BID: EVALUATION CRITERIA & PROCESS

The Bidder shall necessarily submit in Cover 1 of the Bid Document, the Technical Bid detailing his credentials for executing this project and the highlights of the equipment & services offered by him with respect to scope of work defined in the Bid Document and the benefits that would accrue to MPCB. The Screening Committee appointed for this purpose will do this evaluation. The Technical Bid will contain all the information required to evaluate the bidder's suitability to MPCB for the purpose of this project.

The guidelines for evaluation have been designed to facilitate the objective evaluation of the Technical Bid submitted by the bidder. The information furnished by the bidders in the technical bid shall be the basis for this evaluation. In case any of the information is not made available, the Committee will assign zero (0) marks to that item.

While evaluating the Technical Bid, MPCB reserves the right to seek clarifications from the Bidders. Bidders shall be required to furnish such clarifications in a timely manner.

MPCB also reserves the right to seek additions, modifications and other changes to the submitted Bid. Bidders shall be required to furnish such additions / modifications / other changes in a timely manner.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

7.4.1 Evaluation of Technical Bid

The technical evaluation of the bidders will be done based on the criteria and marking system as specified as follows:

Sr. No.	Criteria	Graded Marks	Max. Marks	Testimonial to be presented
1	Organization constitution		10	
	Partnership	2		Certificate of Incorporation / Partnership deed etc.
	Private Limited	5		
	Public Limited	10		
2	Financial Capability		10	
a	Average Turnover (AT) of the organization as on 31st March '22			Certificate from CA
	AT < Rs. 25.00 cr but ≥ Rs. 15.00 cr	2		
	AT < Rs. 35.00 cr but ≥ Rs. 25.00 cr	5		
	AT ≥ Rs. 35.00 crores	10		
3	Past Performance (Orders executed in last 5 years ending 31st Sept 2022)		35	
a	Order for supply, implementation and commissioning of Equipment (PM10 and / Or PM 2.5) having Order value ≥ Rs. 2.00 crore	Four (4) Mark Per Order		Copies of the orders executed in last 5 year ending 31/09/2022
	To Govt organization (state / central / UT / urban local bodies / PSUs) and / or Private Organization		20	
b	Number of AMC orders having AMC ≥ 3 years	Three (3) Mark Per Order		
	To Govt organization (state / central / UT / urban local bodies / PSUs) and / or Private Organization		15	
4	Certification		5	
a	Certification for the organization			Copy of certificate valid as on date of bidding
	ISO 9000	1		
	ISO 14001 / 17000	3		
b	Certification for the instrument			
	TUV / UL / CE / NPL	1		
5	Service Support Infrastructure		20	
	Certified Service Engineers			
	Service staff ≥ 10 but < 15	5		OEM Certified Service staff currently on the roll along with respective OEM certificate.
	Service staff ≥ 15 but < 20	10		
	Service staff ≥ 20	20		
6	Presentation on execution, Support		20	
	TOTAL MARKS		100	

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

Each responsive Bid will be attributed a **technical score denoted by symbol “S(t)”**. The technical score shall be out of a maximum of 100 marks.

If in MPCB's opinion, the Technical Bid does not meet the minimum technical specifications & service requirements or is otherwise materially deficient / inconsistent in any other aspect; the Bid shall be declared Technically Evaluated & Non-Responsive and shall not be considered for further evaluation.

After technical evaluation, MPCB will rank the bidders in descending order of their technical scores with the top ranked bidder having the highest technical score. If any bidder is found to be technically inadequate to the requirements of MPCB, i.e. if the technical marks are lower than 70, then that bidder's bid would be deemed non-responsive for further evaluation and would not be considered further in the bidding process.

If in case, after technical evaluation, only one bidder is found to be responsive & eligible, i.e. if the technical marks of only one bidder are more than or equal to **70**, the Board will decide an acceptable price band and open Price Bid of the only eligible bidder. If the price bid of the bidder falls within the price band specified by the Board, the bidder will be declared as the **SUCCESSFUL BIDDER**.

8 EVALUATION OF PRICE BID: COVER 2

8.1 PRICE BID PARAMETERS

Bidders are requested to quote the Prices inclusive of all taxes/duties, packing, forwarding, freight, insurance, customs clearance, handling charges, transportation, delivery and commissioning etc. at the destination site as per delivery schedule at Annexure – 1 (Part-B).

In case of bids in foreign currency, the Bidders should quote the CIF price with breakup of all the costs.

8.2 EVALUATION OF PRICE BIDS AND RANKING

The price bids of only technically successful bidders whose technical Bids have been awarded 70 or more marks by the Committee will be opened.

It may be noted that the Price Bid is in two parts as per Annexure-4, i.e. PART A and PART B. Bidders are required to quote the prices as per the format given in PART A and PART B.

ONLY the prices in the PART A will be considered while evaluating the Price Bid. MPCB will reserve the right to purchase the equipment mentioned in the PART B at the rates

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

quoted during the tenure of the Contract.

To facilitate evaluation and comparison, MPCB will convert all bid prices expressed in the amounts in foreign currency (USD, EUR, GBP, JPY) in which the bid prices are payable to Indian Rupees at the selling exchange rate established by www.xe.com or www.rbi.org Valid on the date of Price Bid Opening

For the Bidders bidding in foreign currency, the prices will be considered on CIF basis only. Bids not specifying the necessary components such as Freight, Custom and / CVD duty, insurance will be termed as non-responsive and as such will not be considered for evaluation.

The evaluation will be carried out if Price bids are complete and computationally correct. For the purpose of evaluation, only the Grand Total Price (Z) will be considered. Lowest Price bid (denoted by symbol "P (m)") will be allotted a Price score of 100 marks. The Price score will be denoted by the symbol "S (p)". The Price score of other bidders will be computed by measuring the respective Price bids against the lowest bid.

These Price scores will be computed as: $S(p) = 100 * (P(m) / P)$ where P is the Price bid of the bidder whose Price score is being calculated. The Price score shall be out of a maximum of 100 marks.

8.3 COMPUTING THE FINAL SCORE

The composite score is a weighted average of the Technical and Price Scores. The weightages of the Technical vis-à-vis the Price score is 0.70 of the Technical score and 0.30 of the Price score. The composite score (S) will be derived using following formula:

$$S = (S(t) * 0.70) + (S(p) * 0.30)$$

Thus, the composite score shall be out of a maximum of 100 marks.

The responsive bidders will be ranked in descending order according to the composite score as calculated based on the above formula. The highest-ranking vendor as per the composite score will be selected. However, in order to ensure that MPCB gets best solution in technical terms, MPCB reserves the right to enter into negotiation with bidder having highest technical score and place order with this bidder at a suitable price.

8.4 AWARD CRITERIA

Final choice of MPCB to award this project to a suitable bidder to execute this project shall be made on the basis of composite scoring arrived as per formula mentioned above.

8.5 NOTIFICATION OF AWARD

MPCB will notify the successful bidder in writing that his bid has been accepted. Upon the successful bidder's furnishing of performance security, MPCB will promptly notify each unsuccessful bidder and will discharge their bid security.

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra**

9 PAYMENT TERMS

9.1 The Price Bid should be valid for a minimum period of 180 days from the last date of submission of bids

9.2 Following payment terms will be offered to the successful Bidder:

(a) For Bids in Foreign Currency:

Payment of foreign currency portion shall be made in Bidding Currency in the following manner:

- (i) On Shipment: **80%** of the Contract Price of the Goods shipped shall be paid by Sight Draft or through irrevocable Letter of Credit opened in favor of the Supplier through the State Bank of India, Matunga Branch, Mumbai for the Order value, and upon submission of documents specified in section 15
- (ii) On Acceptance: **20%** of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods and successful installation & commissioning upon submission of claim supported by the acceptance certificate issued by the Purchaser along with the Performance security.

The L/C will be confirmed at the supplier's cost. All bank charges shall be to the account of the beneficiary i.e. supplier. If L/C is requested to be extended/reinstated for reasons not attributable to MPCB, the charges thereof would be to the suppliers' account.

Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of Invoice along with CoOP from MPCB declaring that the Goods have been delivered and that all other contracted Services have been performed.

(b) For Bids in Indian Rupees:

Payment for Goods and Services supplied from within India shall be made in Indian Rupees, as follows:

- (i) 80% percent payment shall be made against delivery, installation, commissioning and on acceptance as per Purchase Order at site.
- (ii) The remaining 20% percent of the Contract value shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate issued by the Purchaser subject to submission of performance security.

(c) Payment for the Support period:

The payment for the support period of Five years will be paid in FIVE (5) equal installments at the end of each year in arrears. The payment will be made after deducting penalties, if any.

NOTE: No advance payments will be made under any circumstances.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

10 LIQUIDITY DAMAGES AND PENALTY:

1) Delivery of equipment

For any delay in delivery beyond TWO (02) months from the date LoA / Purchase Order, the Board reserves the right to charge an LD (Liquidated Damages) at the rate of 2% of the total order value for the delay of every week or part thereof, subject to a maximum of 10% of the total supply contract value. Beyond which, without any prejudice MPCB may cancel the order in part or full. On such cancellation of the order, in addition to any other remedy available under the supply contract the EMD, Implementation/ performance Security will be liable for forfeiture.

2) Installation, demonstration & training

The supplier is required to do the installation of the equipment at designated sites and demonstration, training to the nominated persons of MPCB within ONE (1) month of arrival of equipment at the designated sites of installation, failing to this the Board reserves the right to charge a penalty at the rate of 2% of the total order value for the delay of every week or part thereof, subject to a maximum of 10% of the total supply contract value.

3) Support period for FIVE year

The supplier is to undertake preventive and break-down maintenance services during the Five-year support period. The support will be comprehensive on site i.e. inclusive of all spares and support / labour costs associated with support. The support activity should ensure that all the equipment is in full working conditions for the maximum time during the support period.

In case the equipment is found to be in non-working condition on more than three occasions in a year, a penalty of 2% of the equipment value will be levied as penalty for each week or part thereof. Maximum penalty can be 10% of the equipment value per annum. In case the breakages / non-availability of the equipment is more than this limit, MPCB may cancel the contract.

