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MAHARASHTRA POLLUTION CONTROL BOARD

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Maharashtra Pollution Control Board
महाराष्ट्र प्रदूषण नियंत्रण मंडळ

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Opp. Cine Planet Cinema,
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Mumbai- 400 022.

Corrigendum 2

Date: 05/05/2025

Minutes of Pre-Bid Meeting of RFP for Procurement and Comprehensive Annual Maintenance of Six Gas Chromatograph - Mass Spectrometers for MPCB

1. Brief about the meeting

Date: 25/04/2025, Day: Thursday, Time: 14:30 PM – 15:30 PM
Place: MPCB Office and online meeting over MS Teams platform

2. Agenda: Pre-bid meeting

Table 1: Pre-Bid Meeting attendees

The following attendees were present for the Pre-Bid Meeting:

S. No.	Name	Designation and Organization	In-person / Online
1	Dr. Vishwajeet Thakur	PSO	In-person
2	Shri. Shyamkumar Patil	CAO	In-person
3	Shri Shankar Waghmare	JD-WPC	In-person
4	Shri. Rajendra Rajput	AST	In-person
5	Shri. Ravindra Andhale	JD-APC	In-person
6	Dr.Nilesh Amritkar	Managing Director, M/s.Envirocare Labs., Thane (Expert member of CPC)	Online

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S. No.	Name	Designation and Organization	In-person / Online
7	Dr. P. D. Khadkikar	SSO	In-person
8	Mr. K. V. Gawankar	I/c. SSO	In-person
9	Mrs. Sumitra Mahajan	SO	In-person
10	Shri. Dheeraj Singh	M/s. Mohnot Instruments	In-person
11	Shri. Vinit Sarang	M/s. Toshvin Analyticals	In-person
12	Shri. Shashank Samant	M/s. Toshvin Analyticals	In-person
13	Shri. Dheeraj Handique	M/s. Shimadzu Analytical India	In-person
14	Shri. Divesh Nayak	M/s. C Abhaykumar & Co.	Online
15	Shri. Prashant Bhole	M/s. Thermo Fischer	Online
16	Shri. Manubhai Darji	M/s. Borg Cheminova Pvt. Ltd.	Online
17	Shri. Manoj Survade	M/s. Agilent Technologies	Online
18	Shri. Arun Jha	M/s. Thermo Fischer	Online
19	Dr. Jayraj Rane	M/s. Lab India	Online
20	Shri. Vaibhav Patwardhan	M/s. Lab India	Online
21	Shri. Sunil Kumar	M/s. Thermo Fischer	Online
22	Saptarshi Das	Consultant KPMG	In-person
23	Prabhakar Bagade	Consultant KPMG	In-person
24	Pritam Baruah	Consultant KPMG	In-person

3. Main Points Discussed

Table 2: Pre-Bid Queries and Clarifications

S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
1.	33	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Microprocessor based Fast GC with EPC/ PPC/AFC, and able to support 3 inlets, 3 detectors.	Microprocessor based Fast GC with EPC/ PPC/AFC, and able to support 2 inlets, 3 detectors	The revised clause should be read as: Microprocessor based Fast GC with EPC/ PPC/AFC,

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S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
					and able to support 2 inlets, 3 detectors
2.	33	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Built-in oven light that facilitates column installation should be available	This is a lockout feature and not available on standard GC instruments.	The revised clause should be read as: Built-in oven light that facilitates column installation if available.
3.	33	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Pressure program ramps: minimum 6 steps	This is a lockout feature and not available on standard GC instruments.	The revised clause should be read as: Pressure program ramps: minimum 3 steps.
4.	34	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Remove Dynamic Headspace sampler	This is a lockout feature and not available on standard GC instruments.	No Change, RFP clause prevails.
5.	34	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	It should be built with suitable trap adsorbent that allows highly sensitive analysis.	This is a lockout feature and not available on standard GC instruments.	No Change, RFP clause prevails.
6.	34	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Trap should be electronic cooling temperature range up to -20°C	This is a lockout feature and not available on standard GC instruments.	No Change, RFP clause prevails.
7.	34	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Ion source should have a unique front-open chamber to allow very easy removal of the ion source box, without removing the filament or lens thus permits easiest ion source maintenance	This is a lockout feature and not available on standard GC instruments.	The revised clause should be read as: Ion source should have facility to allow very easy removal of the ion source

