



### Notice Inviting E-Tender

E-Tender No. ADM: STR: 3166: MOF-13: Spectrometer:2023-24

Date: 5/09/2023

C.I.R.T., Bhosari, Pune invites E-Tender in Two Bid Systems (Technical and Financial) from Original Equipment Manufacturers (OEMs)/ Authorised Distributors for **supply and installation of Testing Equipment Spark Optical Emission Spectrometer (OES) Analyser** at C.I.R.T., Bhosari, Pune.

Sr. No	Description	EMD	Last Date for Online Submission	Technical Bid Opening
01	Supply, installation and commissioning of Spark Optical Emission Spectrometer (OES) Analyser	INR 1,50,000/-	5/09/2023 Time- 17.30	20/09/2023 Time-11.00

Interested Test Equipment Manufacturers/ Authorised Distributors of Test Equipment Manufacturers, with valid authorisation letter of Test Equipment Manufacturer may view and download detailed tender documents from

### C.I.R.T.'s e-Tender portal.

[www.cirtindia.com/tendernotice.html](http://www.cirtindia.com/tendernotice.html) or <https://tenderwizard.com/CIRT>

All Bids must be submitted through the Online portal.

#### **Salient information about the E-Tender :**

1] **Who can participate in this e-Tender:** The bidders who have registered with C.I.R.T.'s e-Tender portal can only participate in this tender process.

2] **How to Register:**

a) The prospective bidders have to register with CIRT by paying **Annual Registration Charge of Rs. 2,000/- (+) G.S.T.** (as applicable) to e-tender service provider through E-Tender portal of CIRT by online payment. On completion of the registration process, the bidders will be provided user ID and Password. After receipt of User ID and Password, Bidders can log on at our e-Tender portal for downloading & uploading tender documents.

b) **Tender Processing Fee (Non-Refundable) with G.S.T.** (as applicable) is payable online on the portal of CIRT e-tendering website for applying the tender online.

Note: Banking Transactions charges are applicable for online payment

3] **Device requirement for participation in e-Tender** : Bidder should have valid Class III Digital Signature Certificate (DSC) device for participating in e-Tender. For integrity of data, its authenticity /non-

repudiation of electronic records shall be in compliance with IT Act 2000 as amended from time to time. It is necessary for each user to have a Digital Certificate (DC), also referred to as Digital Signature Certificate (DSC) of Class III issued by a Licensed Certifying Authority (CA). The contact details for e-Tendering are furnished below :-

Details of the Service Provider:

Contact Persons	Telephone / Email	For vendor Registration / DSC/Any other issue regarding e- Tender Process,
Mr. Sanjay Chandak	Mobile: 9665721619 Email: sanjay.kc@etenderwizard.com	
Mr. Arijeet Kumar	Contact No : 8800445981 Email: arijeet@etenderwizard.com	
Helpdesk :	Contact No : 01149424365	

Note: Above contact details are only related to technical queries pertaining to submission / upload of E-Tender, for any other queries please email to [stores@cirtindia.com](mailto:stores@cirtindia.com) or contact Stores officer on 020 – 67345300.

4] **Availability of Tender Documents:** All bid documents (Technical and Commercial) are available ONLINE at CIRT's e-Tender portal <http://tenderwizard.com/CIRT>. The registered bidders can download the Bid from these websites. If tender form fee of Rs.2000/- plus GST is not received along with physical technical bid submission, the bid will be disqualified.

5] **Mode of Submission :** The Tender Document should be submitted in two parts:

**PART-A TECHNICAL BID** – Technical Bid shall be submitted **online** (all documents to be signed and scanned) and a hard copy of the same along with Tender form fee and EMD vide DDs drawn in favour of Director, CIRT and payable at Pune, in the envelope superscribed as Technical Bid for “Spark Optical Emission Spectrometer (OES) Analyser” to be submitted by the bidder.

**Note : 1. Bidder should clearly mention the Tender no. and Title of the tender which is submitted.**

**2. Technical bid must be compulsorily submitted both online and hard copy within stipulated date and time, failing which the bid would stand disqualified.**

**Part –B COMMERCIAL BID** – Commercial Bid to be submitted **online only**. Commercial bid sent through hard copy will not be accepted and shall be disqualified. The bidder should submit the Commercial Bid online only in the attached **Excel Format** as detailed at chapter 5.

While uploading / submitting the documents, it should be ensured that the correct tender no. and tender title is mentioned.

6] All pages of Tender documents and Addenda / Corrigenda (if any) must be signed with proper official stamp and date by the authorized signatory of the Bidder / or authorized power of Attorney holder (relevant authorization document to be enclosed) at the lower right hand corner.

7] Bidders are advised to visit CIRT's e-Tender portal <http://tenderwizard.com/CIRT> regularly for any Addenda / Corrigenda.

**CENTRAL INSTITUTE OF ROAD TRANSPORT**  
**Post Box No.1897, Bhosari, PUNE – 411 026 (INDIA)**  
**Tel. (91) 20 67345300 (30 Channels) Fax : (91) 20 67345403**  
**Website : [www.cirtindia.com](http://www.cirtindia.com)**

**TENDER DOCUMENT SUBMISSION – A BRIEF**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Details</b>
1.	Tender Reference No.	ADM: STR: 3166: MOF-13: Spectrometer:2023-24
2.	Tender Title	Spark Optical Emission Spectrometer (OES) Analyser
3.	Tender Issuing Authority	Central Institute of Road Transport, Pune
4.	Equipment Installation Location	CIRT Pune Nasik Road Bhosari, Pune 411 026
5.	Tender Form Fee	Rs.2000/- (Rupees One thousand only) Plus GST to be paid through Demand Draft in favour of “Director CIRT” *Firms having MSME registration are exempted from payment of tender form fee.
6.	Earnest Money Deposit	Rs. 1,50,000/- (Rupees One Lac Fifty Thousand only) through Demand Draft in favour of “DIRECTOR CIRT” *Firms having MSME registration are exempted from payment of Earnest Money Deposit. <b>Note: * MSME registered firm shall submit copy of MSME UDYAM registration certificate.</b>
7.	Submission of Pre-bid queries (For Pre-Bid Query Format Refer <b>Annexure A</b> )	<ul style="list-style-type: none"> <li>• On or before 11/09/2023 Time-17.00 by email</li> <li>• Email to be sent to <a href="mailto:stores@cirtindia.com">stores@cirtindia.com</a></li> </ul>
8.	Pre-bid meeting Date, Time and Mode	On 12/09/2023 Time-14.30 in Online & Offline mode.
9.	Pre-bid meeting Venue	Central Institute of Road Transport Conference Hall Pune Nasik Road, Pune 411 026 For online Link will be sent upon receipt of request to <a href="mailto:stores@cirtindia.com">stores@cirtindia.com</a> The request should be received on or before 11/09/2023 Time-17.00
10.	Last Date of submission of online bids Technical & Financial	18/09/2023 at 1730 hrs
11.	Physical Submission of only Technical Bid	18/09/2023 by 1730 hrs
12.	Technical Bid Opening	20/09/2023 at 1100 hrs @ CIRT, Pune
13.	Commercial Bid Opening	Date will be finalized on conclusion of technical bid evaluation.
14.	Address for Communication and Submission of Technical bids	DIRECTOR Central Institute of Road Transport Post Box. 1897, Pune Nasik Road, Pune 411026. Tel: 020-67345300
15.	Download Request for Proposal & Upload e-tender	A copy of the tender document should be downloaded from <a href="http://www.cirtindia.com/tenderNotice.html">www.cirtindia.com/tenderNotice.html</a> or <a href="https://tenderwizard.com/CIRT">https://tenderwizard.com/CIRT</a>

The Director, C.I.R.T. Bhosari, Pune 411 026 reserves the absolute right to accept / reject any or all bids at any stage of the tender process without assigning any reason whatsoever.

**Check List for Documents to be enclosed (bidder is requested to fill the relevant details):-**

(please ✓ in appropriate column)

1.	<b>Payment of Tender form fee [Non-refundable] [DD No._____ dt. _____ Bank _____for Rs.2000/- plus GST]</b>	
2	<b>Demand Draft favouring Director, CIRT for EMD (Refundable) (DD No._____dt._____Bank _____for Rs.1,50,000/-]</b>	
3	<b>Compliance Statement of Terms &amp; Conditions (As per below Table - 1)</b>	
4	<b>List of Clientele (As per below Table - 2 )</b>	
5	<b>Prebid Queries format – Annexure A</b>	
6	<b>Financial Details of the Bidder – Annexure B</b>	
7	<b>Bidder Information Sheet - Annexure C</b>	
8	<b>Anti- Blacklisting Certificate- Annexure D</b>	
9	<b>Details for Pre-requisite Infrastructure Requirements for Installation &amp; Commissioning of the Test Equipment Spark Optical Emission Spectrometer (OES) Analyser – Annexure ‘E’</b>	
10	<b>Technical Compliance Sheet - Annexure ‘G’</b>	
11	<b>Undertaking from the test equipment manufacturer in case of bidder is test equipment manufacturer - Annexure ‘H’</b>	
12	<b>Undertaking from the test equipment manufacturer in case of bid is submitted by authorised distributor - Annexure ‘I’</b>	
13	<b>Self Certification under preference to Make in India Order Certificate- Annexure ‘J’</b>	
14	<b>Self-Certification to be submitted by Non-local suppliers - Annexure J1</b>	
15	<b>Format for submission of letter from purchaser of Spark Optical Emission Spectrometer (OES) Analyser - Annexure ‘K’</b>	

**Table 1****COMPLIANCE STATEMENT OF TERMS & CONDITIONS**

(Please read the Terms & Conditions of Tender at Chapters 1-5)

**I hereby accept all the terms & conditions of the tender including following: -**

<b>Clause</b>	<b>Chapter No./point no.</b>
Pricing, Schedule of Payment Terms and Taxes & Duties	<b>3( 1-3 )</b>
<b><u>Warranty</u></b> A) Minimum 3 years (comprehensive) B) Free Replacement on Door Delivery basis. C) Performance Bank Guarantee D) Extension of Warranty	<b>2( 5 )</b> <b>2( 5-a )</b> <b>2( 4 )</b> <b>2( 6 )</b>
<b><u>Delivery</u></b> <b>A)</b> Door Delivery <b>B]</b> Penalty on delayed delivery	<b>2( 2-A )</b> <b>2( 2-B )</b>
<b>Pre-despatch Inspection</b>	<b>2( 1 )</b>
<b>Installation, Commissioning of Test Equipment and Training</b>	<b>2( 2 )</b>
<b>Technical &amp; Commercial compliances:</b>	
<b>Technical Specification:</b> Compliance to the Technical Specification/details	<b>4 (1-3 )</b>
<b>Calibration:</b> Calibration certificates issued by OEMs who are the manufacturer of OES should be acceptable by NABL.	<b>4 (1-3 )</b>
<b>Annual Maintenance Contract (AMC):</b> Compliance to the AMC as per the tender condition.	<b>2( 7 b )</b>
<b>Spare Parts:</b> Bidder should declare the spare parts supply in addition to machine for maintenance or breakdown under warranty and successful bidder should give undertaking that with supply of machine will supply the declared spares too.	<b>2( 5 a-d )</b>
<b>Performance Bank Guarantee:</b> Compliance to the performance bank guarantee as per the tender condition.	<b>2( 4 )</b> <b>2( 7-g )</b> <b>3 ( 2-c )</b>

<b>Customer Service Support after Warranty Period:</b> Compliance to the customer service support after warranty period as per the tender condition.	<b>2 ( 7 )</b>
<b>Authorized agency for Technical Services:</b> If bid is submitted by authorized distributor then distributor shall be associated with original equipment manufacturer for minimum last 7 years and have expertise of installation, commissioning, maintenance & repair in most effective manner. Accordingly, the relevant documents of the OEM for authorisation shall be submitted with tender. In case the authorised distributor fails, it is the responsibility of the OEM to fulfil the commitments as per undertaking Annexure T'.	<b>2( 10 )</b>

In the event of any dispute, the legal matter shall be subjected to the jurisdiction of Pune Court only. We confirm with our acceptance to the instructions as given.

