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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

बेंगलूरु शाखा प्रयोगशाला : पीन्या इन्डस्ट्रियल एरिया, पहली स्टेज,
तुमकूर रोड, बेंगलूरु - 560 058.

Bengaluru Branch Laboratory : Peenya Industrial Area, 1st Stage,
Tumkur Road, Bengaluru - 560 058

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POSTED UNDER POSTAL CERTIFICATE

Our Ref : BNBL/13:2

Date: 20 November 2013

Subject: Supply of Life Test Rack for CFL conforming to the specification given in Annexure-I

To

Dear Sir,

Technical & Financial Bids are invited for the supply of **Life Test Rack for CFL**, in separate **SEALED** covers, which should reach the undersigned latest by 1700 hrs. on **17th December 2013** at the following address:

Scientist-F & Head,
BUREAU OF INDIAN STANDARDS
Bengaluru Branch Laboratory
Peenya Industrial Area, 1st Stage, Tumkur Road,
BENGALURU – 560 058

- The detailed technical specification(s) of the above mentioned equipment(s)/item(s) are given in **Annexure-I**.
- The terms and conditions of supply are given in **Annexure-II**.
- The technical bids shall be opened in the **Committee Room** of the **Bengaluru Lab** at the address mentioned above at **1030 hrs** on **18th December 2013** and in the presence of such tenderers or their duly authorized representatives, who may like to attend.
- Please note that the envelopes containing Technical & Financial Bids are sealed properly, i.e. either wax sealed or with adhesive cello tape on both ends. Unsealed and stapled envelopes shall not be accepted.
- The specification and terms and conditions can also be downloaded from BIS website – www.bis.org.in.

Thanking you,

Yours faithfully,


(Sc.F & Head BNBL)

Encl: As above

BUREAU OF INDIAN STANDARDS (BANGALORE BRANCH LABORATORY) **EQUIPMENT SPECIFICATION**

Annexure - I

NAME OF THE EQUIPMENT	:	Life Test Rack for CFL lamps
NAME OF BIS LAB	:	BNBL
TOTAL QUANTITY REQUIRED	:	01(one)

1.0 Scope

Covers the basic guiding requirements for the design of life test rack required for carrying out the following test:

- Test for life on CFL lamps as per Cl.13 of IS 15111(Part 2): 2002.

2.0 Test conditions

A sample of CFL lamps subjected to Life Test normally consists of 10 lamps. These lamps are fixed in suitable holders and operated vertically with cap up. The rack on which the lamps are mounted is to be free from shocks and vibrations. The test voltage is to be closely regulated within $\pm 2\%$. The lamps are to be operated on alternating current at a frequency of nominal value of 50Hz. The waveform is to be closely sinusoidal with a minimum of harmonics at other frequencies. The total harmonic content of the supply voltage is to be within 3%. The ambient temperature is to be kept within the range of 15°C to 40°C. The lamps on Life Test are to be switched off 8 times in every 24h running. The 'off' period is to be between 10minutes and 15minutes. The 'on' period is to be at least 10minutes. The Lamps are operated for 6000 hours.

3.0 Construction

3.1 The rack shall be designed and constructed to carry out life test on compact fluorescent lamps of the following ratings:

- a rated wattage up to and including 26W
- a rated voltage up to and including 250V

The equipment shall be designed and constructed based on the following considerations:

- Personnel safety against electric shock
- Safety against the effects of excessive temperature and fire
- Reliable operation

3.2 Provision shall be made to operate 240 nos. of B22 cap lamps (up to 26W rating). That means, the total number of holders to be provided on the rack is as follows:
B22d cap lamp holders : 240nos.

The holders shall be wired parallel to be supported by a three phase system.

Typical details for the fabrication of the life test rack are shown in the drawing attached. There are four arms each at three levels, each arm holding 20 holders.

