

Government of India
Bhabha Atomic Research Centre
Electromagnetic Applications & Instrumentation Division

Ref No: EmA&ID/2022/PKR/49019

Date: 13/06/2022

-----To whom so ever it may concern-----

Sub: Engineering support for development, integration and testing of gas analysis system
conforming to technical specification no : EmA&ID/EMAS/PKR/22/61 dated 10.06.2022

Dear Sir/Madam,

1. Quotations are invited for Engineering support for development, integration and testing of gas analysis system conforming to technical specification no : EmA&ID/EMAS/PKR/22/61 dated 10.06.2022.
2. Bidder shall quote for manpower, purchase of raw materials, development & testing conforming to tender technical specification.
3. Taxes and Excise Duties shall be quoted separately. Form AF / H whichever is applicable shall be provided, if required.

The quotation must reach The Head, Electromagnetic Application & Instrumentation Division by 24.06.2022 and must be sent in a sealed envelope super scribed with the reference number & the due date given above only through India Ordinary Post/Speed Post.

4. The address on the envelop should read: The Head,
Electromagnetic Application & Instrumentation
Division,
RCnD Bldg., North Site
BARC, Trombay,
Mumbai - 400 085.
(Kind Attn: RAI P K, TO/C)
5. The bidder shall complete the job within 3 months from the date of firm work order issued to the bidder.
6. Head, Electromagnetic Application & Instrumentation Division reserves the rights to accept / reject any or all quotations without assigning any reason.
7. Quotation must also indicate the validity of offer. Quotation must also indicate the GST No and PAN number of the supplier.
8. The quotation has to be signed by authorized person with company seal.
9. Payment will be made by EFT only after satisfactory completion of work on production of bill, delivery challan and advance stamped receipt. Income tax as applicable will be collected at the time of payment.
10. In case of any technical clarifications, the supplier may kindly contact the indenting officer through Email only. (Email ID: pkrai@barc.gov.in)

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(RAI P K)
TO/C, EmA&ID

Technical specification

Document no.	Revision no.	Date of Issue	No of pages
EmA&ID/EMAS/PKR/22/61	0	10.06.22	2

Engineering support for development, integration and testing of gas analysis system

1.0 SCOPE

This document specifies the requirement of engineering support for development, integration and testing of gas analysis system. The complete job shall be carried out strictly as per requirements, specifications and its compliance standards as detailed in this document. In this specification the supplier shall be referred to as the “supplier” and Bhabha Atomic research Centre shall be referred to as the “buyer”.

Supplier shall carry out the development of gas analysis system with raw materials available provided by the buyer. The machining, welding, surface cleaning, electro polishing shall be carried out to meet technical requirements. The developed system shall be integrated with the existing system for upgradation to carry out gas composition analysis.

The brief description of contents of the tender specification document is as described below.

Para 2.0 gives the detailed job description.

Para 3.0 gives the general requirements.

Para 4.0 gives the requirements for raw material procurement.

Para 5.0 gives the requirements of supplier qualifications.

Para 6.0 gives the requirements of packaging and safe delivery.

Para 7.0 gives the confidentiality clause.

2.0 DETAILED JOB DESCRIPTION

2.1 The glass analysis system consists of analysis sensor which is typically of 1mm thick consisting of an electrically insulating material with hexagonal array of tiny holes of 10um. Glass fibers shall be bundles and fused together in the existing high temperature furnaces. The fused bundle shall be cut into slice using CNC cutting machine. Holes shall be patterned and in the vacuum furnace thin layer of semiconductor shall be deposited.

2.2 After successful deposition of the holes with semiconductor material, surface electrodes shall be developed for electrical connections. The sensor shall then be integrated with glass to metal sealed vacuum feed through in a clean inert gas environment. Hoods to carry out the integrated assembly shall be generated in-house. Any material required for the development shall be provided by the buyer.

2.3 The developed gas analysis sensor system shall be integrated with the gas analysis system, evacuated to 10^{-6} torr , tested for helium leak detection . The expected helium leak rate shall be less than 10^{-8} mbar.l/s.

3.0 GENERAL REQUIREMENTS

3.1 The supplier shall workout a detailed design to meet fabrication requirements and work description. They shall submit along with the offer dimensional drawing giving all the salient features, material details of individual items and assembly view of the fixtures.

3.2 Supplier should have similar work experience and along with the offer, shall submit the details of past experience with documentary proof.

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3.3 The supplier shall incorporate minor changes in the design as required at the time of execution of work at no extra cost.

3.4 The above job shall be done strictly under the supervision of our engineers in test facility at BARC premises.

3.5 Working personnel shall observe all the safety precaution during working.

3.6 The working personnel shall behave well with other officers and workers inside BARC campus.

3.7 The contractor shall be solely responsible, in case of any casualty involving working personnel. However, first aid will be provided by BARC.

3.8 General BARC security rules shall apply to all the working personnel.

3.9 Entry permit will be issued on weekly basis and contractor shall have valid photo pass with valid Police Verification certificate (PVC) as per the norms of BARC security.

3.10 Prior permission will be taken from security if the persons are required to do the job on Saturday, Sunday, Holidays and beyond normal working hours (08:00 to 18:00 hrs).

4.0 RAW MATERIAL PROCUREMENT

4.1 All the raw material required for the system developed will be provided by the buyer.

5.0 REQUIREMENTS OF SUPPLIER QUALIFICATIONS

5.1 The supplier shall be evaluated on the basis of the following criteria

5.2 The supplier shall provide the list of their employees along with their valid PVC certificate, who are intended to work in this job.

6.0 REQUIREMENTS OF PRICE AND DELIVERY SCHEDULE

6.1 The complete job is expected to be completed in a duration of 3 Months.

7.0 CONFIDENTIALITY CLAUSE

7.1 No party shall disclose any information to any third party concerning the matters under this Contract generally. In particular, any information identified as "Proprietary" in nature by disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to sub-contractors, consultants, advisors or the employees engaged by a party with equal force.

7.2 "Restricted information" categories under section 18 of the Atomic Energy Act, 1962 and "Official secrets" under section 5 of the Official Secrets Act, 1923: Any contravention of the above mentioned provisions by any contractor / sub-contractor, consultant, advisor or the employees of the contractor will invite penal consequences under the aforesaid legislation.

7.3 Prohibition against the use of BARC's name without permission for publicity purpose. The contractor or sub-contractors, consultants, advisors or the employees engaged by a party shall not use BARC's name for publicity purpose through any public media like: press, radio, TV or Internet without any prior approval of BARC (wide circular ref.: 2/Misc-9/Lgl/2001/92 date 30/04/2001).

P. Ravi