11 INDEMNIFICATION

The Supplier shall indemnify, protect and save MPCB and hold MPCB harmless from and against all claims, losses, costs, damages, expenses, action suits and other proceedings, (including reasonable attorney fees), relating to or resulting directly or indirectly from

- a) An act of omission or commission of the Supplier, its employees, its agents, or employees of its sub-contractors in the performance of the services

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

provided by this Work Order,

- b) Breach of any of the terms of this Work Order or breach of any representation or warranty or false statement or false representation or inaccurate statement or assurance or covenant by the service provider,
- c) Bonafide use of the deliverables and or services provided by the Supplier,
- d) misappropriation of any third-party trade secrets or infringement of any patent, trademarks, copyrights etc. or such other statutory infringements in respect of all components provided to fulfill the scope of this project,
- e) Claims made by the employees, sub-contractor, sub-contractor's employees, who are deployed by the service provider, under this Work order,
- f) Breach of confidentiality obligations of the Supplier,
- g) Gross negligence or gross misconduct solely attributable to the Supplier or by any agency, contractor, subcontractor or any of their employees by the Supplier for the purpose of any or all of the obligations under this Work Order.

The Supplier shall further indemnify MPCB against any loss or damage arising out of loss of data, claims of infringement of third-party copyright, patents, or other intellectual property, patents, and third-party claims on MPCB for malfunctioning of the equipment or software or deliverables at all points of time, provided however, MPCB notifies the Supplier in writing immediately on being aware of such claim, and the Supplier has sole control of defense and all related settlement negotiations.

Supplier shall be responsible for any loss of data, loss of life, etc., due to acts of Supplier's representatives, and not just arising out of gross negligence or misconduct, etc., as such liabilities pose significant risk.

The Supplier shall indemnify MPCB (including its employees, directors or representatives) from and against claims, losses, and liabilities arising from:

- a) Non-compliance of the Supplier with Laws / Governmental Requirements.
- b) Intellectual Property infringement or misappropriation.
- c) Negligence and misconduct of the Supplier, its employees, sub-contractor and agents.
- d) Breach of any terms of Work Order, Representation or Warranty.
- e) Act of omission or commission in performance of service.
- f) Loss of data.

Indemnity would be limited to court awarded damages and shall exclude indirect, consequential and incidental damages. However, indemnity would cover damages, loss or liabilities, compensation suffered by MPCB arising out of claims made by its customers and/or regulatory authorities.

The Supplier shall indemnify, protect and save MPCB against all claims, losses, costs, damages, expenses, action, suits and other proceedings, resulting from misappropriation of any third-party trade secrets or infringement of any patent,

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

trademarks, copyrights etc., or such other statutory infringements under any laws including the Copyright Act, 1957 or Information Technology Act, 2000 in respect of all the hardware, software and network equipment or other systems supplied by them to MPCB from whatsoever source, provided MPCB notifies the Supplier in writing as soon as practicable when MPCB becomes aware of the claim however,

- a) The Supplier has sole control of the defense and all related settlement negotiations
- b) MPCB provides the Supplier with the assistance, information and authority reasonably necessary to perform the above and
- c) MPCB does not make any statements or comments or representations about the claim without the prior written consent of the service provider, except where MPCB is required by any authority/ regulator to make a comment / statement/ representation. Indemnity would be limited to court or arbitration awarded damages and shall exclude indirect, consequential and incidental damages and compensations. However, indemnity would cover damages, loss or liabilities suffered by MPCB arising out of claims made by its customers and/or regulatory authorities.

12 PATENT INDEMNITY

- a) The Supplier shall, indemnify and hold harmless MPCB and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which MPCB may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: (a) the installation of the Goods by the Supplier or the use of the Goods in India; and (b) the sale in any country of the products produced by the Goods.
- b) If any proceedings are brought or any claim is made against MPCB, MPCB shall promptly give the Supplier a notice thereof and the Supplier may at its own expense and in the MPCB's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

13 SUPPLIER'S LIABILITY

The selected Supplier will be liable for all the deliverables.

The Supplier's aggregate liability in connection with obligations undertaken as part of the Work Order regardless of the form or nature of the action giving rise to such liability (whether in contract, tort or otherwise), shall be at actual and limited to the value of the work Order.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

Indemnity would be limited to court awarded damages and shall exclude indirect, consequential and incidental damages. However, indemnity would cover damages, loss or liabilities, compensation suffered by MPCB arising out of claims made by its customers and/or regulatory authorities.

14 INSPECTION

The Inspection and Tests prior to shipment of Goods and at final acceptance are as follows:

- a) After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications.
- b) Manufacturer's test certificate with data sheet shall be issued to this effect and submit along with the delivery documents.
- c) MPCB reserves the options to be present at the supplier's premises during such inspection and testing.
- d) The acceptance test will be conducted by the MPCB, their consultant or other such person nominated by the MPCB at its option after the equipment is installed at MPCB designated site in the presence of supplier's representatives. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the MPCB, the successful completion of the test specified.
- e) In the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the MPCB reserve the right to get the equipment replaced by the Supplier at no extra cost to the MPCB.
- f) Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.
- g) Before the goods and equipment are taken over by the MPCB, the Supplier shall supply operation and maintenance Manuals together with Drawings of the goods and equipment built. These shall be in such details as will enable the Purchase to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
- h) The Manuals and Drawings shall be in the ruling language (English) and in such form and numbers as stated in the Contract.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

- i) Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purposes of taking over until such Manuals and Drawing have been supplied to the MPCB.
- j) On successful completion of acceptability test, receipt of deliverables, etc. and after the MPCB is satisfied with the working of the equipment, the CoOp signed by the Supplier and the representative of the MPCB will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the equipment and start of the warranty period.

15 DELIVERY AND DOCUMENTS

- a) Delivery of the Goods and completion and related services shall be made by the Supplier in accordance with the terms specified by the MPCB in the work order. The details of shipping and/or other documents to be furnished by the supplier are specified further in this RFP.
- b) The mode of transportation shall be as same specified by the bidder in the bid.
- c) The bidders may please note that the delivery of the system should be strictly as per Section 4.3 of this contract.
- d) Goods should not be dispatched until the Supplier receives a firm order.

16 DETAILS OF SHIPPING AND OTHER DOCUMENTS TO BE FURNISHED BY THE SUPPLIER

- a) For Goods manufactured within India:

Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX or scanned copies by email.

- i. Two copies of Supplier's Invoice indicating, *inter-alia* description and specification of the goods, quantity, unit price, total value;
- ii. Packing list;
- iii. Certificate of country of origin;
- iv. Insurance certificate,
- v. Railway receipt / Consignment note;
- vi. Manufacturer's guarantee certificate and in-house inspection certificate;
- vii. Inspection certificate issued by purchaser's inspector, if any and
- viii. Any other document(s) as and when required in terms of the work order.

- b) For Goods manufactured abroad:

Within 24 hours of dispatch, the supplier shall notify the purchaser the

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

complete details of dispatch and also supply following documents by Registered Post / courier and copies thereof by FAX or scanned copies by email.

- i. Two copies of supplier's Invoice giving full details of the goods including quantity, value, etc.;
- ii. Packing list;
- iii. Certificate of country of origin;
- iv. Manufacturer's guarantee and Inspection certificate;
- v. Inspection certificate issued by the Purchaser's Inspector, if any;
- vi. Insurance Certificate;
- vii. Name of the Vessel / Carrier;
- viii. Bill of Lading/Airway Bill;
- ix. Port of Loading;
- x. Date of Shipment;
- xi. Port of Discharge & expected date of arrival of goods and
- xii. Any other document(s) as and when required in terms of the work order.

- Note: 1. The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).
2. The above documents should be received by MPCB before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.

17 BUYBACK

The equipment under "as is where is basis" buyback offered by MPCB are mentioned in Annexure -1 (Part-A).

1. The bidders, who have purchased RFP, at their own cost need to inspect condition of the equipment on the respective location with prior permission and during office hours of MPCB.
2. Bidders must offer buyback to all the equipment mentioned in Annexure-1 (Part-A) irrespective of the condition and location of the equipment.
3. The Successful Bidder, on his own, is required to decommission, remove and transport the equipment from the respective locations.
4. All the related cost for such buyback shall be included in the Price Bid.
5. The Successful Bidder can decommission the phased-out equipment only after Co OP (Certificate of Operation) of the new equipment.

18 TRANSPORTATION

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

- Supplier is required to transport the Goods from Origin to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, shall be arranged by the Supplier, and the related costs shall be included in the Price Bid.
- Supplier is required to transport the Buyback Goods out of MPCB locations. Transport shall be arranged by the Supplier, and the related costs shall be included in the Price Bid.

19 PACKING

- a) The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' destination and the absence of heavy handling facilities at all points in transit.
- b) The packing, marking and documentation within and outside the packages shall comply strictly with any subsequent instructions ordered by the MPCB.

20 INSURANCE

- a) For bids in Foreign Currency, in case of being Successful Bidder, the Goods supplied shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.
- b) In such cases the supplier shall arrange and pay for Cargo Insurance, naming MPCB as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- c) The equipment to be supplied will be insured by the Supplier against all risks of loss or damage from the date of shipment till such time it is delivered at MPCB site in case of bidders in Indian currency.
- d) The Insurance shall be for an amount equal to 110% of the value of the work order from within "warehouse to final destination as specified in work order on "all risk basis" including strikes, riots and civil commotion
- e) With a view to ensure that claims on insurance companies, if any, are lodged in time, the Supplier shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to MPCB and he shall also liaise with MPCB to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the Supplier would be viewed seriously and he shall be directly responsible for any loss sustained by the MPCB on the event of the delay.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

21 WARRANTY

- a) The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Work Order.
- b) The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- c) Unless otherwise specified, the equipment shall carry a comprehensive warranty for a period of ONE (1) year after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination or for FIFTEEN (15) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- d) The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary.
- e) The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.
- f) The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.
- g) The equipment must be supported by a Service Centre manned by the OEM's technical support engineers or OEM certified Engineers. The support through this Centre must be available 24 hours in a day, seven days a week and 365 days a year. Also it should be possible to contact the OEM support Centre on a toll free number/web/mail.
- h) An undertaking from the manufacturer is required in this regard stating that they would facilitate the bidder on regular basis with technology / product updates & extend support for the warranty as well.
- i) The vendor will have to arrange for all the testing equipment & tools required for installation, performance testing & maintenance etc.
- j) The Successful Bidder must have a local logistics support by maintaining a local spares depot in India. This is to ensure immediate delivery of spares parts from the OEM.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

-
- k) MPCB shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. MPCB shall afford all reasonable opportunity for the Supplier to inspect such defects.
 - l) Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the MPCB. This includes cost, insurance, freight, custom duty, octroi, local taxes if any should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.
 - m) If having been notified, the Supplier fails to remedy the defect within reasonable period of time, the MPCB may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the MPCB may have against the Supplier under the Work order.
 - n) Goods requiring warranty replacements must be replaced on free of cost basis to MPCB.

