INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

भारतीय प्रौद्योगिकी संस्थान मुंबई

MATERIALS MANAGEMENT DIVISION

सामग्री प्रबंधन प्रभाग



REQUEST FOR PROPOSAL FOR THE SUPPLY, INSPECTION, REFILLING, TESTING AND MAINTENANCE OF FIRE EXTINGUISHERS AND RELATED SERVICES

अग्निशामक यंत्रों और संबंधित सेवाओं की आपूर्ति, निरीक्षण, रिफिलिंग, परीक्षण और रखरखाव के लिए प्रस्ताव के लिए अनुरोध

INDEX

Sr. No.	Table of Contents	Page No.
1	SECTION 1 – INVITATION FOR BIDS	03
2	SECTION 2 - ELIGIBILITY CRITERIA	05
3	SECTION 3 – INSTRUCTIONS TO BIDDERS	07
4	SECTION 4 – SCOPE OF WORK	12
5	SECTION 5 – GENERAL TERMS AND CONDITIONS OF CONTRACT	28
6	SECTION 6 - PRICE BID	37
7	SECTION 7- ANNEXURES Annexure 1: Bidder's Information Annexure 2: Declaration of Annual Turnover and Income Tax Return Annexure 3: Experience in Similar Work Annexure 4: Declaration for Acceptance of Tender Terms and Conditions Annexure 5: Declaration Regarding Clean Track	43
8	Section 8: Formats F.1 Format for Performance Bank Guarantee	48
9	Section 9 - CHECKLIST	50

SECTION 1 – INVITATION FOR BIDS

RFP No. / आरएफपी संख्या	MMD/FSS/SC/2024-25
RFP Date / आरएफपी तारीख	21 st March 2024
Item Description / वस्तु विवरण	TENDER DOCUMENT FOR THE SUPPLY, INSPECTION, REFILLING, TESTING, AND MAINTENANCE OF FIRE EXTINGUISHERS AND RELATED SERVICES
Pre- Bid Meeting Date & Time / बोली-पूर्व बैठक की तारीख और समय	01 st April 2024 at 4 P.M
Pre-Bid Meeting Place / बोली-पूर्व बैठक स्थल	Conference Room, Materials Management Division, Ground Floor, Main Building, Indian Institute of Technology Bombay, Powai, Mumbai 400076.
Last date & time of submission of Bid / बोली जमा करने की अंतिम तिथि और समय	12 th April 2024 upto 1.00 p.m.
Place of Submission of Bid / बोली जमा करने का स्थान	Materials Management Division, Ground Floor, Main Building, Indian Institute of Technology Bombay, Powai, Mumbai 400076.
Submission of Bids / बोली जमा करना	Two Bid System: The two-bid system will be followed for this tender. In this system bidders must submit their offer in separate sealed envelopes as — Technical Bid and Price Bid. Both the Technical Bid and Price Bid envelopes should be clearly marked as "Envelope No.1-Technical Bid" and "Envelope No. 2 - Price Bid" and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed with our Tender No. & Due Date and to be submitted to the concern department/section mentioned in the Tender document.
Bid Opening Date & Time / बोली खुलने की तारीख और समय	12 th April 2024 at 4.00 p.m.

Bid Opening Place / बोली खोलने का स्थान	Materials Management Division, Ground Floor, Main Building, Indian Institute of Technology Bombay, Powai, Mumbai 400076.
Earnest Money Deposit / अग्रिम धन राशि	Earnest Money Deposit (EMD) of Rs. 100,000/- (Rs. One Lakh Only) in the form of Demand Draft in favour of "The Registrar, IIT Bombay" payable at Mumbai to be submitted in Technical Bid "Envelope 1".
Technical Clarification / तकनीकी	Name: Mr. Amit Kumar
स्पष्टीकरण	Dept: Fire and Safety Section, IIT Bombay
	Email: fso@iitb.ac.in, akmittal@iitb.ac.in Contact No.: 022 21593050
Any Clarification / अन्य स्पष्टीकरण	Name: Asst. Registrar (MM) Dept: Materials Management Division, IIT Bombay Email: tender.mmd@iitb.ac.in Contact No.: 022-2576 5009
Other Terms and Conditions / अन्य नियम एवं शर्तें	The bidders are requested to visit the provisions of the Fire and Safety Section at the Institute and physically verify the premises during working hours with the permission of the Technical Officer, FSS, IIT Bombay. Contact No.: 022 21593050
Signing Authority / हस्ताक्षर प्राधिकारी	Assistant Registrar (MM)