3.3 The mechanical structure of the rack shall be fabricated out of MS square sections of adequate size and thickness so that it is sturdy and having adequate mechanical stability and free from twisting, warping, etc. and shall not bend during insertion or extraction of lamps. It shall be powder coated so as to ensure that during the long and extended use of the equipment, it shall be durable and free from rusting.

3.4 The B22 cap lamp holders shall be of plunger type and sturdy to withstand the long and extended use of the equipment.



- 3.5 The holders shall be mounted on suitable MS sections which shall be powder coated. The spacing between the lamp holders both longitudinally and laterally shall be such that the operation of one lamp does not cause overheating of another lamp. The screws, bolts, nuts, washers, etc., used if any, shall be non-rusting and shall not get damaged in a few operations.
- 3.6 A hinged panel of MS sheet metal of adequate thickness and powder coated shall be provided on the front side of the rack for housing switchgear, control gear and measuring instruments.
- 3.7 All electrical wiring connections shall be made using heat resistant fiber glass insulated copper conductors of adequate current rating. The current rating of the conductors shall be such that the voltage drop between the point of measurement and the holder contacts is within 0.1% of the test voltage. All wiring terminations shall be made using suitable copper lugs of appropriate size. Terminal blocks, used if any, shall be of adequate current rating. A 3-phase/4pole MCB of appropriate rating and of reputed make shall be provided on the front panel for supplying three phase power to the rack. Further, a double pole MCB of appropriate rating and of reputed make shall be provided on the front panel for supplying power to each set of 80 lamps at each level. Also, for each set of 20 lamp holders, there shall be an MCB of appropriate rating for protection against overload, short circuit, etc. It shall be of reputed make and shall be mounted on the front panel.
- 3.8 An isolator ON/OFF rotary switch of adequate current rating and reputed make shall be provided on the front panel for each set of 80 holders at each level for the isolation of power for maintenance, repair, fault localization, etc.
- 3.9 Indicator lamps shall be provided on the front panel for each set of 80 holders for indicating the mains supply ON/OFF.
- 3.10 Three numbers of 3.5 digit digital panel meter, 0.5% accuracy, 0 – 300VAC shall be provided on the front panel for measuring the input voltage to each set of 80 lamps.
- 3.11 Three user programmable electronic timer(0 – 9999 hours) along with power tripping device shall be provided on the front panel for each set of 80lamps for setting the life test period of the lamps, so that after completion of the set time, the power supply to the lamps shall be cut off automatically.
- 3.12 Three user programmable electronic cyclic timer (0 – 999min. ON time & 0 – 99min. OFF time) shall be provided on the front panel for switching on and switching off the lamps as per Cl.A-4.3 of IS 15111(Part 2): 2002 for each set of 80 lamps.
- 3.13 Three electro mechanical time totalizers (0 – 99999.99 hours) of reputed make shall be provided on the front panel for each set of 80lamps for recording the life test period of the lamps.
- 3.14 One digital temperature indicator (0 - 100°C) shall be provided on the front panel for recording the ambient temperature in which the lamps are operated.

4.0 Auto transformer

Three numbers of continuously variable voltage auto transformers, oil cooled shall be provided for supplying adjustable power to each set of 80lamps. The specifications of the auto transformers shall be as follows:

Rated output current	: 40Amperes
Rated input voltage	: 240V
Rated output voltage range	: 0 – 270V



Rated frequency : 50Hz
Number of phases : Single phase
Type of cooling : Natural oil cooled

The auto transformers shall be supplied with first filling of ISI marked transformer oil. Suitable provision shall be made for keeping the auto transformers inside at the bottom of the rack.

5.0 Calibration :

Calibration certificates on the voltmeters as well as the timers from NABL accredited calibration agency shall be furnished along with the equipment. The calibration certificate on timers may be for a shorter length of time since it may not be practical to carry out the calibration check for the full range.

6.0 Documentation

Technical documentation such as instruction, operating, maintenance/service manuals containing schematic diagrams, list of component parts with performance data and list of spare parts, etc. shall be supplied along with the equipment.