22 ANNUAL MAINTENANCE CONTRACT / COMPREHENSIVE ON-SITE SUPPORT

- a) The bidders should also quote for Annual Maintenance Contract (comprehensive) after warranty for subsequent **FIVE (5)** years.
- b) No sub-contracting will be allowed for installation or maintaining system/ equipment / instrument during or after warranty period.

23 INSTALLATION / INSPECTIONS, TESTS AND TRAINING ON O&M

- a) Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.
- b) Installation and demonstration to be arranged by the supplier free of cost and the same is to be done within ONE (1) month of the arrival of the equipment at site.
- c) The Supplier shall at its own expense and at no cost to the MPCB carry out all such tests and/or inspections of the Goods and Related Services as discussed and agreed to during the course of finalization of contract.
- d) MPCB or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the RFP specifications at no extra cost to the MPCB. MPCB shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

- e) The inspections and tests may be conducted on the premises of the Supplier, at the point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the MPCB.
- f) Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to MPCB. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the MPCB or its designated representative to attend the test and/or inspection.
- g) The Bidder 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. Subsequently, before the consignment lands in MPCB, the bidder shall confirm that the pre installation requirements are sufficient for installation of the equipment. In other words the bidder -should continuously monitor the pre-installation requirements and see that everything is ready before the consignment is taken to the site for installation. It may be noted that MPCB responsibility is only to provide/facilitate space, clean power supply with electrical earth and water. Any additional requirements will have to be completed by the supplier at their own costs and such costs should be considered while bidding.
- h) Should any inspected or tested Goods fail to conform to the specifications, the MPCB may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to MPCB.
- i) MPCB 's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by MPCB or its representative prior to the Goods shipment.
- j) The Supplier shall provide MPCB with a report of the results of any such test and/or inspection.
- k) The supplier shall provide training on Operation and Maintenance of the instruments to minimum of the two nos. of MPCB Personnel at the site of installation.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring of Particulate Matter-PM_{2.5} to MPCB in the State of
Maharashtra

24 ASSIGNABILITY

The successful bidder will not assign its rights, title or interest in the contract in favour of any third party without prior written consent of MPCB. MPCB reserves its rights to grant such consent on such terms and conditions, as it deems fits and proper. MPCB's decision to grant such consent or refusal to grant such consent shall be final.

25 EXTENSION OF TIME

- a) Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the MPCB.
- b) If at any time during execution of the work order, the Supplier should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the MPCB in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the MPCB shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the work order.
- c) Except as provided under the Force Majeure clause, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause in the RFP unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

26 PROTECTION AGAINST DAMAGE

The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:

- a) Voltage 230 volts – Single phase/ 415 V 3 phase ($\pm 10\%$)
- b) Frequency 50 Hz.

27 CONFIDENTIALITY

Successful Bidder shall hold data and information about MPCB, obtained during the execution of its responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of MPCB.

Successful Bidder and MPCB shall maintain in confidence any information relating to the terms and conditions of this contract, information received from each other hereto in connection with this agreement as well as the business operations and affairs of MPCB or

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

the successful bidder and their affiliates and shall not provide access to such information to any third party. This obligation shall expire 2 years after completion of the contract.

28 CORRUPT & FRAUDULENT PRACTICES

MPCB requires that the bidder under this RFP document maintains highest standards of ethics during procurement and execution of this project. In pursuance of this policy the board defines the terms set forth as follows

“corrupt practice” means offering, giving, receiving or soliciting of anything of value to influence the action or decision making of public official in the procurement process or execution of the project.

“fraudulent practice” means misrepresentation of facts in order to influence the action or decision making of public official in the procurement process or execution of the project to the detriment of the board, 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 the board the benefits of free & open competition.

If it is determined that bidder / s are engaged in corrupt & fraudulent practices their bid/s will be rejected and also will be declared ineligible for indefinite period or a stated period to time to participate in any future RFP floated by MPCB.

29 TERMINATION OF CONTRACT

- a) **For Convenience:** MPCB by written notice sent to the Supplier may terminate the contract in whole or in part at any time for its convenience giving one month's prior notice. The notice of termination shall specify that the termination is for convenience the extent to which Supplier's performance under the work Order is terminated and the date upon which such termination become effective
- b) **For Insolvency:** MPCB may at any time terminate the Work Order by giving written notice to the Supplier, if the Supplier becomes bankrupt or insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to MPCB.
- c) **For Non-Performance:** MPCB reserves its right to terminate the Work Order in the event of the Supplier fails to supply / install / Commission / provide support to the equipment supplied as per the provisions of RFP.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

30 ARBITRATION

All disputes, differences, claims and demands arising under or pursuant to or touching this document shall be settled by arbitration of sole arbitrator to be appointed by both the parties and failing such agreement, by two arbitrators, one to be appointed by each party to disputes. All arbitrations shall be held at Mumbai location.

31 LEGAL JURISDICTION

All legal disputes are subject to jurisdiction of Mumbai courts only.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

32 EXHIBIT-1

FORMAT OF THE COVERING LETTER

(The covering letter is to be submitted by the Bidder along with the Cover 1 of the Bid)

Date:

Place:

To,

Member Secretary
Maharashtra Pollution Control Board
Kalpataru Point, 3rd floor,
Opp. Cine Planet Cinema, Sion Circle,
Sion (E), Mumbai – 22

Dear Sir,

Sub: Selection of an Agency for Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipment and Laboratory Accessories in the State of Maharashtra

Please find enclosed our Bid for "Selection of an Agency for Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipment and Laboratory Accessories in the State of Maharashtra" in response to the Request for Proposal (RFP) Document issued by **MPCB** dated

We hereby confirm the following:

1. The Bid is being submitted by *(name of the Bidder)* who is the Bidder in accordance with the conditions stipulated in the RFP.
2. We have examined in detail and have understood the terms and conditions stipulated in the RFP Document issued by **MPCB** and in any subsequent communication sent by **MPCB**. We agree and undertake to abide by all these terms and conditions. Our Bid is consistent with all the requirements of submission as stated in the RFP or in any of the subsequent communications from **MPCB**.
3. We have paid the EMD as per the RFP terms.
4. The information submitted in our Bid is complete, is strictly as per the requirements as stipulated in the RFP and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid.
5. We as the Bidder, designate Mr/Ms (mention name, designation, contact address, phone no., fax no., etc.), as our Authorized Representative and Signatory who is authorized to perform all tasks including, but not limited to providing information, responding to enquiries, entering into contractual commitments etc. on behalf of us in respect of the Project.

For and on behalf of:

Signature:

(Authorized Representative and Signatory)

Name & Designation of the Person:

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra**

33 EXHIBIT – 2 FORMAT FOR COVERING LETTER SUBMISSION- WITH PRICE BID

(The Price Bid should be submitted along with the following cover letter. Format of Price Bid is given in Annexure - 4)

Date:
Place:

To,

**Member Secretary
Maharashtra Pollution Control Board
Kalpataru Point, 3rd floor,
Opp. Cine Planet Cinema, Sion Circle,
Sion (E), Mumbai – 400 022**

Dear Sir,

Sub: Selection of an Agency for Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipment and Laboratory Accessories in the State of Maharashtra

As a part of the Bid, we hereby make the following price offer to the MPCB.

The cost of Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipment and Laboratory Accessories in the State of Maharashtra for ONE (1) years and Comprehensive AMC for FIVE (5) years is mentioned in the Price Bid as per Annexure – 4 of the RFP.

We acknowledge that only the prices in PART A will be considered for Price Bid Evaluation. MPCB reserves the right to purchase equipment mentioned in PART B of the Price Bid at the rates quoted therein during the tenure of the contract.

We agree to bind by this offer if we are selected as the Successful

Bidder. For and on behalf of:

Signature (Authorized Representative and Signatory of the Bidder):

Name of the Person:
Designation:

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

34 EXHIBIT – 3

MANUFACTURER'S AUTHORISATION FORM

(This letter of authority must be on the letterhead of each of the Manufacturer, must be signed by a person competent and having the power of attorney to bind the Producer, and must be included by the Bidder in its bid as specified in the Instructions to Bidders.)

Date:

Place:

To,

Member Secretary
Maharashtra Pollution Control Board
Kalpataru Point, 3rd floor,
Opp. Cine Planet Cinema, Sion Circle,
Sion (E), Mumbai – 400 022

Sub: Selection of an Agency for Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipment and Laboratory Accessories in the State of Maharashtra RFP Ref <RFP reference No.>

Dear Sir,

WHEREAS <Name and address of the Manufacturer> who are official producers of < Name of the product and product code > do hereby authorize <name of the Bidder> located at <Address of the Bidder> (hereinafter, the "Bidder") to submit a bid of the following Products produced by us, for the Supply Requirements associated with the above Invitation for Bids. When resold by Name of the Bidder>, these products are subject to our applicable standard end- user warranty terms.

We assure you that in the event of <Name of the Bidder>, not being able to fulfil its obligation as our Service Provider in respect of our standard Warranty Terms we would continue to meet our Warranty Terms through alternate arrangements.

We also confirm that <Name of the Bidder> is our authorized Service Provider / System Integrator and can hence provide maintenance and upgrade support for our products.