Name & Signature of Authorised Signatory

**Table 2**

**CLIENT LIST**

Tenderer must provide existing client list. A list of such clients shall be furnished in the following format.

Sr. No.	Name of Company, Postal Address	Name of Contact Person; contact no., email id	*Purchase Order / Work Order Details ( completed projects)	Date of Installation	Feedback from Clients on their letterhead
1					
2					
3					
4					

\*Copy of Purchase order/work order/ Feedback letter from client/s must be scanned and uploaded (for minimum three clients)

Name & Signature of Authorised Signatory  
(with Company stamp)

## INDEX

<b>Chapter No.</b>	<b>Details</b>	<b>Page no/s.</b>
1.	<b>Instructions to Bidders</b>	8
1.1	Earnest Money Deposit (EMD)	8
1.2	Tender Form Fee	9
1.3	Eligibility criteria of Bidder	9-12
1.4	Terms and conditions for Submission of Tender document	12-13
1.5	Pre Bid Meeting	13
1.6	CIRT's right to accept and reject Bid	13-14
2.	<b>Conditions of the Tender</b>	14
2.1	Pre dispatch Inspection	14
2.2	Delivery	14-15
2.3	Installation & Commissioning	15
2.4	Performance Bank Guarantee	15
2.5	Warranty	16-17
2.6	Extension of Warranty	17
2.7	Customer Service Support after Warranty period	17-18
2.8	Training of CIRT personnel & officials	19
2.9	Recovery of Damages	19
2.10	Authorised agency for technical services	19
2.11	Arbitration, Legal formalities	20
2.12	Force Majeure Clause	20
3.	<b>Schedule of Requirement</b>	21
3.1	Pricing	21
3.2	Payment schedule	21
3.3	Taxes	21
4.	<b>Specification &amp; Allied Technical details</b>	22
4.1	Specification	22
5.	<b>Price schedule for Bidders to quote price</b>	23
5.1	Commercial Bid – screenshot	24-27
6.	<b>Annexures A-E</b>	28-32
7.	<b>Annexure F (Technical specification)</b>	33-40
8.	<b>Annexure G (Technical Compliance Sheet)</b>	41-47
9.	<b>Annexure H (Undertaking from Distributor of Test Equipment Manufacturer)</b>	48
10.	<b>Annexure I (Undertaking from Distributor of Test Equipment Manufacturer)</b>	49
11.	<b>Annexure J (Self Certification under preference to Make in India Order Certificate)</b>	50
12	<b>Annexure J1 (Self-Certification to be submitted by Non-local suppliers )</b>	51
13.	<b>Annexure K (Format for submission of letter from purchaser of Spark Optical Emission Spectrometer (OES) Analyser)</b>	52

## **Chapter 1 Instruction to Bidders**

### **1. Earnest Money Deposit (EMD) / Bid Security:**

Earnest Money Deposit [EMD] will have to be paid along with the tender by a Crossed Demand Draft drawn on any Nationalized /Scheduled Bank in favor of the Director, CIRT, and payable at Pune. The details of the same should be submitted in the envelope containing Technical Bid. Tender without Earnest Money Deposit will be rejected. Submission of Bank Guarantee, in lieu of EMD draft will not be accepted.

Bidder shall submit the EMD of an amount INR 1,50,000/- (In words Rs. One Lac Fifty Thousand only) along with Technical Bid before the due date & time of closing of the bidding process.

In case of foreign manufacturers, EMD to be in Indian Rupees (INR) only. The CIRT shall not be liable for payment of any interest on EMD.

Firms having MSME registration are exempted from payment of Earnest Money Deposit. MSME registered firm shall submit copy of MSME UDYAM registration certificate.

**A. Refund of EMD to unsuccessful Tenderers:** EMD will be refunded by cheque/DD/NEFT to the unsuccessful tenderer, after decision on the acceptance of the successful tenderer is taken or within 6 months from the date of opening of tender, whichever is earlier. Transaction will be done in INR for refund of EMD to foreign bidders.

**B. Earnest Money Deposit of successful tenderer:** EMD will be refunded by cheque/DD/NEFT to the successful tenderer only on satisfactory execution of Purchase Order(PO) and submission of Performance Bank Guarantee. If the successful tenderer refuses to accept the PO with terms and conditions of tenders and/or as mutually agreed terms, EMD will be forfeited, and no further correspondence will be entertained in the matter. In cases, where the successful tenderer does not convey a written acceptance of order within 15 days of date of issue of Purchase Order. the Purchase Order will be cancelled and EMD will be forfeited.

**C. Validity of offer:**

The offer should be kept valid for a minimum period of **6 months** from date of opening of the tender. In the case of successful tenderer, the approved prices shall remain valid



till Purchase Order is fully executed. The bidder shall not withdraw or modify their Bids during the period of validity.

## 2. Tender Form Fee

A complete set of tender documents may be downloaded by interested eligible tenderer. For MSME registered Firms are exempted from tender form fee.

**MSME registered firm shall submit copy of MSME UDYAM registration certificate.**

The tender form fee and EMD to be paid by two separate Demand Drafts and kept in two sealed envelopes. For physical submission, the two envelopes along with Technical document should be kept in one envelope superscribed “ To supply, install and commissioning of **Spark Optical Emission Spectrometer (OES) Analyser** -Technical bid” so as to reach CIRT, Pune by 18/09/2023 upto 17.30 of bid submission. Late tenders shall not be accepted, under any circumstances. The technical bid shall be opened as per schedule at CIRT Office, Pune in the presence of bidders who may like to be present.

## 3. Eligibility criteria of bidder

S.NO	TECHNICAL ELIGIBILITY CRITERIA	SUPPORTING DOCUMENTS TO BE SUBMITTED BY BIDDER
1	Bidder must be registered as per the relevant Act (e.g. Companies Act or Partnership Act or any other relevant Act) in India or as per the country of registration.	Copy of Certificate of Incorporation (Copy of registration certificate under Company Act) or (Copy of registration, under Partnership Act) or equivalent document, as applicable, issued by a Competent Government Authority to be submitted by bidder.
2	Bidder must be class I or class II local supplier Or Non-Local supplier as per order no. P45021/2/2017-PP (BE II) dated 16.9.2020 of MoCI, GOI , P-45021/102/2019-BE-II Part(1) (E-50310) dated 04.03.2021 and latest amendments, if any.	Declaration is to be submitted by Class I and Class II suppliers in Technical bid as per the Annexure J and by Non-Local Suppliers as per Annexure J1 of this tender.
3	Bidder must be Original Test Equipment manufacturer (OEM) / Authorized Distributors of Test Equipment Manufacturers, with valid authorization letter of Test	Copy of the audited annual accounts of the Original Test Equipment manufacturer (OEM) & Authorized Distributors for each of the three financial years (FY 2017-18, FY 2018-19 and FY 2019-20) and a certificate (on the letter

	<p>equipment Manufacturer with Average annual turnover of the <b>Spark Optical Emission Spectrometer (OES) Analyser</b> manufacturer in the 3 (three) financial years (FY 2017-18, FY 2018-19 and FY 2019-20) shall be at-least Indian Rupees <b>Twenty Five crore</b> and Average annual turnover of the Authorized Distributors in the 3 (three) financial years (FY 2017-18, FY 2018-19 and FY 2019-20) shall be at-least Indian Rupees <b>Ten crore</b>.</p> <p><b>For MSME register firms</b> Average annual turnover in the 3(three) financial years (FY 2017-18, FY 2018-19 and FY 2019-20) shall be as per MSME norms.</p>	<p>head) of the Statutory Auditor of Original Test Equipment manufacturer (OEM) &amp; Authorized Distributors duly signed &amp; stamped and clearly mentioning the turnover details of each year in the three financial years (FY 2017-18, FY 2018-19 and FY 2019-20) Details to be submitted as per <b>Annexure B</b></p>												
4	<p>Bidder / principal (in case the bid is submitted by authorized distributor) should have minimum Seven years of experience of manufacturing of <b>Spark Optical Emission Spectrometer (OES) Analyser</b> as per the Technical Specification given at Annexure F and bidder should have sold at least <b>Ten Spark Optical Emission Spectrometer (OES) Analysers</b> equipment's in <b>last seven years to the reputed organization</b>.</p>	<p>The bidder shall submit following information. along with documentary evidence such as Copy of contract and/or work order or purchase order and copy of delivery challan and invoice for the sold equipment.</p> <p>Details to be submitted as per <b>Table 2 (pg 6) and Annexure C</b></p>												
5	<p>1. Bidder shall submit the list of clients to whom they have sold the Spark Optical Emission Spectrometer (OES) Analyzer in last 7 years.</p> <p>2. The bidder shall submit the letter from at least seven such purchaser who have purchased the Spark Optical</p>	<p>1. List of clients to whom bidder have sold the Spark Optical Emission Spectrometer (OES) Analyzer in last 7 years in following format:</p> <table><tr><td>Sr. No</td><td>Name &amp; address of the purchaser</td><td>Name of the contact person</td><td>Email ID of purchaser</td><td>Contact number/ Mobile number of purchaser</td><td>Presently the machine is operating satisfactory please</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	Sr. No	Name & address of the purchaser	Name of the contact person	Email ID of purchaser	Contact number/ Mobile number of purchaser	Presently the machine is operating satisfactory please						
Sr. No	Name & address of the purchaser	Name of the contact person	Email ID of purchaser	Contact number/ Mobile number of purchaser	Presently the machine is operating satisfactory please									

	Emission Spectrometer (OES) Analyzer as per the Technical Specification given at Annexure F during last 7 years on the letter head of purchaser about the present satisfactory operation of the sold Spark Optical Emission Spectrometer (OES) Analyzer.	<table><tr><td></td><td></td><td></td><td></td><td></td><td>mention (Yes/ NO)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>						mention (Yes/ NO)						
					mention (Yes/ NO)									
6	Bidder should have GST registration and valid PAN documents	2. The Letters from seven purchasers during last 7 years on the letterhead of the purchaser about satisfactory operation of Spark Optical Emission Spectrometer (OES) Analyzer presently as per Annexure K. Valid GST registration Certificate, PAN documents shall be submitted.												
7	Bidder must not have been blacklisted / terminated for fraudulent practices or for non-fulfilment of contract by any of its clients including Indian government /State Government departments / Ministries / Government Undertakings or Corporations/ Government Bodies / Autonomous bodies / VMs and Public Sector Undertakings in India or abroad, as on the date of submission of Bid.	Self-certification undertaking signed by the Authorized Signatory of the bidder on the Bidder's letter head. Details to be submitted as per <b>Annexure D</b> . In Case the tender is submitted by authorized Distributor, Self-certification undertaking is to be submitted by both the Original equipment manufacturer and the authorized distributor.												