SECTION 2- ELIGIBILITY CRITERIA

- 1. The bidder should have existence for a minimum period of 5 years. Copy of the Certificate of Incorporation/Registration Certificate of the firm must be enclosed in the technical bid.
- 2. The bidder should have experience in the supply and maintenance of fire extinguishers and should have satisfactorily completed contracts of the following value:
 - a. at least two satisfactorily completed contracts for a minimum amount of Rs. 25,00,000/-

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- b. at least one satisfactorily completed contract for a minimum amount of Rs. 45,00,000/-
- c. NOTE: Completed contracts shall mean the supply and maintenance of similar equipment or installation with any reputed state or central government or PSU or private organisation working for the state or central government or PSU. The scanned copies of the completed work order and completion certificates are to be submitted by the bidder. In the case of a government organization, it can be signed by the officer in charge of the work (not below the rank of group A officer). A supporting document to this effect is to be enclosed along with the offer.
- 3. A copy of the PAN CARD of the firm must be enclosed in the technical bid.
- 4. The GST registration certificate of the firm must be enclosed in the technical bid.
- 5. The bidder should have a minimum Annual Turnover of One crore during the last three financial years i.e. F.Y. 2020-2021, 2021-2022, and 2022-2023. Details as per Annexure 2.
 - a. The audited balance sheet reflecting contractual receipts certified by a chartered accountant with her or his stamp signature and membership number for the completed financial years shall be considered.
 - b. For the latest completed financial year, whose balance sheet is yet to be audited and hence not due, and also for the current financial year, provisional balance sheets issued by the credited accountant clearly indicating contractual receipts and supported by income tax form -26AS shall be considered.
- 6. The bidder should submit details of the firm as per attached **Annexure 1**.
- 7. The bidder must not be blacklisted/suspended by any public procurement entity like the government depts./PSUs/autonomous bodies. There should not be any service-related disputes or legal cases pending with any organisation/govt. depts./banks in India or abroad. The undertaking must be enclosed in the technical bid as per format **Annexure 5**.
- 8. The Bidder should accept Tender Terms and Conditions. The undertaking must be enclosed in the technical bid as per format **Annexure 4**.
- 9. The bidder is required to appoint One Fire Officer, Three Junior Fire Officers, and four Fire Steward for IIT Campus. The Fire Officer should have a Degree or Diploma in Engineering

and any diploma in fire and safety from a state approved technical institute with a minimum of 5 years of experience in a related domain. He shall act lead of the team. The Junior fire officer should have a degree or Diploma in fire and safety from a state approved technical institute with a minimum of 3 years of experience in related fields. The Fire Steward should have 10th Pass having the ability to understand and execute as per the given instructions. The successful bidder has to provide the required employees within 30 days of the award of the contract.

- 10. The banking certificate should be obtained from a scheduled bank in India, and it should not be more than 3 months old as of the date of submission of the bid.
- 11. The bidders shall submit an undertaking certifying the truthfulness of all the documents uploaded along with the tender. This shall be mandatory for all bidders. In the event of the bidder's failure to submit the undertaking, their offer shall be summarily rejected.

SECTION 3 – INSTRUCTIONS TO BIDDERS

1. SUBMISSION OF OFFER

- a. The Quotation MUST BE ENCLOSED IN A SEALED COVER super scribing Tender number / due date & should reach the undersigned on or before the due date mentioned in the tender notice. If the quotation cover is not sealed, it will be rejected.
- b. Tender should be dropped in the tender box kept in the office of the concerned Department. No tender is to be handed over to our staff personally unless otherwise specified. All communications are to be addressed to the undersigned only
- c. The bid can be submitted in person or through post/ courier (IIT Bombay shall not be responsible for any postal delays or any other reason for not submitting the bid in the specified time and resulting in disqualification/rejection of any bid) to reach on or before the due date and time.

2. COST OF BIDDING:

a. The Bidder should bear all costs associated with the preparation and submission of its Bid and the Purchaser shall not be responsible or liable for those costs.

3. VALIDITY OF THE BID:

a. 180 Days from the date of submission of the bid.

4. AMENDMENT OF BIDDING DOCUMENTS:

- a. At any time prior to the deadline for submission of bids, IIT Bombay may, for any reason, whether on its own initiative or in response to the clarification requested by a prospective BIDDER may modify the bid document.
- b. All prospective BIDDERs who have downloaded the bidding document may visit the IIT Bombay website for amendments / modifications which will be binding on them.