Name

In the capacity of

Signed

Duly authorized to sign the authorization for and on behalf of: _____

Dated:

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra**

35 EXHIBIT – 4

MANUFACTURER’S DECLARATION ABOUT TECHNICAL COMPLAINE

(This declaration must be on the letterhead of each of the Manufacturer, must be signed by a person competent and having the power of attorney to bind the Producer, and must be included by the Bidder in its bid as specified in the Instructions to Bidders.)

Date:

Place:

To,

**Member Secretary
Maharashtra Pollution Control Board
Kalpataru Point, 3rd floor,
Opp. Cine Planet Cinema, Sion Circle,
Sion (E), Mumbai – 400 022**

Sub: Declaration of 100% Technical compliance as required by your RFP <RFP reference No.> Selection of an Agency for Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipment and Laboratory Accessories in the State of Maharashtra

Dear Sir,

WHEREAS <Name and address of the Manufacturer> who are official producers of <Name of the product and product code> do hereby solemnly declare that

1. We have read and understood the technical specifications mentioned in Annexure 2 / Annexure 6 <require separate declaration of compliance for each item> of this RFP and our product <Name of the product(s) and product code(s)> is 100% compliant to every specification mentioned therein.

We understand that if any of the points in this declaration is found to be incorrect, the bid will be declared as non-responsive and will not be considered for further evaluation.

Name

In the capacity of

Signed

Duly authorized to sign the authorization for and on behalf of: _____

Dated

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

36 EXHIBIT – 5

FORMAT FOR CERTIFICATE OF COUNTRY OF ORIGIN OF EQUIPMENT

(This declaration must be on the letterhead of each of the Manufacturer, must be signed by a person competent and having the power of attorney to bind the Producer, and must be included by the Bidder in its bid as specified in the Instructions to Bidders.)

Date:

Place:

To,

Member Secretary
Maharashtra Pollution Control Board
Kalpataru Point, 3rd floor,
Opp. Cine Planet Cinema, Sion Circle,
Sion (E), Mumbai – 400 022

Sub: Declaration of country of origin of equipment by your RFP <RFP reference No.>
Selection of an Agency for Supply, Installation, Commissioning and Support of Ambient
Air Quality Monitoring Equipment and Laboratory Accessories in the State of
Maharashtra

Dear Sir,

We, <bidder name>, hereby certify that the quoted instrument for procurement and installation from Maharashtra Pollution Control Board in State of Maharashtra, India is manufactured in the country mentioned below.

Item No.	Type of Equipment	Brand Name, Product Name of the Equipment with components and relevant Product codes	Country of Origin
01.	PM 2.5 low volume sampler		
02.	Respirable dust sampler (PM10) with gaseous attachment		
03.	Spectrophotometer UV-VIS		
04.	Micro Balance		
05.	Refrigerator		
06.	Hot air Oven		
07.	Desiccator		

We understand that if any of the points in this declaration is found to be incorrect, the bid will be declared as non-responsive and will not be considered for further evaluation.

Name

In the capacity of

Signed

Duly authorized to sign the authorization for and on behalf of: _____

Dated:

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

37. ANNEXURE – 1 PART A

Details of PM 10 equipment to be phased out & replaced by new ones

Sr.no.	Item Description /	Qty	Make/Model	Year of Purchase	Condition Working / Non-working /Old	Location
1.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	Nov,2005	Working with frequent repairs	CADA Office, Aurangabad
2.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	Nov,2005	Working with frequent repairs	S.B. College, Aurangabad
3.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Working with frequent repairs	Govt. Poly. Sadar, Nagpur
4.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Working with frequent repairs	Institution of Engineers, Nagpur
5.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	MIDC Office, Nagpur
6.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	RO-Nagpur
7.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2011	Working with frequent repairs	Bhosari, Pune
8.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2011	Working with frequent repairs	Nal stop, Pune
9.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2011	Working with frequent repairs	Swargate, Pune
10.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2008	Working with frequent repairs	SRO-Sangli
11.	RDS – PM ₁₀ Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2008	Working with frequent repairs	Krishna Valley School, Kupwad

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

12.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2008	Working with frequent repairs	Sangli Miraj primary School
13.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Working with frequent repairs	GCOE, Amravati
14.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Working with frequent repairs	Rajkamal Square. Amravati
15.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Working with frequent repairs	MIDC, Amravati
16.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE		Working with frequent repairs	GCOE, Akola
17.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE		Working with frequent repairs	LR College of Engg. Akola
18.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE		Working with frequent repairs	MIDC Water works, Akola
19.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Not working	Smt.CHM College, Ulhasnagar
20.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Not working	Octroi, Ulhasnagar
21.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2006	Working with frequent repairs	Badlapur Fire Brigade station
22.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2012	Working	Council Office, Ambarnath
23.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2012	Not Working	CETP, Dombivali
24.	RDS – PM10	01	APM 460 NL	2012	Working with	MIDC,

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

	Sampler with Gaseous attachment		APM 411 TE		frequent repairs	Dombivali
25.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2007	Working with frequent repairs	MIDC, Taloja
26.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2007	Working with frequent repairs	CIDCO office, Kharghar
27.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2007	Working with frequent repairs	MPCB, Mahape
28.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2007	Working with frequent repairs	D.Y. Patil, Nerul
29.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2007	Working with frequent repairs	TTC, Rabale
30.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2007	Working with frequent repairs	Water Tank, Panvel
31.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2010	Working with frequent repairs	IGM Hospital, Bhiwandi
32.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2010	Working with frequent repairs	RO-Kalyan
33.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2010	Working with frequent repairs	Prematai Patil Hall, Bhiwandi
34.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	M/s. Multi Organic Pvt.Ltd. MIDC, Chandrapur
35.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	Municipal Corporation Chandrapur
36.	RDS – PM10 Sampler with Gaseous	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	MIDC area Tadali, Chandrapur

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

	attachment					
37.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	Municipal Council, Ghuggus
38.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	Municipal Council, Gadchandur
39.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working with frequent repairs	Municipal Council, Ballarshah
40.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2014	Working with frequent repairs	Tahsil office Wani
41.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2014	Working with frequent repairs	Gram Panchayat Chikhalgaon, Wani
42.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working But Continuously Under Maintenance	VIP Industries LTD, Satpur MIDC, Nashik
43.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working But Continuously Under Maintenance	Old NMC Building, Main Road, Nashik
44.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working But Continuously Under Maintenance	Udyog Bhavan, Near ITI Signal, Satpur, Nashik
45.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working But Continuously Under Maintenance	RTO Water Tank, Saharanpur Road, Nashik.
46.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	July,2009	Working But Continuously Under Maintenance	Krishidhan seeds Pvt.Ltd, MIDC, Jalna
47.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	July,2009	Working But Continuously Under Maintenance	IMA, Jalna

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

48.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working But Continuously Under Maintenance	Kopri Prabhag Samiti Office, Thane
49.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working But Continuously Under Maintenance	Gaondevi Maidan, Naupada, Thane
50.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	2009	Working But Continuously Under Maintenance	Vartak nagar, Thane
51.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	B.J. Market, Jalgaon
52.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	MIDC Industrial area, Jalgaon
53.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	Girna Water Tank, Jalgaon
54.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	University campus, Kolhapur
55.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	Mahadwar road, Kolhapur
56.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	Ruikar trust, ST stand, Kolhapur
57.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	DES, Latur
58.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	Ganjgolai, Latur
59.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	MIDC Latur
60.	RDS – PM10 Sampler with Gaseous attachment	01	APM 460 NL APM 411 TE	-	Working with frequent repairs	Dal Mill, Wani

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

38 ANNEXURE – 1

PART- B

Locations for installation of Respirable Dust Samplers (PM10)
and Low Volume Sampler (PM2.5)

Sr.no.	City	Location	RDS Sampler with Gaseous Attachment (Qty)	Low volume sampler (PM2.5) (Qty)
1	Badlapur	Details of new station locations shall be confirmed later	2	2
2	Beed		4	3
3	Jalna		1	1
4	Mumbai		5	3
5	Nandurbar		4	3
6	Solapur		1	1
7	Ulhasnagar		1	1
8	Vasai-Virar		4	3
9.	Adding above locations as mentioned in Annexure 1 (Part-A)		60	-
10.	Adding locations as mentioned in Annexure-I (Part – C)			106
	TOTAL		82	123

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

39 ANNEXURE – 1 PART C

Locations for Initiation of PM 2.5 monitoring under NAMP / SAMP

S.No.	City	Name of the Stations/Locations	Existing Parameter	No. of Stations of Initiation of PM2.5
1.	Akola	L.R.T. Commerce College, Ratanlal Plot Civil line Akola	SO2, NO2 and PM10	1
2.		MIDC Water Work, Phase-II, MIDC Akola		1
3.		College of Engineering and Technology Akola		1
4.	Amravati	Govt. college of Engineering, Amravati		1
5.		Vanita Samaj Family Planning building, Rajkamal Square		1
6.		Godhadiwala Processing private Limited		1
7.	Chandrapur	Gram Panchayat, Ghuggus, Chandrapur		1
8.		MIDC, Chandrapur		1
9.		Nagar Parishad, Chandrapur		1
10.		MIDC, Tadali, Chandrapur		1
11.		Municipal Council, Ballarshah, Chandrapur		1
12.		Gadchandur Gram Panchayat, Rajura, Chandrapur		1
13.	Jalgaon	B. J. Market, Jalgaon		1
14.		Girna water tank, Jalgaon		1
15.		MIDC, Jalgaon		1
16.	Jalna	SP Office, Jalna		1
17.		Krishidhan Seeds Ltd, Jalna		1
18.	Kolhapur	Shivaji University Campus, Kolhapur		1
19.		Ruikar Trust, Dabholkar corner, Kolhapur		1
20.		Mahadwar Road, Near Mahalaxmi temple, Kolhapur		1
21.	Latur	MIDC Water works, Latur		1
22.		Terrace of Kshewraj Vidyalaya Shyam nagar, Latur		1
23.		Terrace of Sidhsheshwar Sahakari Bank, Ganjgolai, Latur		1
24.	Nagpur	Institution of Engineers, North Ambazari Road, Nagpur		1