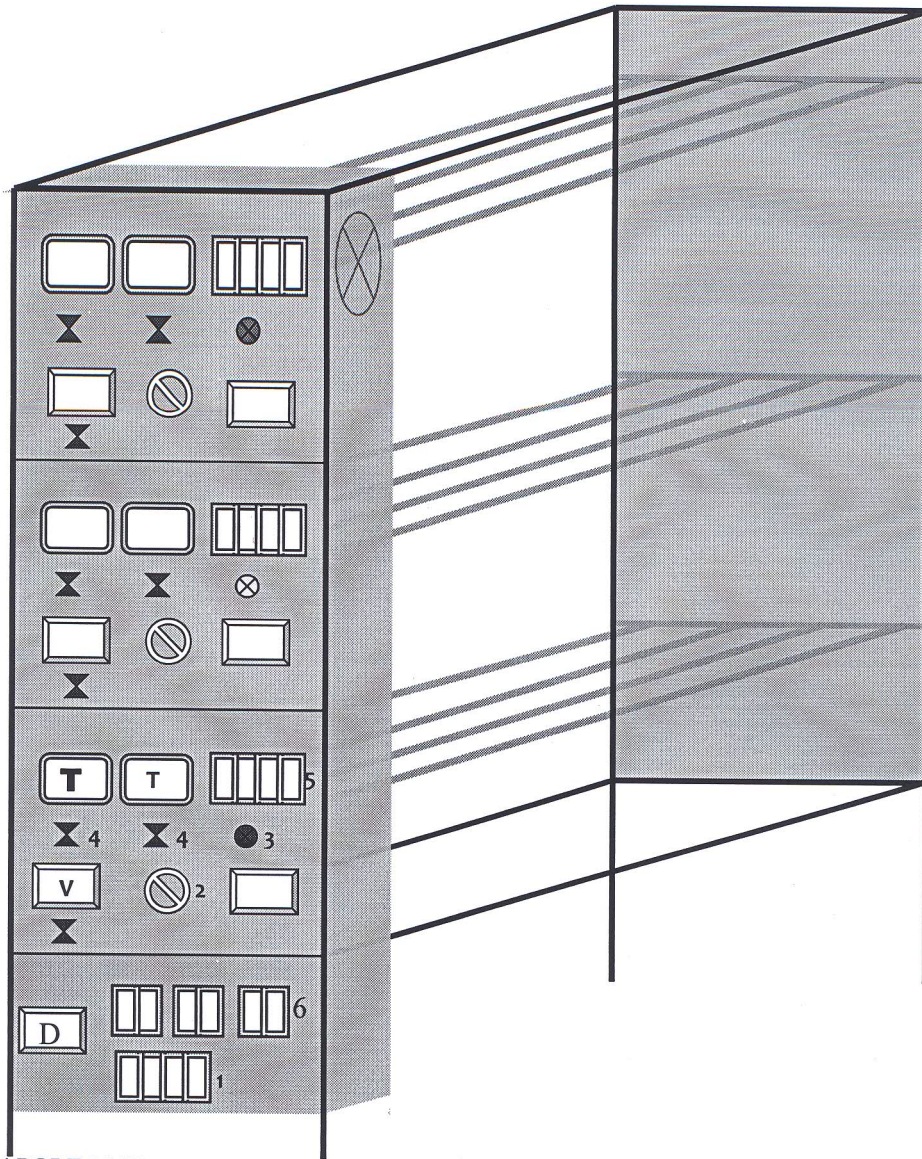
7.0 Guarantee

The equipment shall be guaranteed for a minimum period of one year of satisfactory operation and thereafter comprehensive service support shall be provided.

