

Minutes of the Pre-bid Meeting

Minutes of the Pre-Bid Meeting for Procurement of scientific equipment (ICB-III) for NCSCM, Chennai, held on 19.03.2014, 11.30 AM, at the Conference Hall of NCSCM, Chennai.

Members Present:

1. Dr.B.R.Subramanian, Senior Scientific Consultant, NCSCM – Chairman
2. Dr.D.Chandra Mohan, Senior Scientific Consultant, NCSCM, Chennai
3. Dr.V.Ravichandran, Department of Nuclear Physics, University of Madras.
4. Dr. Purvaja Ramachandran, Scientist G, NCSCM, Chennai
5. Dr.Kannan, Scientific Consultant, NCSCM, Chennai

Representatives of Participating Firms:

- | | |
|-----------------------------|---|
| 1. Mr.Vijaykumar | M/s.Icon Analytical, Bangalore |
| 2. Mr.Suresh | M/s. Carl zeiss India |
| 3. Mr.Szebrojet Nath | M/s.Spectra Agritec, New Delhi |
| 4. Mr.Adithiya Trivedi | M/s.Elron Instrument Co P Ltd,New Delhi |
| 5. Mr.P.Sivasubramanian | M/s. Elctornik International Inc, Chennai |
| 6. Mr. Karthick Ravishankar | M/s.Carbon Associates, Chennai |

The pre-bid meeting was held under the chairmanship of Dr. B.R. Subramanian, Senior Scientific Consultant, NCSCM, Chennai. The Chairman welcomed all participants to the meeting.

The participants were invited to present their queries for the various instruments for which tender were called for. In response to the queries and suggestions made by the prospective bidders, the response is appended as Annexure-A.

The prospective bidders were invited to participate in the bidding process after careful consideration to provisions of the bid document published and possible amendment subsequent to the present pre-bid meeting.

Queries and Clarifications made during Pre-BID meeting held for Procurement of Scientific Equipment for
 NCSCM, Chennai, on 19.03.2014 @ 11.30A.M

| Sl. No. | Particulars | Queries | Clarification/ Response |
|---|---------------------|---|--|
| LOT number 1: Environmental Scanning Electron Microscope | | | |
| 1. | Resolution: | In this technical specification of instrument it is mentioned as '2.0 nm or better in High Vacuum mode at 30kV, 3.0 nm or better in low vacuum mode for observation of samples without coating and 8nm or better @1kv . Can it be changed to resolution to 3nm@30kV in high vacuum & 8nm@3kV? | Please refer to Amendment |
| 2. | Pressure range | In this technical specification of instrument it is mentioned as ' High pressure mode at least 2800pa with water vapor system suitable for observation of Hydrated sample.'. Can this be changed to 'High pressure to atleast 2600Pa '? | No change in specification, as the requirement is based on the nature of our specific study. |
| 3. | Stage specification | In this technical specification of instrument it is mentioned as ' 5 axis motorized stage with movement facility for X = 120 mm or higher, Y = 120 mm or higher, Z = 5 – 50 mm or higher, Tilt = 0 to 70°, Rotation = 360° (continuous). Facility of stage co-ordinate and recall must be provided. Stage navigation software must be provided.'. Can this be changed to 'to change 4 /5 axis motorized with X=50mm, Y=50mm & Z=50mm. Kindly note that our proposed model has a chamber size of 284mm, which is large enough to accommodate big samples & also carry Correlative microscopy '? | No change in specification, as the requirement is based on the nature of our specific study. |

| Sl. No. | Particulars | Queries | Clarification/ Response |
|---|------------------------|---|--|
| LOT number 2: Portable Spectro-radiometer with accessories | | | |
| 1. | Required Accessories : | FOV : 1°, 8° lens to attach with standard fibre optic cable for reflectance and radiance measurements | FOV : 1°,2°,4°,5°, 8°,14° lens to attach with standard fibre optic cable for reflectance and radiance measurements |

| Sl. No. | Particulars | Queries | Clarification/ Response |
|---|-------------|---|---|
| LOT number 3: In situ Infra-Red Gas Analyzer to measure CO₂ (Carbon-di-oxide) and Water Vapor in Atmosphere | | | |
| 1. | General | The tender requirements asked for the measurement as Non dispersive infrared for CO ₂ and H ₂ O | Any other equivalent technology (e.g. Laser based) can be considered provided the accuracy and quality of the instrument is as per our requirements or better. Please refer to Amendment. |
| 2. | | Traceability: Traceable to gases to WMO standards for CO ₂ . | Traceable between 0-3000 ppm equivalent to WMO standards for CO ₂ . Accuracy will be the primary criteria |
| 3. | | Pressure compensation ranges 15 Kpa to 115 Kpa | Please refer to Amendment. |
| 4. | | Flow rate: 1 liter/minute | Deleted |
| 5. | | Calibration of H ₂ O | Calibration should be possible by using a due point generator. |
| 6. | | RMS noise | Deleted |
| | | | |

| Sl. No. | Particulars | Queries | Clarification/ Response |
|---|-------------|--|---|
| LOT number 4: In situ Gas Analyzer to measure CH₄ (Methane) in Atmosphere | | | |
| 1. | General | The tender requirements asked for the measurement as Non dispersive infrared for CH ₄ | Any other equivalent technology (e.g. Laser based) can be considered provided the accuracy and quality of the instrument is as per our requirements or better. Please refer to Amendment. |
| 2. | | High quality, continuous monitoring of in situ CH ₄ | Accuracy will be the primary criteria. Mean WMO GAW is not considered here. |
| 3. | | Pressure compensation ranges 50 Kpa to 110 Kpa | Please refer to Amendment. |
| 4. | | Output bandwidth: up to 20 Hz | Output Bandwidth: Selectable Band Width ~1, 2, 5, 10 or 20 Hz or better; Under high wind conditions, higher bandwidth could be useful. |
| 5. | | Canopy height of tripod | one (~10 ft) tripod for mounting the CH ₄ analyzer should be |

| Sl. No. | Particulars | Queries | Clarification/ Response |
|---------|-------------|---------|-------------------------|
| | | | quoted separately |

| Sl. No. | Particulars | Queries | Clarification/ Response |
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| | LOT number - 5 : Eddy Covariance System to measure CH₄/CO₂/H₂O Fluxes | | |
| 4. | Tripod (~10 ft) and Mounting Tower (mobile) | Height of the tower and canopy height | Please refer to Amendment |
| 5. | | Please remove point number 6 | Please refer to Amendment |
| 6. | | | |