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

25.		MIDC Office, Hingna Road, Nagpur	1
26.		MPCB Office Premises, Civil Lines, Nagpur	1
27.		Govt. Polytechnic College, Sadar, Nagpur	1
28.	Nanded	Ganesh Nagar, Nanded	1
29.		Mutha Chowk, Vazirabad, Nanded	1
30.		Industrial Area, CIDCO, Nanded	1
31.	Nashik	VIP Industrial area, MIDC Satpur , Nashik	1
31.		Regional Transport Office , Nashik	1
32.		Nashik Municipal Council, Nashik	1
33.		MPCB Sub Regional Office, Udyog Bhawan, Nashik	1
34.	Tarapur	Plot no. AM-31, MIDC Office compound, Tarapur	1
35.		Police Chowky, Plot no. AM-8, Tarapur	1
36.		Sports Stadium, Plot no: I-34, Tarapur	1
37.	Pune	Maratha Chamber of Commerce, Bhosari, Pune	1
38.		MSEB bldg, Nal Stop, Pune	1
39.		Swargate, Near Traffic Police chowky, Pune	1
40.		Bank of Baroda Building, Near Pimpri-Chinchwad M.C Building	1
41.	Navi Mumbai	MPCB Central Laboratory, Mahape, Navi Mumbai	1
42.		CIDCO Nodal office, Kharghar, Navi Mumbai	1
43.		Water Supply Plant, Panvel	1
44..		MIDC Common Facility Building, Taloja	1
45.	Mahad	Water treatment plant building, Bhirwadi, Mahad.	1
46.		EHS Building of M/s Privi Organics Ltd. Unit-2, Mahad.	1
47.		Mahad Nagar Parishad, Mahatma Phule Vegetable Market, Mahad	1
48.	Roha	Roha Industrial Association Office, Roha	1
49.		Filter House of MIDC works, Roha	1
50.	Lote	MIDC Chalkewadi, Lote	1
51.		Pump House, CETP (MIDC Water Treatment Plant), Lote	1
52.	Sangli	SRO- Sangli, Udyog Bhavan, Vishrambaug, Sangli.	1
53.		Sangli-Miraj Primary Municipal school, Rajwada Chowk, Sangli	1

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

54.		Krishna Valley school, MIDC Kupwad, Tal. Miraj, Dist. Sangli	1
55.	Solapur	Walchand Institute of Technology Campus, Ashok chowk, Solapur	1
56.		Chithale Clinic/ Voronoko School, Solapur	1
57.	Thane	MIDC Phase-II, CETP, Dombivali	1
58.		Shahu Market, Thane	1
59.		Industrial Premises of Glaxo Pokhran road, Thane.	1
60.		Municipal Council Office (Terrace) , Ambernath	1
61.		Thane –Belapur Industrial Association, Rabale, Navi Mumbai	1
62.		Dr. D.Y. Patil College, Nerul, Navi Mumbai	1
63.	Ulhasnagar	Smt. C. H. M. College campus, Ulhasnagar	1
64.		Octroi Naka, Ulhasnagar	1
65.	Badlapur	BIWA House, Badlapur	1
66.	Bhiwandi	Prema tai Patil Hall (Terrace), near Dhamankar naka, Bhiwandi	1
67.		Terrace of Fire brigade office, near IGM Hospital, Bhiwandi.	1
68.		Terrace of MPCB Regional Office, Kalyan.	1
69	Barshi	Mahatma Phule Vegetable Market, Near Fire Brigade Office, Barshi Nagar Parishad - 413 401	1
70		Ujani Jalshuddikaran Kendra, Gadegaon Road - 413 401	1
71	Bhusawal	Bhusawal Municipal council Office - 425 201	1
72		Water Supply Office, Bhusawal - 425 201	1
73	Bhiwandi	Late. Sampada Naik Marriage hall, Bhadwad Police line, Bhiwandi - 421 308	1
74	Gondia	NMD College, Ramnagar Gondia - 441 614	1
75		S.S Girls College, Sindhi colony, Gondia - 441 614	1
76	Nandurbar	Maharashtra Oil Extraction, MIDC Nandurbar-425412	1
77		Dhule Chaufuli, Nandurbar-425412	1
78	Osmanabad	MIDC Office, Osmanabad-413501	1
79		Municipal Council Office, Osmanabad-413501	1
80	Parbhani	Tehsil Office, Parbhani - 431401	1
81		SRO-Parbhani, MPCB - 431401	1

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

82	Ratnagiri	Fire station, Jaistambh, Ratnagiri - 415612		1
83	Satara	Mas Bhavan, Addl. MIDC Satara - 415002		1
84		Satara Municipal Council, Kesarkar Peth, Satara - 415002		1
85	Solapur	Rupabhawani Chowk, Solapur - 413 255		1
86	Udgir	Udayagiri Industrial area, Loni, Udgir- 413517		1
87		Nai Abadi, Udgir - 413517		1
88	Wardha	Plot no: 5, MIDC Wardha - 442 001		1
89		Administrative bldg., Datta Meghe Institute, Wardha - 442 001		1
90	Wani	Tahsil Office, Wani	SO ₂ , NO ₂ and PM ₁₀	1
91		Grampanchayat, Chikhalgaon, Wani		1
92		Dalmil, MIDC Wani		1
93	Aurangabad	SBES College, Aurangabad	SO ₂ , NO ₂ and PM ₁₀	1
94		CADA Office, Aurangabad		1
95		Collector Office, Aurangabad		1
96	RO Amravati	Sahakar Surbhi" Bapatwadi near Vivekanand Colony, Amravati - 444606	SO ₂ , NO ₂ and PM ₁₀	1
97	RO Aurangabad	Paryavaran Bhavan, A - 4/1, MIDC Area, Chikalthana, Aurangabad		1
98	RO Chandrapur	Udyog Bhavan, 1st Floor, Opp. Bus Stand, Railway Station Road, Chandrapur - 442401		1
99	RO Kolhapur	Udyog Bhavan Building, Near Collectorate Office, Kolhapur - 416 002		1
100	RO Kalyan	Siddhivinayak Sankul, 3rd and 4th Floor, Kalyan (West) - 421301		1
101	RO Mumbai	Kalpataru Point, 1st floor, Opp. PVR Theatre, Sion (E), Mumbai- 400 022	SO ₂ , NO ₂ and PM ₁₀	1
102	RO Navi Mumbai	Raigad Bhavan, 7th floor, Sector - 11, C.B.D Belapur, Navi Mumbai		1
103	RO Nagpur	Udyog Bhavan, 5th floor, Civil Lines, Nagpur - 440 001		1
104	RO Nashik	Udyog Bhavan, First Floor, Trimbak Road, Near ITI, Satpur, Nashik - 422007		1
105	RO Thane	Plot No P-30, 5th floor Office Complex Building Mulund Checknaka, Thane - 400 604		1
106	RO Raigad	Raigad Bhavan, 6th floor, Sector - 11, C.B.D Belapur, Navi Mumbai		1

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

40 ANNEXURE -1 PART - D

Location for installation of laboratory accessories

Sr.no.	City	Item / Description	Qty
1.	Beed	Meteorological Parameters	1
		Balance	1
		Refrigerator	1
		Oven	1
		Spectrophotometer	1
		Desiccator	1
2.	Mumbai	Meteorological Parameters	1
		Balance	1
		Refrigerator	1
		Oven	1
		Spectrophotometer	1
		Desiccator	1
3.	Nandurbar	Meteorological Parameters	1
		Balance	1
		Refrigerator	1
		Oven	1
		Spectrophotometer	1
		Desiccator	1
4.	Vasai-Virar	Meteorological Parameters	1
		Balance	1
		Refrigerator	1
		Oven	1
		Spectrophotometer	1
		Desiccator	1

**Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra**

41 ANNEXURE 2

TECHNICAL COMPLIANCE

(The following pages of the annexure have to be duly filled indicating compliance in YES(Y) or NO (N). Any other remarks such as partially complied etc. will be considered non-compliance. The compliance statement should be printed on the letterhead of Manufacturer / OEM and the same should be signed by the authorised person of the Manufacturer / OEM)

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and laboratory accessories to MPCB in
the State of Maharashtra

A. Instrument Name: PM_{2.5} Low volume Sampler

Code: PM 2.5

Quantity: 123 Nos.

Sr No.	Feature	Mandatory Specifications	Compliance Y/N	Deviation
1	Design Compliance	Should comply with USEPA published design & the compliance should be certified by NPL		
2	Flow Rate	1 m ³ /hr maintained by Mass Flow controller only		
3	Elapsed time indicator	Real Time clock-based records the operating time for each sample in hours and minutes.		
4	Volumetric Flow rate Compensation	Performed automatically by the system using Sensors for Ambient Temperature and Barometric Pressure.		
5	Volume Totalizer	MCU unit totalizes and displays volume of air sampled.		
6	Flow Recorder	USB flash memory-based system records flow rate, volume of air sampled, air temperature, filter temperature, filter pressure and barometric pressure.		
7	Size selective inlets	PM10 Impactor and WINS Impactor for PM2.5 conform to USEPA design.		
8	Special Features	Auto shut-off of sampler if flow rate drops by more than 10% from designed value of 16.7 LPM.		
9	Vacuum Pump	Oil free, pump driven by induction motor for stable flow rate.		
10	Data File compatible with MS EXCEL	Downloaded data directly opens in an Excel Sheet. No additional software is required.		
11	Calibration Unit	Leak Check & Flow rate Calibration system provided.		
12	Previous Experience	Bidder should submit proof of having supplied these equipments satisfactorily to CPCB and to at least 5 SPCB's.		
13	Calibration Certificate	Calibration Certificate with NABL Logo must be provided to ensure reliability of Calibration.		

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB in
the State of Maharashtra

B. Instrument Name: Respirable Dust (PM₁₀) Sampler with Gaseous Attachment

Code: PM₁₀

Quantity: 82 Nos.

