



CORRIGENDUM

REFERENCE NO.: - P/NC/27/MKG/DR/OTE/24-25

DATE: 20/01/2025

NAME OF EQUIPMENT: "SUPPLY, INSTALLATION, COMMISSIONING, DEMONSTRATION & TRAINING OF ELEMENTAL ANALYZER BY ATOMIC ABSORPTION SPECTROPHOTOMETER"

NOTE: The Bids must be submitted in the Central Public Procurement Portal (URL: <https://etenders.gov.in/eprocure/app>) only. Manual/Offline bids shall not be accepted under any circumstances. Bidders should quote in INR only.

CONSEQUENT TO THE PRE-BID MEETING HELD ON 07/01/2025, FOLLOWING CHANGES ARE MADE IN THE TENDER UNDER REFERENCE

1. The nomenclature of the equipment shall be "ELEMENTAL ANALYZER BY ATOMIC ABSORPTION SPECTROPHOTOMETER" instead of "ELEMENTAL ANALYZER FOR LUBE & ENGINE OIL".
2. The revised technical specifications shall be as under;

Revised technical specifications for Elemental analyser by Atomic Absorption Spectrophotometer

1. **Optical System**
 - Fully automated double-beam optics with PC control.
 - Dual background correction or equivalent, designed for future customization.
2. **Monochromator**
 - Czerny-Turner/ Ebert-Fastie or equivalent design with motorized drive for automatic wavelength selection and peaking.
3. **Wavelength Range**
 - 190 nm to 900 nm or better with automatic line search capability.
4. **Bandwidth Selection**
 - User-selectable bandwidth with automatic switching.
5. **Diffraction Grating**
 - 1800 lines/mm resolution.
6. **Focal Length**
 - 300 mm or better.
7. **Lamp Capacity**
 - Motorized turret accommodating up to eight lamps.
8. **Operating Modes**
 - Flame absorption and emission.
9. **Sample Introduction System**
 - Modular system with a quick-change spray chamber, burner head, and nebulizer.
 - High-sensitivity corrosion-resistant nebulizer with Platinum/Iridium orifice included.
10. **Gas Control**
 - Computer-controlled gas flow system with oxidant and fuel monitoring.
11. **Ignition/Extinction**
 - Fully automated ignition and flame extinction.
12. **Burner**
 - Titanium burner for enhanced durability.
 - N₂O nitrous oxide titanium universal burner for AAS
 - Software-controlled burner movement in three directions such as horizontal, vertical, and angular adjustments.
13. The system must have capacity to upgrade for installation of integrated graphite furnace.
14. **Safety Features**
 - Automatic interlocks to shut off gas flow when flame detection fails or other faults are detected.
 - Safety mechanisms to prevent ignition if critical components are improperly installed or gas pressures are insufficient.
 - Leak detection, flame monitoring, and automatic flame extinction in power failure scenarios.
 - Supports safe switching between Air-C₂H₂ and N₂O-C₂H₂ flames with flow rate monitoring.
15. **Detector**
 - PMT detector covering the full wavelength range.
16. **Software**
 - Comprehensive interface for instrument control, real-time monitoring, and automated optimization of settings.
17. **Safety shut down system**
 - Safe shutdown from all operating modes even in case of sudden power failure.

18. **Lamp kit for elements**
 - Ni, Al, Fe, Cu, Cr, Zn, Cd, Pb, and Li.
19. **Sensitivity:**
 - >0.9 Absorbance for 5 mg/l. Cu with RSD <0.5%
20. **Regulatory Compliance**
 - Compliance with all relevant regulatory standards. CE compliance certificate with report issued by competent organization
21. **Accessories**
 - Provide all necessary accessories, including air compressor, exhaust hood vent assembly, auto atomizer changer.
 - Dust cover, drain assembly
22. **Workstation**
 - High-performance computer with windows 11 professional with processor, i5, 16 GB RAM, 512 GB SSD, MS Office
 - Includes LaserJet printer and all operational software.
 - AAS spectrophotometer software. CFR21 Part 11-compliant software with database support to record and store all events and results
 - Software CDs
23. **Air Compressor**
 - Oil free compressor with 30 L or more capacity
 - Automatic switch off/on
 - Maximum pressure 110 psi or better
 - Gas regulator, fittings and moisture removal filter.
24. **Fume Hood**
 - SS Fume hood assembly with centrifugal blower for exhaust vent, collectable pipes/duct, wall mounting fixing clamp, etc.
25. **Gas Cylinders**
 - Acetylene gas cylinders of 47 L for AAS - explosive safety certified with double stage pressure regulators.
 - Nitrous oxide gas cylinder of 47 L for AAS - explosive safety certified with pressure regulator
26. **References for calibration**
 - AAS standard calibration kit 1000 ppm 100 ml NIST traceable Ni, Al, Fe, Cu, Cr, Zn, Cd, Pb, and Li
27. **Training**
 - Training of three people for three days at site.
28. **UPS with Batteries**
 - 5.0 KVA UPS unit with minimum 15 minutes backup for the entire system, including the computer.
29. **Documents**
 - User manual
30. **Warranty**
 - One year warranty.

The above amendments shall amount to amendments of the relevant terms of our Bid Document for CGCRI Tender No. **P/NC/27/MKG/DR/OTE/24-25** dated **20/12/2024**.

All other Tender terms and conditions remain unchanged.

Bidders should quote only in **INR**. Bidding is open to only Class I /Class II Local suppliers as defined under the relevant provisions of the Public Procurement (Preference to Make in India) Order 2017.

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20/01/2025

Section Officer (Stores & Purchase)