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S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
					box, without removing the filament or lens thus permits easiest ion source maintenance
8.	34	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Mass analyzer: Quadruple Analyzers, Q1 and Q3 should be of solid metal, with pre-rods/Pre-filters for matrix elimination or equivalent.	Mass analyzer: Quadruple Analyzers, Q1 and Q3 should be of solid metal/quartz with heated quadrupole or pre- rods/Pre-filters for matrix elimination or equivalent	No Change, RFP clause prevails.
9.	34	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Vacuum pump: Dual inlet/stage Large Turbomolecular pump (>300 L/s)	Vacuum pump: Dual inlet/stage Large Turbomolecular pump (>250 L/s)	No Change, RFP clause prevails.
10.	34	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Mega bore (0.53 mm & Micro bore 0.1 mm) column can be connected directly.	Mega bore (0.32 or 0.53 mm & Micro bore 0.1 mm) column can be connected directly.	The revised clause should be read as: Mega bore (0.53 mm & Micro bore 0.1 mm) column can be connected directly will be preferred.
11.	35	4.1.1 Gas Chromatograph - Mass Spectrometers (GC-MS (Triple Quadrupole))	Detection Limit: Instrument detection limit on OFN should be 4 fg or better with the injection of 1 µl of 10 fg/µl OFN standard by statistically derived at 99 % confidence level from 8 sequential injection for MS/MS transition of m/z 272 & 222 using 30m column.	Detection Limit: Instrument detection limit on OFN should be 0.5 fg or better with the injection of 1 µl of 10 fg/µl OFN standard by statistically derived at 99 % confidence level from 8 sequential injection for MS/MS transition of m/z 272 & 222 using 30m column.	No Change, RFP clause prevails.
12.	38	4.5 Training	At site Pune, Navi Mumbai, Nagpur, Chandrapur	Kindly share the expectations of training like no. of days, scope of training etc.	Refer clause 4.5 Training on Page No. 38 of the RFP

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S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
13.	18	2.1 Earnest Money Deposit (EMD)	Earnest Money Deposit (EMD)	Request for EMD exemption for MSME business owner	No Change, RFP clause prevails.
14.	18	2.1 Earnest Money Deposit (EMD)	Unsuccessful bidder's EMD will be returned within Thirty (30) days from the date of finalization of the contract / tender.	Unsuccessful bidder's EMD should refunded within 7 days from the date of disqualification from the tender.	No Change, RFP clause prevails.
15.	27	3.1 Pre-Qualification Criteria	Legal entity	Add proprietorship firm	No Change, RFP clause prevails.
16.	28	3.1 Pre-Qualification Criteria	Networth criteria	Why is there a need of Networth When CA certified Annual Turnover is already being submitted	No Change, RFP clause prevails.
17.	27& 28	3.1 Pre-Qualification Criteria (PQ 4)	Project Experience 1: The Bidder should have experience in supply/ manufacturing, installation, commissioning/ annual maintenance of Gas Chromatograph	Include bidder/ OEM for Order copies/ completion certificate	No Change, RFP clause prevails.
18.	63	Annexure 8 Compliance Declaration for Technical Specifications	Triple Quadruple Mass Spectrometer: Mass Range: 10 to 1000 amu or better	Mass Range: 0 to 1050	No Change, RFP clause prevails.
19.	63	Annexure 8 Compliance Declaration for Technical Specifications	Triple Quadruple Mass Spectrometer: S. No 7.Triple Quadruple Mass Spectrometer: MRM mode: Octafluoronaphthalene (OFN) 100 fg, S/N ≥ 17,000 or more (with helium gas) m/z 272→ 222 using 30m column. High value of s/n will be preferable over lower value.	Sensitivity: 50000 or better (m/z 272-222)	No Change, RFP clause prevails.
20.	63	Annexure 8 Compliance Declaration for Technical Specifications	Triple Quadruple Mass Spectrometer: MRM/SRM speed: 800 transition / second.	SRM Speed: 1000 (transition/s)	No Change, RFP clause prevails.