Sr No.	Feature	Mandatory Specifications	Compliance (Y/N)	Deviation
1	Housing	Sturdy Aluminium cabinet to house Blower, Filter holder assembly, time totalizer, Programmable timer, Flow controller & flow measurement device		
2	Heavy duty Blower	Brushless and almost noiseless, for at least 28 hours continuous operation		
3	Flow Rate	0.8 to 1.4 M3/min free flow with flow stabilization by Automatic Electronic Feedback Flow Control Device		
4	Filter Holder	Aluminum Casting with fine finished rubber gasket		
5	Automatic Sampling	0 –24 hrs. (Flexible to set at any interval of time)		
6	Time Totalizer	0 – 9999.99 Hrs		
7	Flow controller	Automatic Electronic Feed-back controller with pressure sensor to maintain Constant flow rate and compensate for dust load deposited on filter as per BIS Standard IS-5182 – Part 23: 2006		
8	Auto Shut off	Flow controller should have provision to automatically shut off the system if flow rate drops below 0.85 m3/min in compliance with BIS Standard IS-5182 – Part 23: 2006		
9	Flow measurement	Glass Monometer tube accurately graduated directly in M3/min and calibrated across a critical orifice		
10	Particulate sampling/Separation	From 10 micron down to 0.1 micron on filter paper and coarse dust should be collected in cup under the cyclone as per separation technology based on approved design from NEERI-CSIR Lab		
11	Power Supply	Nominal 220V+- 10%, single phase AC mains		
12	Gaseous Sampling Attachment	Thermoelectrically cooled temperature-controlled system		
13	Sampling Train	4 Nos. of 35 ml. borosilicate glass impingers		
14	Flow Control	Four Inlet and One outlet with built in Needle Valves for flow control of each unit & fitted with silica gel tubes		
15	Flow Rate	0.3 – 3 LPM, Accuracy: 2% of span, Least Count: 0.05 LPM		
16	Calibration Certificate	Calibration Certificate with NABL Logo must be provided to ensure reliability of Calibration.		

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB in
the State of Maharashtra

42 ANNEXURE – 3

SCOPE OF WORK

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB in
the State of Maharashtra

SCOPE OF WORK

1. Supply of Equipment

- The supplier will supply the required equipment which is matching the technical and performance specifications as given by MPCB in this RFP.
- The equipment will be supplied by the supplier at its own cost to any / all of the delivery address mentioned in Annexure – 1
- In case the equipment is being imported, the Supplier will do the necessary Custom Clearance before delivery. The necessary documents regarding Custom Duty benefits, if any, will be provided by MPCB.
- In case the equipment is found damaged on arrival at MPCB, the supplier at its own cost will replace the equipment.

2. Buy Back of Phased out Equipment

- Buy back phased out equipment on “as is where is basis”
- Inventorise the equipment as per Annexure-1 (Part-A)
- Supplier on its own cost will Decommission, remove and transport the equipment from MPCB locations.

3. Pre-installation site survey and ensuring site readiness

- Supplier at its own cost will conduct a pre-installation site survey and ensure all necessary conditions exist for proper installation and commissioning of the equipment.
- The prospective bidders are advised to undertake a survey of the location before bidding to assess the site readiness. Any specific and unique site requirement for the installation and commissioning of the equipment should be considered the overall costing of the equipment.
- MPCB's responsibility will be to solely provide/facilitate required space, clean electricity with electrical earth and water supply, as may be needed for the equipment.

4. Installation, testing and commissioning of equipment

- The Supplier will do the physical installation of the equipment at the location and space provided by MPCB.
- The Supplier will do the pre-commission testing of the equipment as may be required.
- The supplier will configure and commission the equipment. The commissioning test results will be documented and submitted to MPCB for their approval.
- At all times during the entire process, the supplier will notify and pre-empt MPCB about the activities to be conducted and ensure their presence.

5. Documentation

All documentation relating to technical specifications, operating instructions,

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB in
the State of Maharashtra

configuration details, etc. have to be neatly documented. The relevant printed literature and soft copies of literature should be handed over to MPCB. In case such literature is not sufficient, the Supplier at their own cost will create and give the necessary documentation.

The warranty details and equipment identification details will be provided to MPCB. In case of routine and periodic maintenance schedule during warranty, such schedule should be given to MPCB.

6.Training of equipment operation

A minimum training to operate, care, reporting faults about equipment must be provided by the supplier. The training material should be given in hard copy format to each of the participants and ONE copy of the same should be submitted to the office JDAIR, MPCB.

7.Support during warranty and post warranty period

- Preventive Maintenance: The supplier is required to undertake periodic preventive maintenance of the equipment supplied as per the Manufacturer's recommendation. In absence of such recommendations, a preventive maintenance should be conducted at least on a six-monthly basis
- Breakdown Maintenance: In case of break down, the Supplier, at its own cost, will ensure that the equipment is restored to working condition in ONE (1) business day. The Supplier will make the necessary replacements of the spares / parts with genuine spares / parts from the OEM. The maintenance will be completed at MPCB site. In case the equipment needs to be taken off the site / the repairs are likely to take more than ONE business day, the supplier will at its own cost, give stand-by equipment.

8. Single Point of Contact

The service provider shall appoint a single point of contact with whom MPCB will interact for any activity pertaining to the requirements of this RFP.

9. Schedule

The selected agency will be required to complete the supply, installation, configuration and commissioning of the equipment within **Ninety (90) days** from the date of issue of Purchase Order / LoA.

The warranty support period will begin from the date of Certificate of Operation by MPCB and will be in force for ONE (1) year.

The post-warranty support period will begin from date of end of warranty period and will be valid for FIVE (5) years.

PRICE BID FORMAT – PART A

The bidders should strictly follow the format given below for submitting the price-bids

[illegible]

NOTE: ONLY THE PRICES MENTIONED ABOVE WILL BE CONSIDERED FOR BID EVALUATION

WARRANTY OF ONE (1) yr will start from the date of successful commissioning and will be valid for ONE (1) calendar yr. MAINTENANCE will start from the date of expiry of Warranty and will be valid for FIVE (5) calendar yrs.

ALICOMM will include all the cost of free on-board replacement of all the spares except for consumables as defined by MROB. MROB will convert all bid prices expressed in the amounts in foreign currency (USD, EUR, GBP, JPY) in which the bid prices are payable to Indian Rupees at the selling exchange rate established by www.m.com or www.fdi.org Valid on the date of Price Bid Opening

For and on behalf of:

Signature (Authorized Representative and Signatory of the Bidder):

Name of the Person:

Designation:

Date:

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

44 ANNEXURE - 4 PRICE BID FORMAT – PART B

Note: *The bidders should print this format and fill with the rates asked, sign and seal the document and upload the same as a part of Envelope 2 submission)*

The bidders should strictly follow the format given below for submitting the price –bids

Sr. No.	Laboratory Accessory	Basic Rate per unit in Rupees	Taxes for in Rs.	Total Rate per unit inclusive of Taxes

- Note:**
1. Prices quoted are for supply, installation, commissioning and support for a period of 5 years.
 2. The prices are valid for 180 days from the date of bid.
 3. Rates to be quoted are unit rates only. The payment will be made on actual number of equipment purchased.
 4. **The Prices quoted above in PART-B WILL NOT be considered for price-bid evaluation and are taken for comparative analysis and future optional needs.**

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

45 ANNEXURE – 5

DETAILS FOR E-TENDER PROCEDURE

NOTICE DETAILS

Tender reference no:	MPCB/ JD(APC) / 01 / 2022-23 Date : 27.03.2023
Name of Work / Item	Selection of Agency for Supply, Installation, Commissioning and Support of Ambient Air Quality Monitoring Equipments and Laboratory Accessories to MPCB in the state of Maharashtra.
Cost of blank tender document & Mode of Payment	Rs. 10,000/- (Rupees Ten Thousand Only) (Non-Refundable) to be paid through Online Payment Modes i.e. Net Banking
EMD Amount & Mode of Payment	Rs.10,00,000/- (Rupees Twenty Lakhs Only) to be paid through Online Payment Modes i.e. Net Banking
Date , Time and Place of Pre Bid Meeting	31 st March at 1300 hours through Virtual Meeting (Link will be published by MPCB on their website)
Venue of online opening of tender	MPCB Conference Hall, Kalpataru Point, 4 th Floor, Sion Matunga Scheme Road No.8, Opp. Sion Circle. Sion (East), Mumbai - 400 022
Address for Communication	Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 4 th Floor, Sion Matunga Scheme Road No.8, Opp. Sion Circle. Sion (East), Mumbai - 400 022
Contact Telephone & Fax Numbers	Tel.No. - 022- 240 87 295, 022- 240 10437 Fax - 022- 240 87 295 email - jdair@mpcb.gov.in

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

46. e-TENDER TIME SCHEDULE

Please Note: All bid related activities (Process) like Tender Document Download, Bid Preparation, and Bid Submission will be governed by the time schedule given under Key Dates below:

Sr. No.	Activity	To be performed by	Start		Expiry	
			Date	Time	Date	Time
1	Release of E-Tender	Department	27.03.2023	10:00	-	
2	E-Tender Download	Bidder	27.03.2023	11:00	10.04.2023	17:00
3	Queries from Bidders	Bidders	27.03.2023	11:00	31.03.2023	11:00
4	Pre-bid Meeting	Department	31.03.2023	13:00	-	
5	Bid Submission	Bidders	27.03.2023	11:00	10.04.2023	17:00
6	Technical Bid Opening (Envelope - 1)	Department	11.04.2023	13:00	-	
7	Price Bid Opening – Tentative (Envelope - 2)	Department	To be announced			

Bidder wise schedule for the Presentations from each of the Bidder shall be communicated later.

Dates mentioned here, are scheduled dates for Bid Opening Activities. Any changes in dates of opening of technical and commercial bids shall be notified in 'Press Notice / Corrigendum' section on the e-Tendering sub portal of the department before opening of the same.