	PREPARED BY	CHECKED BY	APPROVED BY
SIGNATURE			
NAME	M Raju Peter	N Shivanandan	S P Hiremath
DESIGNATION	LOB	Sc-'E' & OIC (E)	Sc-'F' & H BNBL
DATE			



LIFE TEST RACK FOR CFL LAMPS



- 1 – 4 POLE MCB, TYPE D
- 6 – DOUBLE POLE MCB, TYPE D
- 2 – ISOLATOR ROTARY SWITCH
- 3 – INDICATOR LAMP
- 4 – ON-OFF SWITCH FOR METER/TIMER
- 5 – SINGLE POLE MCB, TYPE B
- V – VOLTMETER (DPM)
- T – PROGRAMMABLE TIMER
- D – DIGITAL TEMPERATURE INDICATOR
- ⊗ - COOLING FAN

TERMS & CONDITIONS

- 1) The Tenderers are requested to give detailed tender in their own forms in two bids i.e.
Part-A Technical Bid
Part-B Financial Bid
- 2) The specifications of equipment have been specified against each item. However, bidder(s) may be required to arrange practical demonstration of equipment/model(s) quoted by them before finalization of order.
- 3) Tender document will be issued by BIS, Bengaluru Branch Laboratory or can also be downloaded from website. Bidders are requested to download the Tender Documents and enclose a non-refundable bid fee of Rs.500/- (Rupees Five Hundred only) for each item separately, in the form of Demand Draft drawn in favour of **BUREAU OF INDIAN STANDARDS** payable at **Bengaluru**. **The Bid fee should be enclosed with Technical bid only.**
- 4) In the technical bid, the following be clearly indicated:
 - a. The equipment is required to be installed at locations indicated in the Tender Notice and subsequently training is to be provided to the concerned Scientists/testing personnel, where necessary.
 - b. Packing, forwarding, freight & insurance and commissioning charges, if any extra may be quoted separately in Financial Bid.
 - c. In case your quote is F.O.R/F.O.B basis, estimated insurance coverage charges may be indicated.
 - d. CIF (Carriage inward & freight), Bengaluru value (both by Airfreight and Ocean freight), where applicable.
- 5) Tenders complete in all respects for each item should be submitted separately for **Technical** as well as **Financial bids** as follows:
 - a. One sealed envelope super scribed “**Technical Bid**” will contain only the technical specifications of the indented equipment as per details in Clause 6 of this tender terms and conditions.
 - b. A second sealed envelope super scribed “**Financial Bid**” will contain only the financial bid in which price, maintenance, Annual Maintenance contract Charges (AMC) etc. and any other information, which has financial implications, will only be given. **The Demand Draft of the EMD (see Para 42) be placed inside a separate sealed envelope clearly marked ‘EMD’ on the right hand side corner of the envelope and be stapled along with this sealed envelope containing the Financial Bid.** However, the EMD of the successful Bidder may be adjusted against Performance Bank Guarantee.
 - c. Both the above sealed envelopes are to be kept in a main envelope, super scribed as **Tender No. BNBL/13:2 dated 20th November 2013 for Life Test Rack for CFL due on 17th December 2013** and duly sealed.
- 6) The **Technical Bid (Part-A)** should accompany complete Technical specification, manufacturer’s name, address and the following details:
 - a. Expected life span of equipment and accessories.
 - b. List of infrastructural facilities and consumables to be arranged by the Bureau for commissioning of equipment,
 - c. List of the Users in India with their complete postal address to whom the similar equipment has been supplied,