**Note:**

1. It is mandatory to submit the specified documents in support of the above Technical Eligibility Criteria and the Bidder shall be disqualified, if the bidder fails to provide any of the above specified documents.
2. Bidders should necessarily give the details in the formats given in Annexure/forms of this tender. All the details should be given in the prescribed format only and in accordance to the terms and conditions as mentioned in this tender.
3. Bid should be comprehensive and must consider the Scope of Work to be completed.
4. CIRT at its sole discretion may seek clarifications from any Bidder on the Technical Eligibility Criteria and any information submitted in his Bid.
5. Any Bidder submitting any information regarding price/financial quote in his Technical Bid shall be disqualified from the Bidding Process.
6. For the authorized distributor of manufactures pertaining to countries, sharing land border with India, the manufacture should have registration certificate of appropriate Competent authority of Government of India, as per the applicable statutory Government of India rules. The copy of valid certificate shall be submitted along with tender.

7. Bidder will have to give technical presentation of their quoted equipment during technical evaluation of bid. CIRT shall communicate the date of presentation. Cost of travel for Technical Presentation at CIRT for bidder representative will be on bidders account.
8. CIRT will visit the units of earlier purchasers of Spark Optical Emission Spectrometer (OES) Analyser to whom the bidder has supplied the same for inspection and feedback. Any shortcomings observed for the operations of Spark Optical Emission Spectrometer (OES) Analyser, in such inspection will render the technical bid of bidder liable for the rejection. The cost of travel for such inspection will be on CIRT's account.
9. **Bidders should submit supporting documents like Installation and commissioning report, copies of PO of purchasers during last 7 years and all other documents listed above with technical bid. This will be verified before evaluating technical specifications. In case bidder does not meet the criteria or CIRT come across any information about negative feedback from their purchasers then the bid will be not considered for further evaluation and shall be rejected.**

#### **4. Terms and conditions for Submission of Tender document**

- a) **Bidders should submit their Technical Bid physically and online on the e-tender portal. Commercial Bid should be submitted only online on e-tender portal as per tender schedule.** Bidders are also requested to submit their Tender form fee and EMD vide Demand Draft in two separately sealed envelopes superscribed as **“Tender No: ADM: STR: 3166: MOF-13: Spectrometer:2023-24”** and **“Tender title - To supply, install and commissioning of Spark Optical Emission Spectrometer (OES) Analyser”** and each one appropriately identified as **“Tender Form Fee”, “EMD”** as applicable.
- b) These two sealed envelopes along with the Technical documents are to be put in one larger envelope and sealed. This envelope is to be marked as **Title: TECHNICAL BID FOR to Supply, Install and Commissioning of Spark Optical Emission Spectrometer (OES) Analyser, Tender form fee, and EMD for Tender No. ADM: STR: 3166: MOF-13: Spectrometer:2023-24**
- c) The Tender document shall be addressed to **“The Director, Central Institute of Road Transport, Pune”** and submitted to the Head-ASD, Administration Division, CIRT by post or courier on or before due date and time.
- d) The bids of applicants who physically submit their Commercial bid along with the physical technical bid shall be rejected.
- e) CIRT, Pune may, at its discretion, may extend the deadline for the submission of bids by amending the Tender Documents, in which case all rights and obligations of CIRT, Pune and Bidders previously subject to the deadline shall thereafter be

subject to the deadline as extended. The prospective Bidders are advised to remain in touch with CIRT website for any update in respect of their tender.

- f) All pages of original bid and all copies of the bid shall be signed by a person duly authorized to sign on behalf of the Bidder. The written confirmation of authorization (in form of letter on the Bidder's letter head) to sign on behalf of the Bidder confirming the signature as a person duly authorized to sign should be attached with the technical bid of the tender.

**Opening of Tender:** Only Technical Bids will be opened on the stipulated opening date/time in presence of tenderers or their representatives whosoever may like to be present. Commercial bids of those who are technically qualified after scrutiny of technical suitability/acceptance of the technical bid will be opened at a later date. The communication in this regard will be sent to the technically qualified bidders by CIRT. The L1 bidder shall be selected on the basis of final cost of equipment, accessories, including all taxes excluding AMC charges

**Rejection of tender due to late submission:** Late / delayed and incomplete tender will be rejected. CIRT shall not be responsible for any delays in transit or otherwise due to postal and/or any other reason.

**5. Pre Bid Meeting:** Tenderers are requested to send their queries, if any, on tender documents to CIRT by post or by email at id: [stores@cirtindia.com](mailto:stores@cirtindia.com). The time schedule for receipt of queries and date and time of pre-bidding will be as instructed at **Tender Document submission – a brief, page no. 3**. If a bidder does not participate or submit any query, then no subsequent representations from them regarding the Technical specifications and term and conditions shall be entertained. CIRT, if required, shall issue Addendum / Corrigendum to Tender documents which, if issued, will be considered as part of Tender documents. Bidders will have to take cognizance of these Addendum / Corrigendum issued and submit Addendum / Corrigendum duly signed by Authorised Signatory of Bidder and stamped with Company Seal along with original Tender document. In case Bidder fails to do so, his tender will be outrightly rejected. If required, Bidders will be requested to give a technical presentation to CIRT after the Technical Bid opening.

#### **6. CIRT's Right to Accept Any Bid and to Reject Any or All Bids:**

1. The Director, C.I.R.T. reserves the right to reject any or all the tenders or partially accept or reject any or all the tenders without assigning any reasons.
2. The Director, CIRT reserves the right to reject any or all tenders in case the tenderers have put in their own terms & conditions.

3. The Director, CIRT reserves the right to accept or reject any bid, and to cancel the bidding process and reject all bids at any time prior to placing purchase order/ contract award, without thereby incurring any liability to Bidders.
4. In case of any dispute, on any account related to the said tender & or any activity related thereto, the Director, CIRT's decision will be final and binding on the tenderers.
5. In case of cancellation of tender, EMD submitted by tenderers shall be returned to the Bidders.

## **Chapter 2 Conditions of the Tender**

### **1. Pre dispatch Inspection**

Pre-Dispatch Inspection of the equipment shall be carried out by CIRT personnel and the expenditure towards the same shall be borne by the OEM.

### **2. Delivery**

(A) Equipment/ Test Rigs shall be supplied to CIRT within a period of **120 days** from the date of acceptance of P. O. The test equipment and its allied systems, sub-systems, computers, software's, other accessories as applicable shall be delivered to **CIRT on DOOR DELIVERY** basis at F.O.B. prices, without any additional cost to CIRT. All Incidental Charges shall be borne by successful bidder.

**For Foreign Vendor** – The rates shall be quoted for door delivery basis at CIRT, Pune with transit Insurance covering all type of risks during transit from vendor's works to final Destination i.e. CIRT premises at Pune-411026 (India) **Custom duty shall be borne by CIRT.**

The Bidder shall provide suitable packing of the machine/ equipment, as is required to prevent their damage without limitation, rough handling during transit. In case the consignment is received with damaged packaging, the CIRT, Pune would not accept the delivery.

The machine shall be secured and protected from mechanical damage, moisture etc., suitable for both storage and transit according to the nature of the material and mode of transport. The Bidder shall be responsible for any loss/ damage during transportation to the designated location.

(B) **Penalty for delayed delivery:** A penalty @ **1.0 %** of the total cost of the test equipment will be charged to the OEM/successful bidder **per week or part thereof** of delayed delivery subject to maximum Thirty (30) days after expiry of scheduled delivery date. After that the Purchase Order shall be cancelled and EMD will be forfeited. Bank guarantee obtained for advance payment made to bidder will be encashed. Bidder will be debarred from participation in any future tenders.

**3. Installation & Commissioning** of the equipment at CIRT site shall be carried out by the successful bidder on FREE OF COST basis, within a maximum period of 30 days from the date of arrival of the consignment at CIRT. Beyond 30 days, **penalty for delayed installation and commissioning @ 1%** of the total cost of the equipment will be charged to the OEM/successful bidder **per week or part thereof** subject to a maximum 10% of cost of the equipment and subject to maximum period of 45 days, failing which EMD will be forfeited.

(A) Successful bidder shall be responsible for the safe installation/commissioning of the equipment. Calibration certificates issued by OEMs who are the manufacturer of OES, traceable to national / international standard with necessary documentation shall be provided for the test equipment.

(B) The Bidder shall not arrange part shipments and/or trans-shipments without the permission of CIRT, Pune. The insurance cover including insuring the goods against the loss or damage incidental to manufacture or acquisition, transportation, storage and delivery/installation & commissioning shall be obtained by the Bidder in his own name and not in the name of CIRT, Pune.

**4. Performance Bank Guarantee valid for 3½ years** to ensure the fulfillment of warranty obligation shall be provided for 10 % Value of the total cost of equipment (10 % CIF Cost in the case of foreign vendors) (A specimen format of Bank Guarantee will be provided along with the Purchase Order). We shall accept a Bank Guarantee of a foreign bank having a branch in India. The Bank Guarantee to be in Indian Rupees only. In case of non-performance and violation of terms and conditions by the supplier the performance bank guarantee will be revoked.

**Warranty** : The offered equipment/ item/material/spares/ computers/software/ utilities shall strictly conform to the specifications & must be guaranteed for satisfactory performance & against manufacturing and other defects at least for a minimum period of 3 years (Comprehensive) including preventive and breakdown maintenance from the date of commissioning of test equipment/ item /material / spares /computers/software at CIRT. During the warranty period the successful bidder shall carry out the maintenance of the equipment free of cost.

- (a) Free replacement of defective spares/rectification of any defective components of the item during warranty period should be arranged **ON FREE OF COST on DOOR DELIVERY BASIS** and installation thereof. All expenditure for door delivery such as freight, insurance, taxes, any other duties, customs duty & clearance charges (in the cases of imported items) towards replacement shall be borne by the successful bidder.
- (b) Service call charges including all incidental charges, will not be applicable for the services provided by bidder during the warranty period (three years).
- (c) Bidder shall have to make arrangement for the collection of defective spares. CIRT will not bear any expenditure for returning the defective spares. Defective spares or parts of equipment rejected on inspection or during warranty period shall be replaced within a week.
- (d) CIRT will not be responsible for the safe custody of such stores beyond 60 days for any loss/damage to the rejected stores. CIRT also reserves the right to dispose such defective spares.
- (e) Penalty for delayed delivery of spares during warranty period will be @ 1% of the total cost of the spare parts to be replaced which will be charged to the successful bidder per week or part thereof subject to a maximum 10% of cost of the spares to be replaced.
- (f) If the spare parts are not replaced within 45 days of communication from CIRT, CIRT reserves the right to impose penalty appropriately.
- (g) During the warranty period, service personnel shall be deputed at site by the Bidder within three working days from the date of request from CIRT, Pune to rectify and fixing the defects of machine at the location where machine(s) are supplied. The cost of deputation of service personnel and any other associated expenditure shall be borne by the Bidder.