47. INSTRUCTIONS TO BIDDERS FOR e-Tendering

1. The complete bidding document shall be published on <https://mahatenders.gov.in> for the purpose of downloading. The downloaded bidding document shall be considered valid for participation in the electronic bidding process (e-Procurement/ e-Tendering) subject to the submission of required tender/ bidding document fee through e-Tendering Online Payment Gateway mode only.
2. To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Class - II) as per Information Technology Act-2000 using which they can digitally sign and encrypt their electronic bids. Bidders can procure the same from any CCA approved certifying agency. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC.
3. Bidders are also advised to refer "Bidders Manual Kit" available in this document or at <https://mahatenders.gov.in> for further details about the e-tendering process.
4. Bidder is advised to study this RFP document carefully before submitting their proposals in response to the RFP Notice. Submission of a proposal in response to this notice shall be

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Agency for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.

5. Note-

- a. Earnest Money Deposit: - can be paid through Online Payment mode only.
- b. All eligible/ interested Bidders are required to be enrolled on portal <https://mahatenders.gov.in> before downloading tender documents and participate in e-tender process for this Tender. Bidders are requested to contact the telephone numbers provided on maha-tenders portal in case of any doubts/ information/difficulty regarding online enrolment or e-tendering process.
- c. Bidders should submit the document related to tender online. Tender Fee of INR **10,000/-** (including taxes) and Earnest Money Deposit (EMD) should be credited in to MPCB fund account by online payment gateway, before submission of tender response otherwise Bidders cannot participate in tender process. Other instructions can be seen in the tender form. All or any one of the tenders may be rejected by competent authority.
- d. The Electronic tendering system for MPCB will be available on the URL <https://mahatenders.gov.in>.

Note: Prospective Bidders may visit MPCB Office for any further information / clarification regarding this RFP on prior appointment during working hours till the date of bid submission

48. PREPARATION & SUBMISSION OF BIDS

Both the Bids (Technical as well as Commercial) shall have to be prepared and subsequently submitted online only. Bids not submitted online will not be entertained.

49. EARNEST MONEY DEPOSIT (EMD)

Bidders are required to pay Tender Fees and Earnest Money Deposit through Online Payment modes i.e. **Net Banking** during Bid Preparation Stage.

This payment will not be accepted by the department through any offline modes such as Cash, Cheque or Demand Draft.

If for any reason a bidder fails to make this payment through online modes, system won't allow the bidder to complete Bid Preparation stage resulting in his/her elimination from Online Bidding Process.

In case EMD is mandatory to all the bidders for a tender, offers made without EMD shall be rejected.

In Bid Preparation stage, bidders get access to Online Technical and Commercial Envelopes where they require uploading documents related to technical eligibility criteria and quote commercial offer for the work / item in respective online envelopes.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

50. TECHNICAL BID

Following documents should be uploaded in Online Technical Envelope (T1) in PDF format. The list of documents for Technical Envelope is as follows:

Sr. No.	List of Documents	Compulsory / Additional
1	Covering Letter along with its annexure as per Format in EXHIBIT 1	Compulsory
2	Attested copy of Power of Attorney	Compulsory
3	Proof of Purchase of RFP	Compulsory
4	EMD as per Section 6.6.2	Compulsory
5	Certificate of incorporation / Registration Service Tax registration certificate	Compulsory
6	GST Registration certificate	Compulsory
7	Copies of documents in compliance of Section 7.1	Compulsory
8	Documentary Proofs as testimony for Evaluation of Technical bids as per criteria listed in Section 7.4.1	Compulsory
9	Technical Proposal as mentioned in section 7.2 PART 2 (b)	Compulsory
10	Details of Laboratory Setup as mentioned in section 7.2 PART 2 (c)	Compulsory
11	Covering Letter As per Format in EXHIBIT 2	Compulsory
13	Manufacturer's Authorization Form EXHIBIT 3	Compulsory
14	Manufacturer's Declaration about Technical Compliance EXHIBIT 4	Compulsory
15	Certificate of Country of Origin of Equipment EXHIBIT 5	Compulsory
16	Any Other Documents	

51. COMMERCIAL BID

All commercial offers must be prepared online (An online form will be provided for this)

Any bidder should not quote his offer anywhere directly or indirectly in Technical Envelope (T1), failing which the Commercial Envelope (C1) shall not be opened and his tender shall stand rejected.

52. Online Bid Submission

In this stage, bidders who have successfully completed their Bid Preparation stage are

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

required to transfer the data, already uploaded by them during Bid Preparation stage, from their custody to department's custody.

53. OPENING OF BIDS:

The bids that are submitted online successfully shall be opened online as per date and time given in detailed tender schedule (if possible), through e-Tendering procedure only in the presence of bidders (if possible).

Bids shall be opened either in the presence of bidders or its duly authorised representatives. The bidder representatives who are present shall sign a register evidencing their attendance. Only one representative per applicant shall be permitted to be present at the time of opening the tender.

TECHNICAL ENVELOPE (T1):

First, Technical Envelope of the tenderer will be opened online through e-Tendering procedure to verify its contents as per requirements.

Decision of the tender opening authority shall be final in this regard.

The right to accept or reject any or all tenders in part or whole without assigning any reason thereof is reserved with Tender Opening Authority and his decision(s) on the matter will be final and binding to all.

The commercial bids shall not be opened till the completion of evaluation of technical bids. The commercial Bids of only technically qualified Bidders as mentioned above will be opened.

COMMERCIAL ENVELOPE (C1):

This envelope shall be opened online as per the date and time given in detailed tender schedule (if possible), through e-Tendering procedure only, and for those Bidders who have qualified through Technical Qualification Criteria.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

54. ANNEXURE 6: Specifications for Laboratory accessories:

The Board wishes to have an option of procurement of following Laboratory Accessories / Equipment during the tenure of this contract. The Bidders are required to quote the Unit prices for each of the equipment as a part of Price Bid – Annexure 4 - Part B

The specifications for laboratory accessories are attached as follows:

Equipment #1: Hot Air Oven

Construction	Tripled walled construction.
Insulation	3" High grade heavy glass wool insulation ensures stable temperature & reduced energy consumption.
Air Recirculation	Motorized Blower on top side of the chamber develops unique air flow system which ensures maximum uniform temperature distribution inside the chamber. Unique air flow assures quick recovery after door openings.
Blower Motor	1/12 HP, TEFC, F-class insulation, Single Phase, 1440 RPM, 230 Volts
Heating System	S. S. tubular heating elements used on side walls to maintain uniform condition inside the chamber.
Safety	Safety cum stand by thermostat to cut off the heater supply in case of overshoot of temperature.
Door	Single door fitted on heavy cast and chromium plated hinges with spring and roller type latch with silicon to avoid heat loss.
Trays	Specially designed stainless-steel rod trays ensure uniform temperature distribution.
Supply	230V AC, Single Phase, 50Hz
<u>SPECIFICATIONS:</u>	
Standard Model	Inside 316, Outer Mild Steel
G.M.P. Model	Inside S.S. 316 mirror finish. Outer S.S. 304 with dull smooth buff finish.
Temperature Range	Ambient + 5°C to 200°C maximum and Set Temp.to 105°C
Temperature Accuracy	± 0.5°C
Temperature Uniformity	± 1°C
Control System	Imported Microprocessor based auto tuned PID controller with CE mark & dual display of set value & process value for precise control of temperature.
Capacity Liters	200 lit or more
Trays	4
Calibration certificate	Should be done at temperatures according to working purposes.
Warranty period	3 years

Request for Proposal

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

- Air Recirculation by Motorized Blower on top side of the chamber to develop unique air flow system ensuring maximum uniform temperature distribution inside the chamber. Unique air flow assures quick recovery after door openings.
- All instrument/ equipment supplied needs to be provided with IQ, OQ, PQ documents along with traceable calibration certificate from NABL Accredited / ISO/ 7025

Equipment #2: Refrigerator (Frost free, CFC free)

1. **Construction:** - shall be Double walled construction with backside triple. Inside S.S. 304 mirror finish and Outer shall be S.S. 304 sheet.
2. **Temperature Range :** 2⁰C to 8⁰C
3. **Temperature Accuracy:** ± 0.5⁰ C
4. **Temperature Uniformity:** ± 2⁰ C.
5. **Control System:-** Microprocessor based auto tuned PID controller with CE mark & dual display of set value & process value.
6. **Insulation:** shall be 2" or more thick PUF Insulation.
7. **Air Circulation:** Shall be equipped with motorized Blower to develop unique air flow system which maximum uniform temperature condition inside the chamber.
8. **Observation Door:** Shall have full view observation Acrylic / Glass door with gasket to observe sample inside the chamber.
9. **Heating System:** Shall be High quality S.S. Tubular Heaters.
10. **Refrigeration system:** CFC Free compressor with R 134 A (Eco friendly) refrigerant with time delay to safeguard compressor system.
11. **Validation Port:** validation port hole to insert sensors for validation.
12. **Lighting:** Interior illumination for Working area.
13. **Safety features:** Shall have safety measures in case temperature goes above 35⁰ C & activate safety alarm.
14. **Capacity:** 400 liters,

All instrument/ equipment supplied needs to be provided with IQ, OQ, PQ documents along with traceable calibration certificate from NABL Accredited / ISO/ 7025

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

Equipment #3: Analytical Micro Balance (1 µg)

- i. Weighing Capacity : 20 g
- ii. Readability : 0.001 mg
- iii. Repeatability : 0.004 mg
- iv. Response Time : 8 sec average
- v. Linearity : 0.01 mg
- vi. Pan Size should not be less than 50 mm Diameter.
- vii. Balance should have Mono Block Weighing Technology
- viii. Balance should have facility for Fully automatic temperature- and time-controlled internal calibration and adjustment
- ix. Display should be Touch screen color display with Swipe technology graphical user interface.
- x. Leveling facility should be leveling sensor.
- xi. Built in mini USB interface. Direct data transfer to Microsoft Windows. Programmable interval for data output.
- xii. Interactive User Guidance for Fast GLP/GMP Compliant Printouts Interactive
- xiii. Safe and clear documentation by sample and batch identifiers for keeping perfect track of weighing data
- xiv. Overload protection facility should be available.
- xv. Password protection of set-up settings to avoid unauthorized person to operate the balance. Three configurable levels of security.
- xvi. Facility of Storage of all data of calibration procedures.
- xvii. Filters for adapting the balance to ambient conditions (Balance adjusts & performs automatically according to environmental conditions).
- xviii. Built in application like: Weighing, Density of Solids & liquids, Percentage, check- weighing, Peak Hold, Counting, Unstable Conditions, Mixing, components, Statistics, Conversion.
- xix. Built in Ethernet Port for connecting PC or Printer. LIMS compatible