- d. Near locations in India from where after sales services shall be provided along with the name of Servicing Agent,
 - e. The optional and any other essential items/accessories required for the maintenance of the equipment for the next three years.
 - f. Technical Literature of the equipment along with necessary photograph/drawings, if any
 - g. Deviation Statement Form (See Annexure - III)
- 7) Cost of the items should be mentioned clearly in the **Financial Bid (Part-B)** only.
- The following details need to be included:
- a. Price break-up of main equipment and accessories and consumables to be supplied by the party,
 - b. Rebate on the quoted price, if additional equipment is procured for any other BIS Lab, and
 - c. The Annual Maintenance Contract charges for next three years after the expiry of warranty period
 - d. The rates quoted shall be valid for a minimum period of 120 days from the date of opening of the tender. However, the current value of the foreign currency would be applicable at the time of placing the order.
- 8) In case of foreign quote, the Principal supplier should clearly indicate the address of the Indian Agent and percentage (%) of Agency Commission payable if any, to be paid to the Indian Agent in Indian Currency.
- 9) Indicate the names and addresses of the Indian reputed Organizations where you have supplied similar equipment and may attach the satisfactory performance report of the equipment from user Organization.
- 10) (A) If you have supplied identical or similar equipment to Govt. Labs. / Institutes, the details of such supplies for the preceding three years should be given together with the prices eventually or finally paid.
- (B) Based on the above information BIS will have its option to obtain details of the equipment, their performance, after sales services etc., for evaluation of the tender, directly from the concerned Labs/Scientists etc.
- 11) Fax/E-mail tenders shall not be considered
- 12) All the Bank Charges inside and outside India, including opening of LC, Communication confirmation, amendments etc., will have to be borne by supplier only.
- 13) Details of after-sales services offered by you are to be made clear in the tender.
- 14) **Delivery Period:** As time is the essence of the contract, Delivery period mentioned in Purchase Order should be strictly adhered to. Otherwise the tenderer will forfeit EMD, after maximum 10 days of the last date of delivery.
- 15) The supplier will have to give along with the equipment complete drawings, circuit diagrams, service/maintenance manual & operating manual of the equipment.
- 16) With regards to terms of payment including period of warranty, we prefer to release Payment on BILL Basis (excluding Indian Agency Commission) after receipt of consignment in good condition and satisfactory installation, and commissioning thereof. Alternatively, depending upon the value and foreign exchange regulations the payment can also be considered through Draft/Letter of Credit through the Canara Bank for the order value, excluding the Indian Agency Commission. However, the detailed payment for Draft/Letter of Credit is mentioned at clause No.23 of this tender terms and conditions.



- 17) Supply means "Supply, Installation, Commissioning and satisfactory demonstration of the whole systems and training." If there are any charges extra for Installation, Commissioning and training, the same should be specified in the financial bid.
- 18) All goods shall be inspected by BIS preferably in the presence of supplier or his authorized representative, when the packages are opened in Labs prior to installation. The decision of BIS shall be binding. Rejected items/goods/stores shall be removed by the supplier at his own cost and risk, within 30 days of receipt of notice for the removal of such goods, and no liability, whatsoever, on the Bureau shall be attached for the rejected/disapproved goods/items/stores.
- 19) The Tenderer is required to furnish the Permanent Account Number (PAN) allotted by the Income Tax Department.
- 20) In case of foreign quote, the address of Principal's /Manufacturer's and their Banker's details should be furnished.
- 21) The item should be supplied with manuals and the manuals including technical drawings should be complete in all respects to operate the system without any problem. If the manuals are on chargeable basis, the same should be specified in the offer.
- 22) The supplier is required to insure having a import licence for the equipment quoted where applicable as per GOI guidelines.
- 23) In case of Indigenous Items, the offer should contain the Basic Price and percentage of Excise Duty should be shown separately, BIS shall pay custom duty as applicable.
- 24) Price shall specifically indicate sales tax, excise duty or any other charges. In absence of any such stipulation, it will be presumed that the prices include all such charges and no claim for the same shall be entertained. The Bureau pays full CST and neither Form C nor Form D is provided.
- 25) (A) The successful bidder shall furnish within 15 days of placement of the order an unconditional Performance Bank Guarantee valid till 60 days after the warranty period from a Nationalized Bank for 10% of the order value within 15 days of placement of the order. On acceptance of this condition and submission of Bank Guarantee, the Letter of Credit will be opened for 100% order value. If the firm fails to submit the same, the Contract shall be deemed as terminated and the firm will forfeit the EMD, in case of foreign suppliers & indigenous suppliers. The performance Bank Guarantee is to be given in format enclosed at **Annexure - IV**, enclosed with this document.