- (h) The Bidder to supply three (03) sets of the following manuals in hard copy and soft copy along with supplied machine(s):
- i. Installation Manual
  - ii. Operation Manual
  - iii. Maintenance and Trouble Shooting Manual

Note: All manuals shall be latest and duly signed/stamped by the bidder.

- 5. Extension of Warranty:** During warranty period the service personnel shall attend the service calls and replace / repair the equipment. If the equipment is not put into operation within a week in case of minor breakdown and a month in case of major break down, then warranty period will be extended by number of days equivalent to five times the delayed days beyond the specified period of 03 years.

**6. Customer Service Support (During and after Warranty period)**

Customer Service Support shall be provided for minimum period of 10 years including minimum warranty period of 3 years from date of installation and commissioning of equipment. In case bidder is test equipment manufacturer, the undertaking from equipment manufacturer shall be submitted as per Annexure H and in case, bid is submitted by authorized distributor of test equipment manufacturer then test equipment manufacturer shall submit the undertaking as per Annexure I.

- a) Annual Maintenance Contract:** It is the mutual decision of CIRT and successful bidder to enter into Annual Maintenance Contract (AMC) for after-sales service after warranty period. Bidders should give the Annual Maintenance Contract charges for 7 years after warranty period of 03 years.

Manufacturer shall quote the comprehensive annual maintenance cost separately, after lapse of warranty period of Three (3) year for next Seven (7) years, year-wise considering the utilization of machine in 10 years as a normal use.

Annual Maintenance Contract can be terminated at any time and it will be at the discretion of CIRT, Pune.

The quoted AMC charges shall not be considered for financial evaluation for selection of L1 bidder. Selection of L1 bidder will be on the basis of final cost of equipment and accessories quoted including taxes.

- b) Service Call attendance** - The successful bidder's service personnel shall attend the service calls and replace/ repair the equipment within 48 hours, If no spares are required to be imported. If import of spares is required, the vendors shall supply such spares, if required and asked for by CIRT, within the delivery period quoted there on.
- c) Spares Back up** – Tenderer should give guarantee for the supply of spares for the next 7 years after warranty period. All the spares used in the equipment shall be easily available and replaceable. Manufacturer / Bidder shall provide the list of spares.
- d) Cost of Spares replaced** – In Case CIRT do not enter into a comprehensive AMC contract the cost of spares replaced, after minimum warranty period of three years, shall be billed to CIRT as per the price list provided along with the dispatch documents of the equipment at time of acceptance of Purchase Order. Reduction in prices of items, if any, shall be immediately communicated to CIRT and same shall be made applicable to the spares replaced after minimum period of three years of warranty.
- e)** Penalty for delayed delivery for such replacement items shall be as stated at 2 (B) above.
- f) Customer Service Support Bank Guarantee after Warranty Period** -Customer Service Support Bank Guarantee for 3% of the CIF Value of the test equipment shall be provided by the Bidder two months before the expiry of Performance Bank Guarantee issued towards initial warranty period of Three (3) years to ensure the fulfillment of Customer Service Support for a further period of Seven (7) years. However, if the bank guarantee is for shorter period than the period of 7 years, the same shall be renewed further for every such period, 2 months before expiry of existing bank guarantee to roll it over for up to a period of seven years.  
(A specimen format of the Bank guarantee will be provided along with the Purchase Order.)

## **7. Training of CIRT personnel and officials**

OEM/Successful Bidder shall provide free training to CIRT Personnel after successful installation and commissioning.

Training to the CIRT officials shall be given for five **(5) working days** wherein the training shall be about operations, instructions, maintenance as well as trouble shooting & all other areas which are necessary for smooth functioning of Machine. Training shall be provided to at least two persons designated by CIRT, Pune. Training for the CIRT personnel shall be free of cost.

## **8. Recovery of damages**

- a) The Director, C.I.R.T. reserves the right to recover the amount of loss incurred to C.I.R.T., if any due to non-execution of order / non-supply of test equipment, damaged / short supply/ wrong supply/ delayed delivery in any part or full of the equipment, from the dues of the tenderer.

### **b) Recovery of Estimated damages or Shortfall:**

- (i) Supplier should abide by and be responsible for the test equipment supplied to CIRT, and if test equipment/part/computer/software of the test equipment is not found or damaged or deficient, without prejudice or shortfall as per the technical specifications or shortfall with accessories may lead to rejection of test equipment by CIRT.
- (ii) The supplier shall abide for any recovery against shortfall in the supplies.

## **9. Authorized agency for Technical Services:**

If bidder has an authorized agency / distributor for technical services, then same shall be declared while furnishing the Technical Bid. Such agency shall be associated with Bidder for minimum 7 years and have expertise of installation, maintenance & repair in most effective manner. However, overall responsibility of providing technical service lies with the bidder/supplier/OEM. Authorization. certificate from the manufacturer for the dealership / distributorship / stockist status should be attached with the tender.

**10. Pending Litigation cases** if any, with CIRT in the court of law against any of the prospective bidder, will render particular bidder/Joint Ventures of the particular bidder to be disqualified for participation in Tender.

**11. Arbitration, Legal formalities Arbitration:**

Any dispute arising during the contract period of three years and the procedure pertaining to administration or financial or technical issues shall be referred to the Technical Advisory Committee headed by the Director, CIRT to resolve the issues. The decision of Director, CIRT will be final in this regard.

In case of dispute between both the parties, same will be referred to the Sole Arbitrator for the Arbitration Proceeding as per Arbitration and Conciliation Act, 1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015. The Arbitrator will be appointed by CIRT or with consent of both parties. The venue of the arbitration proceeding will be at Pune and the cost of arbitration proceeding will be borne by each of the party as to 50%. The language of the Arbitration Proceeding will be in English. The District Court at Pune will have the administrative jurisdiction for the Civil and Arbitration Proceeding.

In case of non-settlement of disputes through arbitration, the appropriate Indian Laws will prevail.

**Force Majeure Clause:**

The services of both parties are subject to FORCE MAJEURE condition. While every effort will be made to carry out the obligation of the contract, the successful bidder / CIRT will not be liable for non-performance either in whole or in part of the contract for any delay in performance thereof in consequences of the Force Majeure Event such as Acts of GOD, Floods, War, Pandemic situation ( if declared by Central / State Government ) or any other cause beyond control. The decision of Director CIRT will be final in this regard.

## Chapter 3 Schedule of Requirements

### 1. Pricing:

#### a) For Bidders in India

**Price quoted** shall be on the basis of “**Door Delivery**” at **CIRT Bhosari, Pune-411026** F.O.R. destination. All incidental charges such as packing, forwarding, freight and transit insurance charges shall be borne by successful bidder.

#### b) For foreign bidders

Price quoted shall be on basis of “Door delivery” at CIRT Bhosari Pune - 411026 F.O.R. destination with transit insurance coverage up to destination (CIRT Bhosari, PUNE 411026, premises)

#### c) Price & Payment

- i) Price shall be quoted in INR only. If there is a discrepancy between words and figures, the amount in words shall prevail.
- ii) If the bidder is from overseas countries, then Bidders are requested to quote in **Indian Rupees only**.

**Note : Price should be quoted only in “Commercial Bid”**

### 2. Schedule of Payment:

- a) 10% advance along with Purchase Order on submission of Bank Guarantee for equivalent amount, **of validity of 12 months**.
- b) 20 % against delivery and post preliminary inspection at CIRT, Pune.
- c) 70 % after successful installation, commissioning, training and satisfactory inspection report of the equipment and after receipt of the Performance Bank Guarantee valid for 1½ years to ensure the fulfilment of warranty obligation. (for 10 % Value of the total cost of equipment (10% CIF Cost in the case of foreign vendors).

### 3. Taxes & Duties:

- a. The rates of G.S.T. or any other taxes, if chargeable, shall be indicated separately or else it will be presumed that the quoted price is inclusive of taxes.
- b. Customs Duty: CIRT will avail Custom Duty Exemption, as applicable, under Government Notification No. 51/96-Customs dated 23.07.1996, No. 24/2007-Customs dated 01.03.2007; No.43/2017-Customs dated 30.6.2017 being Scientific and Industrial Research Organizations (SIRO) recognized R&D Institution. However, the tenderer should quote the application rate of Custom Duty, if any, in the appropriate column for information.

## Chapter 4 Specification & Allied technical details

### Specification:

**1) Technical Specification:** Spark Optical Emission Spectrometer (OES) Analyzer shall be in compliance to the Technical Specification as enclosed at **Annexure- F**

**2)** Complete specification of the Testing Equipment's offered shall clearly be specified. Basic equipment shall be the equipment capable to perform required basic functions asked for. Brand name, Trade name, Model No., part No. Item description etc. shall be described clearly in the bid. Printed technical literature / catalogue stating all the technical parameters must be enclosed along with the bid, failing which the tender will be rejected. Rates shall be quoted separately for the basic equipment, add on/optional equipment's. Offers having confused technical specifications, terms and conditions and prices will be liable to be rejected.

**3)** Pre-requisite Infrastructure Requirements for Installation & Commissioning of the machine - Bidder shall submit the details of Pre-requisite /Civil/Electrical/Any other Infrastructure requirements for installation & commissioning of the Testing Equipment Spark Optical Emission Spectrometer (OES) Analyzer as per the enclosed **Annexure – E.**

**CENTRAL INSTITUTE OF ROAD TRANSPORT**

**Post Box No.1897, Bhosari, PUNE – 411 026 (INDIA)**

**Tel.: (020) 67345300 (30 Channels)**

**Fax : (020) 67345403**

**Website : [www.cirtindia.com](http://www.cirtindia.com)**

**TENDER DOCUMENTS**

**Part B – Commercial Bid**

**TENDER NO :** ADM: STR: 3166: MOF-13: Spectrometer:2023-24

**ITEM** Spark Optical Emission Spectrometer (OES) Analyser

**EMD** As per Tender Document.

1. Commercial bid is to be submitted online only.
2. Hardcopy not to be submitted.
3. Please enter the values in yellow cell only.