S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
21.	63	Annexure 8 Compliance Declaration for Technical Specifications	Triple Quadruple Mass Spectrometer: Detection Limit: Instrument detection limit on OFN should be 4 fg or better	Instrument detection limit on OFN 2fg, (m/z 272 ➔ 222)	No Change, RFP clause prevails.
22.	63	Annexure 8 Compliance Declaration for Technical Specifications	Triple Quadruple Mass Spectrometer: Maximum Scan Speed 20,000 µ/sec	Scan speed: 22,000 or better	No Change, RFP clause prevails.
23.	62	Annexure 8 Compliance Declaration for Technical Specifications, S. No. 1 GC	Microprocessor based FastGC with EPC/ PPC/AFC, and able to support 3 inlets, 3 detectors	Microprocessor based Fast GC with EPC/ PPC/AFC, and able to support 2 inlets, 3 detectors. Trace 1610 GC has capability of two concurrent modular injectors with capability of adding unlimited modular injectors	The revised clause should be read as: Microprocessor based Fast GC with EPC/ PPC/AFC, and able to support 2 inlets, 3 detectors
24.	62	Annexure 8 Compliance Declaration for Technical Specifications, S. No 3 Split/ Splitless injector port -	Pressure program ramps: minimum 6 steps	Pressure program ramps: minimum 3 steps Trace 1610 GC SSL injector has minimum 3 steps. The flow programming /steps are rarely changed in the GC method. Moreover; having more than two- three steps in pressure programming complicates the analytical method .	The revised clause should be read as: Pressure program ramps: minimum 3 or more steps
25.	62	Annexure 8 Compliance Declaration for Technical Specifications	S. No 4 Programmable Temperature Vaporizer (PTV) injector port - 1 No.: Maximum temperature ramp rate at 200°C/min with 7 steps	Maximum temperature ram rate at 200°C/min with 3 or more steps Trace 1610 GC PTV injector port has 3 temperature programming steps. Having more than 2 or 3 steps complicates the analytical method and is rarely used	The revised clause should be read as: S. No 4 Programmable Temperature Vaporizer (PTV) injector port - 1 No.: Maximum temperature

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S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
					ramp rate at 200°C/min with 3 or more steps
26.	62	Annexure 8 Compliance Declaration for Technical Specifications	S. No 4 Programmable Temperature Vaporizer (PTV) injector port - 1 No.: Pressure program ramps: minimum 6 steps	Pressure program ramps: minimum 3 steps Trace 1610 GC PTV injector has minimum 3 steps. The flow programming /steps are rarely changed in the GC method. Moreover; having more than two- three steps in pressure programming complicates the analytical method.	The revised clause should be read as: S. No 4 Programmable Temperature Vaporizer (PTV) injector port - 1 No.: Pressure program ramps: minimum 3 or more steps
27.	62	Annexure 8 Compliance Declaration for Technical Specifications	S. No 6. Dynamic Headspace sampler: It should be built with suitable trap adsorbent that allows highly sensitive analysis.	Should be changed to static or dynamic HS Dynamic HS with trap is specific to one vendor and is a lockout feature. The static HS offered by Thermo is very sensitive and comparable to the sensitivity offered by Dynamic HS without the complications of Dynamic HS	No Change, RFP clause prevails.
28.	62	Annexure 8 Compliance Declaration for Technical Specifications	S. No 6. Dynamic Headspace sampler: Trap should be electronic cooling temperature range up to -20°C	Should be removed- specific to one vendor Dynamic HS with trap is specific to one vendor and is a lockout feature. The static HS offered by Thermo is very sensitive and comparable to the sensitivity offered by Dynamic HS without the complications of Dynamic HS	No Change, RFP clause prevails.
29.	62	Annexure 8 Compliance Declaration for	S. No 6. Dynamic Headspace sampler: should be a single operation software for	Dynamic HS - specific to one vendor	No Change, RFP clause prevails.

S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
		Technical Specifications	both GC & HS system and switchable between static and dynamic headspace techniques through method settings.	Dynamic HS with trap is specific to one vendor and is a lockout feature The static HS offered by Thermo is very sensitive and comparable to the sensitivity offered by Dynamic HS without the complications of Dynamic HS	
30.	63	Annexure 8 Compliance Declaration for Technical Specifications	S. No 7, Triple Quadruple Mass Spectrometer: Ion source should have a unique front-open chamber to allow very easy removal of the ion source box, without removing the filament or lens thus permits easiest ion source maintenance	This design is specific to one vendor. To be changed to just easy accessibility and maintenance to ion source TSQ 9610 has unique patented wireless design for the ion source; wherein the source can be easily accessed , assembly & disassembly of the source can be easily done without using any tools	The revised clause should be read as: Ion source should have facility to allow very easy removal of the ion source box, without removing the filament or lens thus permits easiest ion source maintenance
31.	63	Annexure 8 Compliance Declaration for Technical Specifications	S. No 7. Triple Quadruple Mass Spectrometer: Electron energy range up to 200eV or better	Electron energy range up to 150eV or better None of the application demands more than 70eV ; as all the commercial MS libraries are with 70eV.	No Change, RFP clause prevails.
32.	63	Annexure 8 Compliance Declaration for Technical Specifications	S. No 7. Triple Quadruple Mass Spectrometer: Detector: Sealed long-life electron multiplier tube; It should have Triple Axis or overdrive lenses technology or equivalent technology to cuts out unnecessary noise components thus phenomenally improving to give highest sensitivity. The shield plates near	The shield plate design is specific to one vendor and needs to be removed or generalized. Thermo Scientific TSQ 9610 has unique design of off-axis S shaped ion guide to remove neutral noise and contamination	No Change, RFP clause prevails.