(B) **For foreign suppliers:** PAYMENT 90% payment shall be made by Site Draft/ an Irrevocable Letter of Credit established in favor of the supplier through the Canara Bank, Peenya, Bangalore for the order value, excluding the Agency Commission due to the Indian Agents, against the presentation of original Shipping documents. Balance 10% will be released after completion of satisfactory installation, commissioning and demonstration of the whole system and on completion of training. However letter of Credit/Site Draft arrangement will be made for 100% order value. The Agency Commission to the Indian Agent, if any and payable by BIS will be paid only after successful installation, commissioning and satisfactory demonstration and acceptance of the items ordered for.

(C) **For Indigenous items:** 90% payment shall be made against delivery, installation, Commissioning, training and on acceptance as per Purchase Order at site and balance 10% shall be made after receipt of performance Bank Guarantee for 10% of the total order value, to be valid for One Year from the date of installation and acceptance.
- 26) The bidder has to state in detail the Electrical Power/UPS requirement, floor Space, head room, foundation needed and also to state whether Air-conditioned Environment is needed to house the



system and to run the tests i.e. pre-installation facilities required for installation may please be intimated in the technical bid.

- 27) **INSTALLATION:** Bidder shall be responsible for installation/demonstration wherever applicable and for after sales service during the warranty and thereafter.
- 28) IN case of Foreign Quote, the mode of dispatch should be by Air Post Parcel/Ocean Freight/Air Freight (By Air India Freight) and on Freight to-pay basis only. The approximate dimension of the packages and weight of consignment are to be indicated.
- 29) The make/brand name and address of the manufacturer, Country of Origin, Country of Shipment and currency in which rates are quoted are to be mentioned.
- 30) The payment of local currency portion shall be payable in equivalent Indian Rupees, within 30 days after the receipt of the equipment in good condition and after satisfactory installation and commissioning, demonstration and training.
- 31) The tender/quotation/offer submitted by you should be valid for a minimum period of 120 days from the date of opening of the tender.
- 32) The quotation should be only in Indian Rupees for indigenous items. In case of foreign quote, the vendors may quote their rates in Indian Rupees as well as in foreign Currency.
- 33) The Bidder who submits the tender on behalf of their principals should produce documentary evidence in support of their authority to quote or submit proforma invoice of their principals.
- 34) BIS will not provide any accommodation/transportation for the Engineers/ Representatives for attending Installation, Commissioning and Demonstration Work. It is the absolute responsibility of the Principal Supplier/Indian Agent to make their own arrangements.
- 35) **WARRANTY:** The equipment is to be guaranteed for trouble free **performance** for a minimum period of two years after installation. The defects, if any, during warranty period are to be rectified free of charge by arranging free replacement wherever necessary.
- 36) Indicate the name of firm, address, contact person, phone no. and fax no. etc. of onsite warranty agency who shall maintain during warranty and undertake Annual Maintenance Contract/Comprehensive Service Maintenance Contract beyond warranty shall be given in the technical bid. In case of foreign quote, the Indian Agent who shall maintain during warranty and AMC beyond warranty shall be given in the Technical Offer.
- 37) The supply of spare parts is to be guaranteed at least for a period of 10 years after the supply of the equipment.
- 38) After successful installation what will be the minimum down time of equipment/instrument in case of breakdown. If the identified firm or person fails to put the system into working condition what is the further alternative course of action suggested by you to adhere to minimum down time.
- 39) Please mention the charges for comprehensive annual maintenance contract separately for 3 years in financial bid (for post warranty period).
- 40) No sub-contracting will be allowed for installation or maintaining system/ equipment/instrument during or after warranty period.
- 41) Discount offered should be mentioned clearly in the financial bid only.