**Central Institute of Road Transport**



**NIT No.ADM:STR:3166:MOF-13:Spectrometer:2023-24**

**Name of Work: Supply, installation and commissioning of Spark Optical Emission Spectrometer (OES) Analyser**

**SCHEDULE OF ITEMS**

Name of the Bidder		
Price Schedule Summary		
Sr. No.	Description	Total Amt. with Tax in INR.
1.0	Price Schedule -1 including Taxes & Duties	0
2.0	Price Schedule -2 including Taxes & Duties	0
3.0	Total (Price Schedule 1 + Price Schedule 2)	0
4.0		



## Price Schedules – 1



# Central Institute of Road Transport



**NIT No. ADM: STR: 3166: MOF-13: Spectrometer:2023-24**

**Name of Work: Supply, installation and commissioning of Spark Optical Emission Spectrometer (OES) Analyser**

### SCHEDULE OF ITEMS

**Name of the Bidder**



### Price Schedule - 1

Sr. No.	Test Equipment	Qty.	Rate per Unit in INR	Amt. in INR Excl. of Taxes	Add Tax %	Tax Amount	Total Amt. with Tax
1.0	Supply, installation and commissioning of Spark Optical Emission Spectrometer (OES) Analyser as specified in the Technical Specification (Annexure F) For Iron (Fe) base and its alloys, Aluminium (Al) Base and its alloys, Copper (Cu) Base and its alloys Programme with all modules with Following inclusions - i) Latest PC and Printer as specified in Technical Specification ii) Operational Consumable Spares for 3 years	1					
1.1	Nickel (Ni) base and its alloys programme with all modules	1					
2.0	UPS 2 KVA capacity with 30 minutes backup	1					
3.0	Argon Gas Cylinder with its regulator-1 No	1					
4.0	Custom Duties, if applicable						
5.0	Other taxes if any						
6.0	<b>Total of Price Schedule -1 including above Taxes</b>						<b>0</b>
7.0	Total in Words						

#### Instructions:

1	Please enter the values in yellow cell only.
2	Please fill the Price Schedule 1 and Price Schedule 2. Filling up of Price Schedule is mandatory else Commercial Bid will be disqualified.
3	Commercial bid is to be submitted online only.
4	Hardcopy not to be submitted.
5	The total price should be F.O.R. destination.

## Price Schedules – 2

		<h1>Central Institute of Road Transport</h1>			
<b>NIT No. ADM: STR: 3166: MOF-13: Spectrometer:2023-24</b>					
<b>Name of Work:</b> Supply, installation and commissioning of Spark Optical Emission Spectrometer (OES) Analyser - CRMs for Spark Optical Emission Spectrometer (OES) Analyser					
<b>SCHEDULE OF ITEMS</b>					
<b>Name of the Bidder</b>					
<b>Price Schedule - 2</b>					
Sr. No.	Test Equipment	Price in INR, Excl. of Taxes	Add Tax %	Tax Amount	Total Amt. with Tax
1.0	CRMs (Blocks / Discs) for Metal Spark OES equipment				
1.1	Fe base alloy -Low alloy Steel- 12X 43400 A (MBH) (~38mm Ø X ~20mm) or Equivalent- 1 No			0	0
1.2	Fe base alloy -Low alloy Steel- 12X 52986 A (MBH) (~38mm Ø X ~20mm) or Equivalent – 1No			0	0
1.3	Al base alloy - Al/Si/ Cu - 55X G900 J3 F (MBH) (~50mm Ø X ~20mm) or Equivalent - 1 No			0	0
1.4	Al base alloy - Al/Si/ Cu - 55X G28J1 Z (MBH) (~50mm Ø X ~17mm) or Equivalent – 1No			0	0
1.5	Ni base alloy - BCS/SS-CRM 350 – Nickel Alloy IN 713 Disc (50mm Ø X 13mm) (BAS) or Equivalent - 1 No			0	0
1.6	Ni base alloy - BCS/SS-CRM 351/1 – Nickel Alloy IN 718 Disc (41mm Ø X 13mm) (BAS) or Equivalent - 1 No			0	0
2.0	<b>Taxes ,Duties and other charges if any</b>				<b>0</b>
3.0	<b>Total of Price Schedule -2</b>			0	0
7.0	Total in Words				
<b>Instructions:</b>					
1	Please enter the values in yellow cell only.				
2	Please fill the Price Scheduled 1 and Price Scheduled 2 is mandatory else Commercial Bid will be disqualified.				
3	Commercial bid is to be submitted online only.				
4	Hardcopy not to be submitted.				
5	A copy of screenshot of commercial bid is attached for information only.				
6	Kindly quote the exchange rate of that Date .				



# Central Institute of Road Transport



**NIT No. ADM: STR: 3166: MOF-13: Spectrometer:2023-24**

**Name of Work: Supply, installation and commissioning of Spark Optical Emission Spectrometer (OES) Analyser**

## SCHEDULE OF ITEMS

**Name of the Bidder**

### Price Schedule - 3

Sr. No.	Test Facility For	Amt. in INR Excl. of Taxes	Add Tax %	Tax Amount	Total Amt. with Tax
1	<b>Annual Maintenance Contract (AMC)</b>				
	(Comprehensive Annual Maintenance Cost year-wise after lapse of warrantee period of 3 years as per the terms & condition of tender)				
1.1	AMC (Comprehensive) in 4 <sup>th</sup> year			0	0
1.2	AMC (Comprehensive) in 5 <sup>th</sup> year			0	0
1.3	AMC (Comprehensive) in 6 <sup>th</sup> year			0	0
1.4	AMC (Comprehensive) in 7 <sup>th</sup> year			0	0
1.5	AMC (Comprehensive) in 8 <sup>th</sup> year			0	0
1.6	AMC (Comprehensive) in 9 <sup>th</sup> year			0	0
1.7	AMC (Comprehensive) in 10 <sup>th</sup> year			0	0
2.0	Other Charges				

### Instructions:

1	Please fill the Price Schedule 1 and Price Schedule 2. Filling up of Price Schedule is mandatory else Commercial Bid will be disqualified.
2	Commercial bid is to be submitted online only.
3	Hardcopy not to be submitted.
4	Please enter the values in yellow cell only.

### Note:

- 1) AMC Price: Price shall be quoted in Indian Rupees only.
- 2) If the bidder is from overseas countries, then Bidders are requested to quote in Indian Rupees.
- 3) At the time of submission of Financial Bid, every bidder has to quote AMC rates in given format for 5 years which will be effected after 3 years of warranty period, if CIRT enters into AMC Agreement with the bidder.

## Annexure A

### Prebid Queries format

**Name of Organization:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Tender Title** : for Spark Optical Emission Spectrometer (OES) Analyser

**Tender No.:** ADM: STR: 3166: MOF-13: Spectrometer:2023-24

SI. No.	Page no.	Clause no.	Clause	Suggestion / Query

- Email to be sent to [stores@cirtindia.com](mailto:stores@cirtindia.com) in pdf format.

## **Annexure-B**

### **FINANCIAL DETAILS OF THE ORIGINAL TEST EQUIPMENT MANUFACTURER (OEM) / Authorized Distributors**

(On the letter head of Statutory Auditor of the Original Test Equipment manufacturer (OEM))/  
Authorized Distributors

#### **AVERAGE ANNUAL TURNOVER**

Annual Turnover in INR			Average Annual Turnover (FY 2017-18, FY 2018-19 and FY 2019-20) in INR
Year 1 (FY 2017-18)	Year 2 (FY 2018-19)	Year 3 (FY 2019-20)	

Date:

Name of the Bidder:

Name of the audit firm:

Seal of the audit firm

(signature, name and designation of the authorized signatory)

Registration Number: Address of the audit firm: UDIN No.:

Seal of the Bidder

(signature, name and designation of the authorized signatory)

## Annexure C

### BIDDER INFORMATION SHEET

1	<b>Name &amp; Full Address of the firm</b> (If there is a separate address for manufacturing unit/sales office/ godown, please mention specifically)	
2	Telephone/Telex/Fax/E-Mail/mobile number	
3	Name of contact person[s]/Representative Telephone/ Fax/ e-mail/mobile number	
4	Whether your firm is registered under Shop Act/ SSI Unit/ Other categories [specify and attach relevant documents]	
5	<b>Product/Supply Range</b> [Please specify brand/make dealt by your firm] Technical literature/brochures/leaflets are to be attached for technical product. Pl. attach separate sheet, if space provided is insufficient.	
7	<b>Reputed clients' list of your firm:</b> [preferably in and around Pune & Maharashtra, if you are a local vendor]	[Pl. enclose separate sheet]
8	<b>Number of Equipment Sold in last Seven years</b>	
9	<b>Purchase order ; Year of supply ; delivery challan; Invoice (Please provide copies of the documents for the sold equipment)</b>	
10	<b>Bank details</b>	
	Name of the Beneficiary & Address	
	Name of Bank & Address	
	Account No.	
	Branch Code	
	IFSC Code	
	MICR Code	
	SWIFT Code / Routing No.	
11	<b>GST IN No.</b>	
12	<b>HSN Code</b>	
Seal          Date:		<div style="text-align: center;">(Signature of Authorised Person)</div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Name</div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Designation</div>

## **Annexure D**

### **ANTI-BLACKLISTING CERTIFICATE**

(To be Submitted on the letterhead of the Test equipment manufacturer and/ or Authorized distributor as the case may be)

I / We hereby certify and confirm that M/s. .... (Name of the Bidder) that the company/ any of the promoter/s / director/s are not blacklisted or barred by Government of India (GOI) / any other entity of GOI or any state government/ department / local government / agency in India or from abroad from participating in Project/s, either individually or as member of a Consortium as on the (Bid Due Date).

We further confirm that we are aware that our tender will be liable for rejection and EMD will be forfeited, in case any material misrepresentation is made or discovered with regard to the requirements of this tender at any stage of the Bidding Process or thereafter during the agreement period.

Yours faithfully,

(Signature, name and designation of the authorised signatory)  
For and on behalf of .....

**Pre-requisite Infrastructure Requirements for Installation & Commissioning for  
the Spark Optical Emission Spectrometer (OES) Analyser**

<b>S.N.</b>	<b>Description</b>	<b>Requirement</b>
<b>1.0</b>	<b>Civil Infrastructure -</b>	
1.1	Test equipment/ machine store area requirement	
1.2	Fire Protection facilities (devices) if any	
1.3	Any other specific requirement	
<b>2.0</b>	<b>Electrical Infrastructure -</b>	
2.1	Provision of Internet for test equipment/ machine	
2.2	Specific air conditioning	
<b>3.0</b>	<b>Safety requirements</b>	
<b>4.0</b>	<b>Miscellaneous</b> Provision of power, air, light, water, etc, as required during installation.	
<b>5.0</b>	<b>Any other specific requirements</b>	



**A) TECHNICAL SPECIFICATIONS FOR SPARK OPTICAL EMISSION SPECTROMETER (OES) ANALYZER**

**A. Scope :** Spark Optical Emission Spectrometer (OES) Analyzer shall be able to undertake chemical composition analysis of various elements of metal and its alloys i.e. Iron base metals and its alloys , Aluminum base metals and its alloys, Copper base metals and its alloys and Nickel base metals and its alloys.

Spark Optical Emission Spectrometer Analyzer shall be able to undertake chemical composition as per latest versions of standards namely **ASTM E 415** (Analysis of Carbon and low alloy steel), **ASTM E1086** (Analysis of Austenitic Stainless steel), **ASTM E 1251** ( Analysis of Aluminum and its alloys), **ASTM E 1999** (Analysis of Cast Iron ), **BS EN 15079** (Analysis of Copper and its alloys ) and **ASTM E 3047** (Analysis of Ni based alloys ).