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

Equipment #4: Spectrophotometer (US-VIS)

1. Standalone instrument should be **able to connect to printer with USB port**.
2. Standalone instrument should have **Touch Screen Colour display**.
3. Instrument should be **able to use with PC with latest Windows 10 or compatible** instrument software.
4. Instrument control **PC software** compatible with Windows 10 **should be supplied along with the instrument**.
5. Instrument should have Lamp Hour usage monitoring with **display of Lamp hours consumed**.
6. Hardware specifications required:
 - a. Wavelength Range: 190nm to 1100nm
 - b. Monochromator: Blazed holographic grating with **Crenzy Turner Mountings**.
 - c. Spectral Bandwidth: **1nm** over entire range
 - d. Wavelength accuracy: +/-0.3nm over entire range
 - e. Wavelength repeatability: +/- 0.1nm.
 - f. Light source: Separate Deuterium and tungsten lamp for UV and VIS range
 - g. Lamp Changeover: Automatic and user selectable lamp changeover between UV to visible Range.
 - h. **Noise level: less than 0.00005Abs.**
 - i. Detector: Silicon Photodiode.
 - j. **Sample Compartment: Sample & Reference cells should be mounted in one single sample compartment to maintain same conditions.**
 - k. Validation: Instrument should have in built validation tests
 - l. Should be supplied with multi cell holder preferably with 4 no. cuvette holder.
7. Software specifications required:
 - A. **For Standalone Use Should have:**
 - a. Measurement Mode for Abs / %T at wavelength.
 - b. Measurement Mode for Wavelength scan over entire range for Abs & %T with calculation of Peak, Point Peak, Area & Derivative.
 - c. Measurement Mode for Quantitation i.e. finding of concentration of unknown samples with plotting of calibration curve up to 3rd order with standard samples & possible to use the same next time without requiring

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

standard.

- d. Measurement Mode for enzyme Kinetics with activity calculation.
- e. Measurement Mode for monitoring sample Abs over the period of time.

B. For PC based software Use Should have:

- a. Measurement mode for Wavelength scan over entire range for Abs & %T with detailed data processing including Derivative, Log, Peak & Point finding etc.
- b. Measurement Mode for Quantitation i.e. finding of concentration of unknown samples with plotting of calibration curve up to 3rd order with standard samples & possible to use the same next time without requiring standard.
- c. Measurement Mode for enzyme Kinetics with detailed activity calculation using various Kinetics methods.
- d. User design report formatting with various type of pre-defined formatting.
- e. Multilevel security and history.

C. The Software should be with GLP / GMP Compliance

D. Demonstration of Performance with (LoD and LoQ): The

performance should be confirmed during installation.

Performance should be checked for test samples of Nitrate, Nitrite, Sulphate, Phosphate, Phenol. (Relevant certified standard should be supplied by vendor).

E. Warranty: The supplier should provide comprehensive on-site warranty for the instrument and peripherals (including parts and labour) for **three years (One Regular + Two extended)** after successful installation and commissioning of instrument. The supplier should also quote CAMC on regular basis beyond the warranty period for a period of three years. **Bidder should quote exclusions in warranty, if any.**

F. Installation & training: - Minimum one-week training to two MPCB Scientist at OEM facility OR at application Laboratory / manufacturing facility.

G. Essential Consumables (to be mentioned with Part nos. along with quantity as well)

H. Essential accessories (to be mentioned with Part nos. along with quantity as well)

I. PC & Printer: - The personal computer with latest processor/configuration (Core i5 processor or better, minimum 4

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

GB RAM, 1 TB hard disk, DVD writer, with minimum 19" LED monitor, Optical Mouse, keyboard and LaserJet Printer) should be supplied along with the instrument. The latest OS (windows 10 or better software which is compatible with the UV-VIS software) should be supplied along with original license key of windows and Microsoft office. Latest Configuration branded color laser printer along with Licensed application software, anti-virus software with licensed CD.

Vendor should submit list of Pre-Requisites (Inclusive / Exclusive in his scope) required for installation of UV-VIS instrument at Laboratory with cost.

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

55. ANNEXURE 7:

TECHNICAL SPECIFICATIONS
MANUAL FILTER BASED LOW VOLUME SAMPLER

TECHNICAL SPECIFICATIONS
MANUAL FILTER BASED LOW VOLUME PM_{2.5} SAMPLER

Sampler	Manual Filter Based Sampler (filter diameter 47 mm) as per sampler design & performance criteria as mentioned at Section A,B,C & D in the document.
Flow rate	1 m ³ /hour (16.7 lpm) controlled by a suitable Flow Controller. The Flow Performance criteria should comply with BIS method 5182 (Part 24) 2019 Accuracy \pm 2% of the reading.
Size Selective Inlets	Should have opposed jet impaction for PM10 cut-off and WINS impactor/VSCC for PM _{2.5} collection on filter paper.
Height of the Inlet	The height of the inlet should be between 2 ± 0.2 m from the base of the sampler and the sampler should stand alone firmly at erected position
Time Totalizer	Operates only during operation of the pump, display time with a resolution of one second.
Vacuum pump	Suitable pump with brushless motor for providing the designed flow rate. Pulsating pump should have built-in pulse dampeners.
Flowrate Control	<p>Sampler should maintain designed volumetric flow rate (16.7 LPM) at inlet incorporating dynamic volumetric corrections with respect to temperature and barometric pressure. Necessary compensation of volumetric flow rate due to compensating pressure drop across the filter should also be ensured.</p> <p>Ambient temperature, barometric pressure during sampling must be displayed and recorded.</p> <p>Flow rate should be measured at least at 30 seconds interval and averaged over 5 minutes. The flow rate shall not vary more than \pm 5% from the specified flow of 16.7 lpm.</p>
Data Management	<p>Memory-based recording for flowrate and total volume over five minutes should be downloadable to a computer through a suitable port and USB drive.</p> <p>Current/last logged data should be displayed. Logged data should have cloud connectivity and data of last sampling ten days must be available for crosschecking.</p> <p>Data management requirements (other) & ready reference as mentioned in the document Sections C & D.</p>

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

Power Supply	A stabilized power supply through suitable voltage stabilizer having display of input and output voltage should ensure an output voltage within 230 ± 10 V, AC 50 Hz.
Supply of Accessories	Manufacturer's standard operation kit must include all required, fittings and accessories for the operation of sampler. Accessories to be supplied with each unit should include Leak check unit-1No., Filter cassettes-2Nos, Filter Cassette Holder-1No., Blunt Tip Forceps-1No., Filter Carrier-3Nos., Silicon Grease 10gm -1 box, Impaction Oil - 100 ml-1 bottle, One Set of O-rings and Cleaning Brush.
Documents	Operation and maintenance manual of sampler, along with data transfer protocols used with their technical description for data management and data transfer.
Certificates	Calibration certificates issued by the manufacturer with references used for Flowrate, Temperature, Barometric Pressure and Time Totalizer should be supplied with each instrument. A satisfactory performance check certificate as mentioned in section B (para 2) is provided along-with all the data-sets recorded in the system for data management etc.
Validation	Preliminary test report/validation issued by NPL to be submitted for respective make and model. Any changes in model or declared components of the equipment require revalidation by NPL. Submission of a preliminary test report/validation from NPL as per the set criteria of NPL is mandatory on or before 30 th September 2023.

Section A: Sampler Design Criteria

Impactors of the sampler shall be designed as per specifications mentioned in Appendix L of 40 CFR part 50 Appendix L as defined in BIS 5182 part 24 and tolerances to be followed as specified for PM₁₀ and PM_{2.5} impactor in L14 & L21.

The Material of Construction for the impactor assembly shall be strictly anodised aluminium only

Sampler Body must be of two parts for ease of transport and fabricated by lightweight rust-free metal. The door must open up to 180 degrees and be fitted with a master lock and key. A soft handle with metallic holder and lock should be provided on the machine for ease of handling.



Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

Section D: The Data management requirements - ready reference -

Parameter	Availability				Formats & resolutions	
	Anytime on display	End of Period in download	Visual Display on Screen	Data Output in download	Digital Reading	Units
Flow Rate, 30 Seconds Interval	Required	Not required	Required	Not required	XX.X	L/min
Flow rate, average for the sample period	Not required	Required	Required	Required	XX.X	L/min
Flow rate, Coefficient of variation (CV), for the sample period	Not required	Required	Not required	Required	XX.X	%
Flow rate, 5 minutes average	NA	Required	Not required	Required	XX.X	L/min
Sample volume, Total	Required	Required	Any Time	Required	XX.XXX	m3
Temperature, ambient, 30 seconds interval	Required	Not required	Yes	Not required	XX.X	°C
Temperature, ambient Average for recording interval (5 minute)	NA	Required	Not required	For sampling period	XX.X	°C
Barometric Pressure, ambient, 30 seconds interval	Required	Not required	Yes	Not required	XXX	mmHg / mbar
Barometric Pressure, ambient Average for Recording Interval (5 Minute)	Not required	Not required	Not required	For sampling period	XXX	mmHg / mbar
Filter Temperature, 30 seconds interval	Required	Not required	Yes	Not required	XX.X	°C
Date and Time	Required	Required	Required	For sampling period	dd/mm/yy * HH.MM.S S	D/M/Y HR:M: S

Maharashtra Pollution Control Board, Govt. of Maharashtra
Selection of Supplier for Supply, Installation, Commissioning and Support of
Ambient Air Quality Monitoring Equipment and Laboratory accessories to MPCB
in the State of Maharashtra

Sampling Start and Stop Time Setting	Not required	Required	Not required	For sampling period	Dd/mm/yy* HH:MM:SS	Y/M/D HR:M:S
Time Totalizer	Required	Required	Required	For sampling period	HH:MM:SS	HR:M:S
User enter information such as Filter number and site identification	Required			At the start of sampling	As entered	

*Formats may vary