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S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
			to electron multiplier should reduce more noise and subsequently reduce the load during the trace level (ppb / ppt) analysis and improves the detector's life.	followed by off-axis detector. The system gives the highest sensitivity in the market	
33.	64	Annexure 8 Compliance Declaration for Technical Specifications	S. No 7. Triple Quadruple Mass Spectrometer: Detection Limit: Instrument detection limit on OFN should be 4 fg or better with the injection of 1 µl of 10 fg/µl OFN standard by statistically derived at 99 % confidence level from 8 sequential injection for MS/MS transition of m/z 272 & 222 using 30m column.	Change to Detection Limit: Instrument detection limit on OFN should be 0.3 fg or better with the injection of 1 µl of 1 fg/µl OFN standard by statistically derived at 99 % confidence level from 8 sequential injection for MS/MS transition of m/z 272 & 222 using standard column. The detection limit of 4 fg is very basic and is for entry level model. The norms are getting stringent day by day ; hence the requirement is for the highest sensitivity ; so that even complex applications like residue analysis for pesticides, POPs can be easily achieved .	No Change, RFP clause prevails.
34.	64	Annexure 8 Compliance Declaration for Technical Specifications,	S. No 7.Triple Quadruple Mass Spectrometer: MRM mode: Octafluoronaphthalene (OFN) 100 fg, S/N ≥ 17,000 or more (with helium gas) m/z 272→ 222 using 30m column. High value of s/n will be preferable over lower value.	Change to -MRM mode: Octafluoronaphthalene (OFN) 100 fg, S/N ≥ 30,000 or more (with helium gas) m/z 272→ 222 using standard column. High value of s/n will be preferable over lower value. S/N of 17000 is for entry level model and is not sufficient for complex matrices or for POPs analysis	No Change, RFP clause prevails.

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Corrigendum 2

(Tender Ref. No.: MPCB/PSO/INST-02/25) (Tender ID: 2025_MPCB_1171264_1)

Minutes of Pre-bid meeting of RFP For "Procurement and Comprehensive Annual Maintenance of Six Gas Chromatograph - Mass Spectrometers for MPCB"

S. No.	Page No.	Section no.	Content of tender document requiring clarification	Points of clarification required	Clarification/Amendment by MPCB
35.		General	NA	The instrument should have facility to use Nitrogen as a carrier gas as an alternative instead of Helium; this will save cost & will be an economical option considering increasing cost of Helium gas & its availability	The revised clause should be read as: The instrument having facility to use Nitrogen as a carrier gas as an alternative instead of Helium will be preferred.
36.		General	NA	Head Space should have transfer line closed loop system instead of syringe based open to atmosphere design. This will avoid contamination & give better results in terms of better RSD, reproducibility & accuracy	No Change, RFP clause prevails.
37.		General	NA	We are willing to participate in above mentioned tender. We have been recently appointed as Distributor for Analytical Instruments hence we do not have purchase order copies to support pre-qualification criteria instead of we are willing to share copy of purchase order received from FESEM system worth approx. costing Rs. 10 Cr. Hence this will qualify our claim for participating high value tender. We are registered under MSME act attached herewith copy of MSME certificate we request you kindly exempt us from submitting EMD fees.	No Change, RFP clause prevails.

----------------------End of Document----------------------

5.5.25 K.V. Gawande Hc-SSO

05/05/2025 Dr. P.D. Khadlikar SSO & Head - C.Lab

5/5/25 (Dr. V.P. Thakur) PSO.

5/5/2025