**B. Spark Optical Emission Spectrometer Analyzer shall have following Features**

<b>Sr. No.</b>	<b>Details</b>
<b>1</b>	<p><b>Instrument description:</b></p> <p>Equipment shall be table top factory calibrated spark optical emission spectrometer for the measurement of Ferrous / Non-Ferrous metals and alloys (ferrous, aluminium, copper, nickel base alloys) with high precision and accuracy.</p> <p>The system shall have latest version of software for analysis and calibration for the defined multi-base alloys in solid form.</p> <p>Equipment shall have provision for addition of measurement of other base alloys in future such as Ti (Titanium) base and its alloys, Zn (Zinc) base and its alloys, Co (Cobalt) base and its alloys, Pb (Lead) base and its alloys etc.</p> <p>Equipment shall have following features:</p> <ul style="list-style-type: none"> <li>i) Multi optical system with multi high resolution CMOS (Complementary Metal – Oxide semiconductor) and / or CCD (Charge coupled Device) detectors with single board read out system.</li> <li>ii) Wavelength range: 130nm to 670nm</li> <li>iii) System shall be Stabilized against temperature fluctuations.</li> <li>iv) Open spark stands for high sample throughput and various kinds of sample geometries.</li> <li>v) Spark stand shall be self-cooled with minimum Argon consumption.</li> </ul>
<b>2</b>	<p>Spark Optical Emission Spectrometer (OES) Analyzer shall be capable of analysis of following material:</p> <p>Ferrous / Non-Ferrous Alloys as per enclosed <b>annexure-F1</b> i.e.</p> <ul style="list-style-type: none"> <li>i) Iron base and its alloys</li> <li>ii) Aluminium base and its alloys</li> <li>iii) Copper base and its alloys</li> <li>iv) Nickel base and its alloys</li> </ul> <p>Free selected analysis modules optimized to Fe base, Al base, Cu base, Ni base metals and its alloys shall be provided.</p>

3	<p><b>Optical System:</b></p> <p>Equipment shall have independent optics for the measurement of metallic, non-metallic and gaseous elements separately and shall have following features:</p> <p>i) Type of Detectors – CMOS and / or CCD with high resolution Clear Spectrum Technology, Multi Vision, Dual optics with 300mm and 400mm focal length as per details given below:</p> <ul style="list-style-type: none"> <li>For UV optics: Equipped with high resolution detectors Focal Length: minimum 300mm 3600 Grooves /mm grating constant minimum</li> <li>For Air optics – Equipped with high resolution detectors Focal Length: minimum 400mm 2400 Grooves /mm grating constant minimum</li> <li>Total No of detectors: 16 Nos minimum</li> </ul> <p>ii) Optical system shall be inert gas filled or flushed or vacuum based.</p> <p>iii) Wavelength range shall be from <b>130-670 nm</b> or better to provide reliable measurement of all the elements as per <b>annexure F1</b>.</p> <p>iv) Optical systems shall be stabilized against temperature fluctuations.</p> <p><b>v) Optical system shall be capable for upgrading future requirements as and when required.</b></p>
4	<p><b>Sample excitation system:</b></p> <p>Instrument shall have fully digital sample excitation system providing uniform discharges during measurement thus offering exceptional repeatability and stability of the measurements.</p>
5	<p><b>Recalibration / standardization system:</b></p> <p>Instrument shall have a user friendly and faster recalibration process providing highest uptime.</p> <p>Optical system shall be capable for upgrading future requirements as and when required.</p>
6	<p><b>Spark stand:</b></p> <p>Instrument shall have a open spark stand with minimal gas consumption allowing measurement of samples of various size, shape and geometry.</p>
7	<p><b>Small part analysis:</b></p> <p>Equipment shall have capacity to test small samples. Manufacturer shall have provided small sample adaptor for the measurement of irregular size and shape.</p>

8	<p><b>Application report:</b></p> <p>Manufacturer shall provide separate printed authorized document for each base, each program and each element confirming analytical performance of the instrument with respect to achievable precision values and the detection limits for each element at different concentration levels with 3 sigma's as given in Annexure F1 or better.</p>
9	<p><b>CRMs :</b></p> <p>CRMs shall be provided for following base metals and its alloys The cost for the same must include in quotation separately. (List of require CRMs is given below.)</p> <p><b>CRMs shall be traceable to National / International Standards as per ISO:17034. Certified Reference Materials shall be supplied from globally reputed and accredited suppliers i.e. BAS / Brammer / MBH only.</b></p> <p>Please provide following CRMs (Blocks / Discs) for Metal Spark OES equipment with original certificates in English language.</p> <p>a) Fe base alloy -Low alloy Steel- 12X 43400 A (MBH) (~38mm Ø X ~20mm) or equivalent – 1No</p> <p>b) Fe base alloy -Low alloy Steel- 12X 52986 A (MBH) (~38mm Ø X ~20mm) or equivalent – 1No</p> <p>c) Al base alloy - Al/Si/ Cu - 55X G900 J3 F (MBH) (~50mm Ø X ~20mm) or equivalent – 1No</p> <p>d)Al base alloy - Al/Si/ Cu - 55X G28J1 Z (MBH) (~50mm Ø X ~17mm) or equivalent – 1No</p> <p>e) Ni base alloy - BCS/SS-CRM 350 – Nickel Alloy IN 713 Disc (~50mm Ø X 13mm) (BAS) or equivalent – 1No</p> <p>f) Ni base alloy - BCS/SS-CRM 351/1 – Nickel Alloy IN 718 Disc (~41mm Ø X 13mm) (BAS) or equivalent – 1No</p>
10	<p><b>Spares and consumables:</b></p> <p>Manufacturer shall provide a sufficient spares and consumable for smooth and trouble free operation for a period of minimum 3 years.</p> <p>Spares &amp; Consumables support for <b>10 years</b> with warranty period shall be provided.</p>
11	<p><b>Calibration of equipment:</b></p> <p>Manufacturer shall provide calibration certificate of equipment complying with national or international standards.</p> <p><b>Manufacturer shall provide all required calibration standards with equipment.</b></p> <p>Also Manufacturer shall ensure repeatability and reproducibility for homogeneous samples on spark analyser with respect to CRMs.</p>
12	<p><b>Manuals &amp; Training</b></p> <p>Manufacturer shall provide Three copies (hard copy and soft copy both) of machine manuals, operating manuals and training materials in English Language.</p> <p>Manufacturer shall provide for <b>5 working days</b> training in operation and maintenance with technical mechanism with theoretical study at CIRT.</p>

13	<p><b>PC, Printer and UPS:</b></p> <p>Latest PC, Printer &amp; UPS, Software compatible with latest Windows 10 or better Platform shall be supplied as detailed below:</p> <p><b>PC Configuration:</b>  Intel Core i7 processor  Min. 8 GB RAM or better (shall have provision to expand)  Min. 1 TB Hard Disk Drive or better  DVDRW Drive  CD/DVD Recording Software  Keyboard and Optical Scrolling Mouse  High Speed USB ports  10/100 Mbit Ethernet NIC (2 Nos.) (Compulsory)  Original 64 Bit with updated Microsoft Windows 11 (Licensed version)  Color Monitor (TFT &gt;= Minimum 21”) (HD Resolution)</p> <p><b>Printer Specification:</b>  Laser Printer:  Memory:64MB min,  Processor: 400MHz,  Printer Speed: Up to 20 ppm,  Printer Technology: 1200dpi,  Number of Print Cartridge :1 (Black),  Standard connectivity: 1 Hi-Speed USB (Compatible with USB 2.0 Specification) Port,  Media Type: Plain Paper A4 Size,  Certifications: UL/FCC/CE &amp; Standard OEM warranty.</p> <p><b>UPS Specification:</b>  2 KVA with 30 min backup</p>
14	<p><b>Software Support:</b></p> <p>Instrument shall have a built-in diagnostic software features providing operational status of individual component of the instrument and assist in identifying a fault in the machine.</p> <p>Software shall have material equivalent grade Identification method.</p> <p>Software shall have different programmes for analysis Fe base and its alloy – ( low alloy steel, free cutting steel, cast iron, Cr-Cr/Ni steel, high speed steel</p> <p>Software shall have different programmes for analysis Al base and its alloy – (Al – Pure, Al-Si alloy )</p> <p>Software shall have different programmes for analysis Cu base and its alloy – ( Pure Copper, Cu/Zn, Cu/ Ni, Gun metal, Cu/10/Pb , Cu/Al )</p> <p>Software shall have different programmes for analysis Ni base and its alloy – ( Pure Ni, Monel, Ni/Mo/Cr/Co/W alloy, Ni/Fe/Cr alloy )</p> <p>Software - Shall provide latest version with free updates (if any) for at least 10 years with free of cost &amp; support.  Software shall be perpetual in nature without any interlocks from any external sources.  Manufacturer shall provide software code, exe, installer files and software manual.</p>
15	<p><b>Others:</b></p> <p>i) Equipment shall be plug and play type.</p> <p>ii) Equipment shall include all required accessories to make machine fully in Operation.</p> <p>iii) Manufacturer shall provide operational consumable spares for three years.</p>

iv)	Manufacturer shall provide Argon Gas Cylinder (having water capacity 47 Ltrs) with its regulator-1 No
v)	Equipment must meet the Environmental, Health and safety aspects. If hazardous material is used, then please provide MSDS (Material Safety Data Sheet) and procedure for disposal.
vi)	The Bidder must give date of manufacturing of supplied Equipment.

**Annexure- F1**

	<b>Fe base metals and its alloys</b>	
<b>Element</b>	<b>Min.</b>	<b>Max.</b>
<b>C</b>	0.0015	4.50
<b>Si</b>	0.0005	19.00
<b>Mn</b>	0.0005	29.00
<b>P</b>	0.0005	2.20
<b>S</b>	0.0005	0.43
<b>Cr</b>	0.0010	33.0
<b>Mo</b>	0.0005	9.50
<b>Ni</b>	0.0010	46.0
<b>Al</b>	0.0005	8.70
<b>Co</b>	0.0010	18.00
<b>Cu</b>	0.0005	8.00
<b>Nb</b>	0.0010	2.8
<b>Ti</b>	0.0005	2.5
<b>V</b>	0.0005	10.00
<b>W</b>	0.0050	19.00
<b>Pb</b>	0.0010	0.25
<b>Sn</b>	0.0005	0.22
<b>Mg</b>	0.0010	0.20
<b>As</b>	0.0010	0.10
<b>Zr</b>	0.0010	0.220
<b>Bi</b>	0.0010	0.067
<b>Ca</b>	0.0001	0.0130
<b>Ce</b>	0.0010	0.170
<b>Sb</b>	0.0010	0.220
<b>Se</b>	0.0020	0.310
<b>Te</b>	0.0010	0.08
<b>Ta</b>	0.0100	0.55
<b>B</b>	0.0002	2.00
<b>Zn</b>	0.0010	0.03
<b>La</b>	0.0005	0.045
<b>N</b>	0.0010	1.10
<b>Fe</b>	Reference	

All Above values are in percentage (%)