- 42) **The Earnest Money Deposit (@ 5% of Quoted Price or as specified in the Tender Document must be sent along with your financial bid in the form of a Demand Draft, Banker cheque or Bank Guarantee (from a Nationalized Bank only) drawn in favour of BUREAU OF INDIAN STANDARDS payable at Bengaluru, otherwise your technical & financial bids will not be considered at all. The Earnest Money of successful bidder will be returned only after installation, commissioning, satisfactory demonstration and acceptance of the equipment by the user Scientist/HOD as per the terms of our purchase order. The Earnest Money of the unsuccessful bidder whose technical bid has not been found suitable will be returned.**
- 43) (A) Tenders not accompanied with Demand Draft/ Bank Guarantee towards "Earnest Money Deposit" will summarily be rejected.
- (B) Tenders which are submitted without following the Two-Bid offer System, will summarily be rejected.
- (C) Unsigned Tenders will also be rejected.
- 44) Conditional Offers will not be considered.
- 45) If the supplier fails to supply, install and commission the system as per specifications mentioned in the order within the due date, the supplier is liable to pay liquidated damages of one percent value of the Purchase Order awarded, per every week delay subject to a maximum of 10% of the total value of the order and such money will be deducted from any money due or which may become due to the supplier.
- 46) Goods should not be dispatched until the vendor receives a firm order.
- 47) Firms which have already supplied similar equipment to BIS and have not completed required installation/commissioning/after sales service/warranty replacements etc., such firm's offers will not be considered for further evaluation and no enquiries thereafter will be entertained.
- 48) Tenders addressed to the Sc.F & Head, Bengaluru Branch Laboratory, Bureau of Indian Standards, Bengaluru – 560 058 are to be submitted for each item separately as detailed in Clause 5 of this tender terms and conditions.
- 49) The tenders must be clearly written or typed without any cancellations/corrections or overwriting.
- 50) Please indicate Page Nos. on your quotation. E.g. If the quotation is containing 25 pages, Please indicate as 1/25, 2/25, 3/25-----25/25.
- 51) **Last Date and Time for receipt of Tenders:** The tenders will be received in the Bengaluru Laboratory, Bureau of Indian Standards, Peenya Industrial Area, 1st Stage, Tumkur Road, Bengaluru -560058 **up to 1700 hrs. on 17th December 2013.**
- 52) BIS will not be responsible:
- For delayed/late quotations submitted/sent by Post/Courier etc.
 - For submission/ delivery of quotations at wrong places other than the Office of the Sc.F & Head Laboratory, Bureau of Indian Standards, Peenya Industrial Area, 1st Stage, Tumkur Road, Bengaluru – 560058.



- 53) **Date and Time of opening of Tenders:** The Tender's Part- A (Technical Bid only) will be opened **at 1030 hrs. on 18th December 2013** in the presence of Tenderers who wish to be present.
- 54) The Date and Time of opening for Part B (Financial Bid) will be intimated only to pre-qualified and technically acceptable tenderers for the item at a later date.
- 55) All questions, disputes, differences arising under, out of or in connection with this Bid documents shall be subject to the exclusive jurisdiction of Bengaluru Court.
- 56) The Bureau reserves the right to accept any tender in full or in part or to reject the lowest or any or all tenders without assigning any reason.



DEVIATION STATEMENT FORM

1) The following are the particulars of deviations from the requirements of the tender document and specifications:

CLAUSE	DEVIATION	REMARKS (Including justification)

Place :

**Signature & Seal of the
Manufacturer / Bidder**

Date :

NOTE:

1. Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".



PERFORMANCE SECURITY FORM

To _____ (Name of Purchaser)

WHEREAS _____ (Name of supplier)

Hereinafter called "the Supplier" has undertaken, in pursuance of Contract No. _____ dated _____ to supply _____ (Description of Goods and Services) hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a Nationalized Bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of Rs. _____ (Rupees _____ only) being the amount of the Guarantee and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within limit of _____ Rs. _____ (Amount of Guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

The guarantee is valid until the _____ day of _____ 20__.

Signature and Seal of Guarantors

Date-----

Address-----