	<b>Al base metals and its alloys</b>	
<b>Element</b>	<b>Min.</b>	<b>Max.</b>
<b>Si</b>	0.0005	30.0
<b>Fe</b>	0.0005	10.00
<b>Cu</b>	0.0001	14.0
<b>Mn</b>	0.0002	20.0
<b>Mg</b>	0.0005	11.00
<b>Cr</b>	0.0002	0.40
<b>Ni</b>	0.0003	4.00
<b>Zn</b>	0.0008	20.00
<b>Ti</b>	0.0003	5.00
<b>Ag</b>	0.0001	1.00
<b>As</b>	0.0010	0.011
<b>B</b>	0.0001	1.40
<b>Ba</b>	0.0001	0.006
<b>Be</b>	0.00005	0.0210
<b>Bi</b>	0.0005	0.71
<b>Ca</b>	0.0001	0.040
<b>Cd</b>	0.0001	0.330
<b>Ce</b>	0.0010	0.046
<b>Co</b>	0.0004	1.50
<b>Ga</b>	0.0002	0.10
<b>Hg</b>	0.0003	0.010
<b>In</b>	0.0003	0.100
<b>La</b>	0.0003	10.00
<b>Li</b>	0.0001	8.00
<b>Mo</b>	0.0005	0.120
<b>Na</b>	0.0001	0.021
<b>P</b>	0.0008	0.0170
<b>Pb</b>	0.0005	1.50
<b>Sb</b>	0.0015	0.55
<b>Sn</b>	0.0003	21.00
<b>Sr</b>	0.00005	9.00
<b>V</b>	0.0005	0.110
<b>Zr</b>	0.0002	0.85
<b>Sc</b>	0.0002	0.40
<b>Al</b>	Reference	

**All Above values are in percentage (%)**

Element	Cu base metals and its alloys	
	Min	Max
<b>Zn</b>	0.0015	50.0
<b>Pb</b>	0.0010	22.00
<b>Sn</b>	0.0005	14.80
<b>P</b>	0.0005	1.10
<b>Mn</b>	0.0002	22.00
<b>Fe</b>	0.0002	6.60
<b>Ni</b>	0.0005	34.0
<b>Si</b>	0.0005	7.15
<b>Mg</b>	0.0001	0.18
<b>Cr</b>	0.0002	2.40
<b>Te</b>	0.0003	0.12
<b>As</b>	0.0004	0.78
<b>Sb</b>	0.0035	1.70
<b>Cd</b>	0.0001	0.11
<b>Bi</b>	0.0005	5.80
<b>Ag</b>	0.0003	2.10
<b>Co</b>	0.0015	2.40
<b>Al</b>	0.0005	12.50
<b>S</b>	0.0002	0.21
<b>Be</b>	0.0001	2.8
<b>Zr</b>	0.0002	0.380
<b>Au</b>	0.0005	0.055
<b>B</b>	0.0001	0.035
<b>C</b>	0.0005	0.060
<b>Ti</b>	0.0002	0.78
<b>O</b>	0.005	0.30
<b>Se</b>	0.0008	1.40
<b>Nb</b>	0.0010	1.30
<b>Cu</b>	Reference	

**All Above values are in percentage (%)**

<b>Ni base metals and its alloys</b>		
<b>Element</b>	<b>Min.</b>	<b>Max.</b>
<b>C</b>	0.001	1.1
<b>Si</b>	0.001	5
<b>Mn</b>	0.0005	3.3
<b>P</b>	0.001	1
<b>S</b>	0.001	0.30
<b>Cr</b>	0.001	35
<b>Fe</b>	0.001	54
<b>Mo</b>	0.0015	34
<b>V</b>	0.0005	1.1
<b>Cu</b>	0.0005	41
<b>W</b>	0.005	11
<b>Co</b>	0.003	21
<b>Nb</b>	0.003	8
<b>Al</b>	0.001	7
<b>Ti</b>	0.001	6.2
<b>Zr</b>	0.001	0.3
<b>Sn</b>	0.001	12
<b>B</b>	0.0001	0.03
<b>Mg</b>	0.0005	0.13
<b>Pb</b>	0.001	0.07
<b>Ta</b>	0.005	5.0
<b>N</b>	0.001	0.30
<b>Hf</b>	0.01	1.5
<b>Re</b>	0.1	6.0
<b>Ni</b>	Reference	

**All Above values are in percentage (%)**



### Technical Compliance Sheet

The technical compliance Sheet must be completed and submitted with supported documentary evidences. Please ensure that all these points are covered in your offer. These will ensure that your offer is properly evaluated. Please mark "Yes" Or "NO" and specify page no. of your bid document where details or compliance has been confirmed. All technical parameters should be reflected in original OEM Brochure.

Sr. No.	Particulars	Complied / Not Complied (Yes/ No)	If deviation, please give proper justification that deviation suggested is equivalent or better	Page no. in Bid/ Reference of document in bid/ Reference No. supported documentary evidence.
1	Spark Optical Emission Spectrometer Analyzer shall be able to undertake chemical composition as per latest versions of standards namely ASTM E 415 (Analysis of Carbon and low alloy steel) , ASTM E1086 (Analysis of Austenitic Stainless steel ) , ASTM E 1251 ( Analysis of Aluminum and its alloys), ASTM E 1999 (Analysis of Cast Iron ) , BS EN 15079 (Analysis of Copper and its alloys ) and ASTM E 3047 (Analysis of Ni based alloys ) shall comply with this equipment.			
2	<b>Material to be Analysed:</b> Ferrous / Non-Ferrous Alloys (ferrous, aluminium, copper and nickel base alloys)			
2.1	Iron (Fe) base metals and its alloys – Minimum and maximum value of detection of said programs as per given in Annexure F1			
2.2	Aluminium (Al) base metals and its alloys – Minimum and maximum value of detection of said programs as per given in Annexure F1			
2.3	Copper (Cu) base metals and its alloys – Minimum and maximum value of detection of said programs as per given in Annexure F1			
2.4	Nickel (Ni) base metals and its alloys – Minimum and maximum value of detection of said programs as per given in Annexure F1			
3	Instrument shall have provision for addition of measurement of other base alloys in future.			
4	Wavelength range: 130nm to 670nm or better			
5	<b>Spark Stand</b> :Open spark stands for high sample throughout and various kinds of sample geometries.			
6	Spark stand self-cooled with minimum Argon consumption. (Provide Argon Consumption details)			
6.1	Manufacturer shall provide Argon Gas Cylinder (having water capacity 47 Ltrs) with its regulator-1 No			

7	<p><b>Optical System :</b> Instrument shall have independent optics for the measurement of metallic, non-metallic and gaseous elements separately.</p> <p>Type of Detectors – CMOS and / or CCD with high resolution</p> <p>Clear Spectrum Technology, Multi Vision, Dual optics with 300mm and 400mm focal length</p>			
8	<p>For UV optics:</p> <p>Equipped with high resolution detectors</p> <p>Focal Length: minimum 300mm</p> <p>3600 Grooves /mm grating constant minimum</p>			
9	<p>For Air optics :</p> <p>Equipped with high resolution detectors</p> <p>Focal Length: minimum 400mm</p> <p>2400 Grooves /mm grating constant minimum</p>			
10	Total No of detectors : 16 Nos minimum			
11	Optical systems shall be stabilized against temperature fluctuations.			
12	<p><b>Sample excitation system:</b></p> <p>Instrument shall have fully digital sample excitation system providing uniform discharges during measurement thus offering exceptional repeatability and stability of the measurements.</p>			
13	<p><b>Recalibration / standardization system:</b></p> <p>Instrument shall have a user friendly and faster recalibration process providing highest uptime.</p> <p>Optical system shall be capable for upgrading future requirements as and when required.</p>			
14	<p><b>Small part analysis:</b></p> <p>Equipment shall have capacity to test small samples. Manufacturer shall have provided small sample adaptor for the measurement of irregular size and shape.</p> <p>.</p>			
15	<p><b>Application report:</b></p> <p>Manufacturer shall provide separate printed authorized document for each base, each program and each element confirming analytical performance of the instrument with respect to achievable precision values and the detection limits for each element at different concentration levels with 3 sigma's as given in Annexure F1 or better.</p>			
15.1	<b>Fe base metals and its alloys</b>			

	% Element	Min	Max			
	<b>C</b>	0.0015	4.50			
	<b>Si</b>	0.0005	19.00			
	<b>Mn</b>	0.0005	29.00			
	<b>P</b>	0.0005	2.20			
	<b>S</b>	0.0005	0.43			
	<b>Cr</b>	0.0010	33.0			
	<b>Mo</b>	0.0005	9.50			
	<b>Ni</b>	0.0010	46.0			
	<b>Al</b>	0.0005	8.70			
	<b>Co</b>	0.0010	18.00			
	<b>Cu</b>	0.0005	8.00			
	<b>Nb</b>	0.0010	2.8			
	<b>Ti</b>	0.0005	2.5			
	<b>V</b>	0.0005	10.00			
	<b>W</b>	0.0050	19.00			
	<b>Pb</b>	0.0010	0.25			
	<b>Sn</b>	0.0005	0.22			
	<b>Mg</b>	0.0010	0.20			
	<b>As</b>	0.0010	0.10			
	<b>Zr</b>	0.0010	0.220			
	<b>Bi</b>	0.0010	0.067			
	<b>Ca</b>	0.0001	0.0130			
	<b>Ce</b>	0.0010	0.170			
	<b>Sb</b>	0.0010	0.220			
	<b>Se</b>	0.0020	0.310			
	<b>Te</b>	0.0010	0.08			
	<b>Ta</b>	0.0100	0.55			
	<b>B</b>	0.0002	2.00			
	<b>Zn</b>	0.0010	0.03			
	<b>La</b>	0.0005	0.045			
	<b>N</b>	0.0010	1.10			
15.2	<b>Al base metals and its alloys</b>					
	% Element	Min	Max			
	<b>Si</b>	0.0005	30.0			
	<b>Fe</b>	0.0005	10.00			
	<b>Cu</b>	0.0001	14.0			
	<b>Mn</b>	0.0002	20.0			
	<b>Mg</b>	0.0005	11.00			
	<b>Cr</b>	0.0002	0.40			
	<b>Ni</b>	0.0003	4.00			
	<b>Zn</b>	0.0008	20.00			
	<b>Ti</b>	0.0003	5.00			
	<b>Ag</b>	0.0001	1.00			
	<b>As</b>	0.0010	0.011			
	<b>B</b>	0.0001	1.40			
	<b>Ba</b>	0.0001	0.006			
	<b>Be</b>	0.00005	0.0210			
	<b>Bi</b>	0.0005	0.71			
	<b>Ca</b>	0.0001	0.040			
	<b>Cd</b>	0.0001	0.330			
	<b>Ce</b>	0.0010	0.046			
	<b>Co</b>	0.0004	1.50			

	<b>Ga</b>	0.0002	0.10			
	<b>Hg</b>	0.0003	0.010			
	<b>In</b>	0.0003	0.100			
	<b>La</b>	0.0003	10.00			
	<b>Li</b>	0.0001	8.00			
	<b>Mo</b>	0.0005	0.120			
	<b>Na</b>	0.0001	0.021			
	<b>P</b>	0.0008	0.0170			
	<b>Pb</b>	0.0005	1.50			
	<b>Sb</b>	0.0015	0.55			
	<b>Sn</b>	0.0003	21.00			
	<b>Sr</b>	0.00005	9.00			
	<b>V</b>	0.0005	0.110			
	<b>Zr</b>	0.0002	0.85			
	<b>Sc</b>	0.0002	0.40			
15.3	<b>Cu base metals and its alloys</b>					
	% Element	Min	Max			
	<b>Zn</b>	0.0015	50.0			
	<b>Pb</b>	0.0010	22.00			
	<b>Sn</b>	0.0005	14.80			
	<b>P</b>	0.0005	1.10			
	<b>Mn</b>	0.0002	22.00			
	<b>Fe</b>	0.0002	6.60			
	<b>Ni</b>	0.0005	34.0			
	<b>Si</b>	0.0005	7.15			
	<b>Mg</b>	0.0001	0.18			
	<b>Cr</b>	0.0002	2.40			
	<b>Te</b>	0.0003	0.12			
	<b>As</b>	0.0004	0.78			
	<b>Sb</b>	0.0035	1.70			
	<b>Cd</b>	0.0001	0.11			
	<b>Bi</b>	0.0005	5.80			
	<b>Ag</b>	0.0003	2.10			
	<b>Co</b>	0.0015	2.40			
	<b>Al</b>	0.0005	12.50			
	<b>S</b>	0.0002	0.21			
	<b>Be</b>	0.0001	2.8			
	<b>Zr</b>	0.0002	0.380			
	<b>Au</b>	0.0005	0.055			
	<b>B</b>	0.0001	0.035			
	<b>C</b>	0.0005	0.060			
	<b>Ti</b>	0.0002	0.78			
	<b>O</b>	0.005	0.30			
	<b>Se</b>	0.0008	1.40			
	<b>Nb</b>	0.0010	1.30			
15.4	<b>Ni base metals and its alloys</b>					
	% Element	Min	Max			
	<b>C</b>	0.001	1.1			
	<b>Si</b>	0.001	5			
	<b>Mn</b>	0.0005	3.3			
	<b>P</b>	0.001	1			

	<b>S</b>	0.001	0.30			
	<b>Cr</b>	0.001	35			
	<b>Fe</b>	0.001	54			
	<b>Mo</b>	0.0015	34			
	<b>V</b>	0.0005	1.1			
	<b>Cu</b>	0.0005	41			
	<b>W</b>	0.005	11			
	<b>Co</b>	0.003	21			
	<b>Nb</b>	0.003	8			
	<b>Al</b>	0.001	7			
	<b>Ti</b>	0.001	6.2			
	<b>Zr</b>	0.001	0.3			
	<b>Sn</b>	0.001	12			
	<b>B</b>	0.0001	0.03			
	<b>Mg</b>	0.0005	0.13			
	<b>Pb</b>	0.001	0.07			
	<b>Ta</b>	0.005	5.0			
	<b>N</b>	0.001	0.30			
	<b>Hf</b>	0.01	1.5			
	<b>Re</b>	0.1	6.0			
16	<p>CRMs shall be provided for following base metals and its alloys The cost for the same must include in quotation separately. (List of require CRMs is given below.)</p> <p><b>CRMs shall be traceable to National / International Standards as per ISO:17034.</b></p> <p><b>Certified Reference Materials shall be supplied from globally reputed and accredited suppliers i.e. BAS / Brammer / MBH only.</b></p>					
16.1	Fe base alloy -Low Alloy Steel- 12X 43400 A (MBH) (~38mm Ø X ~20mm) or Equivalent -1 No					
16.2	Fe base alloy -Low alloy Steel- 12X 52986 A (MBH) (~38mm Ø X ~20mm) or equivalent – 1No					
16.3	Al base alloy - Al/Si/ Cu - 55X G900 J3 F (MBH) (~50mm Ø X ~20mm) or Equivalent -1 No					
16.4	Al base alloy - Al/Si/ Cu - 55X G28J1 Z (MBH) (~50mm Ø X ~17mm) or equivalent – 1No					
16.5	Ni base alloy - BCS/SS-CRM 350 – Nickel Alloy IN 713 Disc (~50mm Ø X 13mm) (BAS) or Equivalent -1 No					
16.6	Ni base alloy - BCS/SS-CRM 351/1 – Nickel Alloy IN 718 Disc (~50mm Ø X 13mm) (BAS) or Equivalent -1 No					
16	<p><b>Calibration of equipment:</b></p> <p>Manufacturer shall provide calibration certificate of equipment comply with national or international standards.</p> <p><b>Manufacturer shall provide all required calibration standards with equipment.</b></p>					

	Also Manufacturer shall ensure repeatability and reproducibility for homogeneous samples on spark analyzer with respect to CRMs.			
17	<b>PC, Printer and UPS:</b>  Latest PC, Printer & UPS 2 KVA with 30 min backup, Software compatible with latest Windows 10 or better Platform <b>PC Configuration:</b> Intel Core i7 processor Min. 8 GB RAM or better (shall have provision to expand) Min. 1 TB Hard Disk Drive or better DVDRW Drive CD/DVD Recording Software Keyboard and Optical Scrolling Mouse High Speed USB ports 10/100 Mbit Ethernet NIC (2 Nos.) (Compulsory) Original 64 Bit with updated Microsoft Windows 11 Operating System (Licensed version) Color Monitor (TFT >= Minimum 21”) (HD Resolution)			
18	<b>Printer :</b> Laser Printer: Memory:64MB min, Processor: 400MHz, Printer Speed: Up to 20 ppm, Printer Technology: 1200dpi, Number of Print Cartridge :1 (Black), Standard connectivity: 1 Hi-Speed USB (Compatible with USB 2.0 Specification) Port, Media Type: Plain Paper A4 Size, Certifications: UL/FCC/CE & Standard OEM warranty.			
19	UPS 2 KVA with 30 min backup			
20	<b>Software Support:</b> Instrument shall have a built-in diagnostic software features providing operational status of individual component of the instrument and assist in identifying a fault in the machine.  Software shall have material equivalent grade Identification method.  Software - Shall provide latest version with free updates (if any) for at least 10 years with free of cost & support.			
20.1	Software shall have different programmes for analysis Fe base and its alloy – ( low alloy steel, free cutting steel, cast iron, Cr-Cr/Ni steel, high speed steel)			
20.2	Software shall have different programmes for analysis Al base and its alloy – (Al – Pure, Al-Si alloy )			

20.3	Software shall have different programmes for analysis Cu base and its alloy – ( Pure Copper, Cu/Zn, Cu/ Ni, Gun metal, Cu/10/Pb , Cu/Al )			
20.4	Software shall have different programmes for analysis Ni base and its alloy – ( Pure Ni, Monel, Ni/Mo/Cr/Co/W alloy, Ni/Fe/Cr alloy )			
20.5	Software shall be perpetual in nature without any interlocks from any external sources. Manufacturer shall provide software code, exe, installer files and software manual.			
21	Equipment shall include all required accessories to make machine fully in operation.			
22	<b><u>Manuals</u></b> Manufacturer shall provide Three copies (both hard copy and soft copy) of detailed user manuals (operating and maintenance) with complete circuit diagrams (mechanical, electronic, and electrical).			
23	<b><u>Training:</u></b> Manufacturer shall provide training for Five (5) working days wherein the training shall be about operations, instructions, maintenance as well as trouble shooting & all other areas which are necessary for smooth functioning of Machine after installation and commissioning at CIRT.			
24	<b><u>Warranty:</u></b> The bidder shall give warranty for 3 years from the date of commissioning of the equipment against any manufacturer defects or any other defects.			
25	Customer Service Support (after Warranty period) - Customer Service Support shall be provided for minimum period of 7 years after the initial warranty period of 3 years.			
26	<b><u>Spares and consumables:</u></b> Manufacturer shall provide a sufficient spares and consumables for smooth and trouble-free operation for a period of 3 years.			
27	Spares & Consumables support for 7years after warranty period.			
28	Pre-Dispatch Inspection: Pre-Dispatch Inspection of the equipment shall be carried out by CIRT personnel and the expenditure towards the same shall be borne by the OEM.			
29	Equipment must meet the Environmental, Health and safety aspects. If hazardous material is used, then please provide MSDS (Material Safety Data Sheet) and procedure for disposal.			
30	Delivery: Equipment/ Test Rigs shall be supplied to CIRT within a period of 120 days from the date of acceptance of P.O.			

**UNDERTAKING TO BE SUBMITTED IN CASE BIDDER IS TEST EQUIPMENT  
MANUFACTURER**

*(To be submitted on the letterhead of the equipment manufacturer in case bid is submitted by  
test equipment manufacturer)*

I / We hereby certify and confirm that we M/s. .... (Name of the Bidder) here by  
give undertaking that we will extend our full warranty, maintenance service and supply of  
spares during warranty period and customer support service period, in accordance with terms  
and conditions of the tender document.

Yours faithfully,

(Signature, name, and designation of the authorized signatory)

For and on behalf of .....

(Stamp of test equipment manufacturer)



## **Annexure I**

### **UNDERTAKING TO BE SUBMITTED BY TEST EQUIPMENT MANUFACTURER IN CASE BIDDER IS DISTRIBUTOR OF TEST EQUIPMENT MANUFACTURER**

*(To be submitted on the letterhead of the equipment manufacturer)*

I / We hereby certify and confirm that we M/s. .... (Name of the Test equipment manufacturer) here by give undertaking that we will extend our full warranty, maintenance service and supply of spares during warranty period and customer support service period, in accordance with terms and conditions of the tender document.

I/ We also certify that M/s. .... (Name of the Distributor) is our authorized distributor from last -----years. M/s. ----- (Name of the Distributor) is associated with us and have expertise of installation, commissioning, maintenance and repair in most effective manner.

Yours faithfully,

(Signature, name and designation of the authorized signatory)  
For and on behalf of .....

(Stamp of test equipment manufacturer)

(to be printed in letter head)

---

**Self-Certification under preference to Make in India order  
Certificate**

In line with Government Public Procurement Order No. P-45021/2/2017-PP(BE-II) dated 16.9.2020 and its amendments, if any we hereby certify that we M/s \_\_\_\_\_ are local supplier meeting the requirement of minimum local content i.e. \_\_\_\_\_% as defined in above orders for the material against Tender No.....dated..... Details of location at which local value addition will be made as follows: \_\_\_\_\_.

We also understand, false declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Thanking You,

---

**Signature with date:**

**Name:**

**Designation:**

**Bidder Seal**

(to be printed in letter head)

---

Self-Certification to be submitted by Non-local suppliers

We hereby declare that we are non-local  
suppliers..... with factory of manufacturing  
unit at address as follows

.....  
We also understand, false declarations will be in breach of the code of integrity under rule  
175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred  
for up to two years as per Rule 151(iii) of the General Financial Rules along with such other  
actions as may be permissible under law.

Thanking You,

\_\_\_\_\_ Signature with date:

Name:

Designation:

Bidder Seal

**Format for submission of letter from purchaser of Spark Optical Emission Spectrometer (OES) Analyser (To be submitted on the letterhead of purchaser)**

We, M/s. \_\_\_\_\_ have purchased Spark Optical Emission Spectrometer (OES) Analyser from M/s. \_\_\_\_\_ in the year \_\_\_\_\_. Purchased Spark Optical Emission Spectrometer (OES) Analyser in the year \_\_\_\_\_ is currently operating satisfactorily.

Signature of authorised signatory of purchaser with date:

Name:

Designation:

Company Name:

Seal of Purchaser Company :