5. DEADLINE FOR SUBMISSION OF BIDS:

a. Bids must be received by IIT Bombay before the due date and time at the address specified in the tender document. In the event of the specified date for the submission of bids being declared as a holiday for IIT Bombay, the bid-closing deadline will stand extended to the next working day up to the same time.

6. BID OPENING PROCESS:

- a. In case of two bid systems, the technical bid will be opened in the first instance in the presence of the department, Technical Evaluation Committee (TEC), MMD, representatives of the bidders at IIT Bombay.
- b. Price bids of only those bidders will be opened, whose bids are found technically

- qualified and also qualify in the site visit.
- c. Commercial Bids will be opened in the presence of the Technical Evaluation Committee (TEC), MMD, and representatives of the bidders. Date and Time of commercial bid opening shall be intimated to technically qualified bidders only.
- d. One authorized representative of each of the bidders would be permitted to be present at the time of opening of the bids.
- e. The authorized representative of bidders, present at the time of opening of the bids shall be required to sign an attendance register as proof of having attended the Technical/Commercial bid opening session.

7. LATE BIDS:

- a. IIT Bombay will not be responsible:
 - i. For delayed / late quotations submitted/sent by post courier etc.
 - For submission/delivery of quotations at the wrong places other than those mentioned in the tender.
 - iii. Any bid inadvertently received by IIT Bombay after the deadline i.e. due date & time for submission of bids, will not be accepted and returned.

8. SUPPLEMENTARY OFFER/MODIFICATION OF ORIGINAL BID:

a. Tender submitted against the above-mentioned tender shall not be returned in case the tender opening date is extended/ postponed. BIDDER desirous of modifying their offer/terms may submit their revised / supplementary offer (s) within the extended Tender Opening Date (TOD) by clearly stating the extent of updating done to the original bid. The purchaser reserves the right to open the original offer along with the revised bid.

9. CONFIDENTIALITY:

- a. Information relating to the evaluation of Bids, and recommendation of Contract award, shall not be disclosed to Bidders or any other person not officially concerned with such process until information on Contract award is communicated to all Bidders.
- b. Any attempt by a Bidder to influence the Purchaser in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- c. Notwithstanding, from the time of Bid opening to the time of Contract award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it shall do so in writing.

10. DEVIATION, RESERVATIONS AND OMISSIONS:

- a. During the evaluation of Bids, the following definitions apply:
 - i. "Deviation" is a departure from the requirements specified in the Bidding Documents:
 - ii. "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents;

And

iii. "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Documents.

11. CORRECTION OF ARITHMETICAL ERRORS:

- a. Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:
 - i. If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected:
 - ii. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - iii. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.
 - iv. Bidders shall be requested to accept the correction of arithmetical errors. Failure to accept the correction in accordance with the same shall result in the rejection of the Bid.

12.EVALUATION OF BID:

- a. IIT Bombay evaluates technical and Price acceptable offers on a landed net Price basis.
- b. Offer that deviates from the vital conditions (as illustrated below) of the tender shall be rejected:
 - i. Non- submission of complete offers.

- Receipt of offers after due date and time and or by email / fax (unless specified otherwise).
- iii. Receipt of offers in open conditions.
- c. In case any BIDDER is silent on any clause mentioned in this tender document, IIT Bombay shall construe that the BIDDER has accepted the clauses as per the invitation to tender. No further claim will be entertained.
- d. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.

13. PRICE BID (Commercial Bid):

Price bids of only those bidders will be opened, whose bids are found technically qualified and the following terms and conditions will be applicable:

- a. Quoting of Price (s): The price quoted should be in Indian Rupees.
- b. PRICE BID must be submitted in the enclosed Price Bid Form only.
- c. If the price is not quoted in the Price Bid Form only provided in the tender document then, IIT Bombay will reject the bid.
- d. If the supplier wishes to give pricing details, it may be attached in a separate sheet.
- e. The price must be inclusive of all taxes and charges.
- f. The service provider shall pay and bear all other liabilities, taxes and duties not specifically agreed by the Institute in the contract.
- g. In case of multiple options of the same product, bidders are requested to quote only one best option and not multiple options.
- h. The quantity mentioned in the tender can be increased or decreased to any extent depending upon the actual requirement.

14. CORRUPT & FRAUDULENT PRACTICES:

 a. IIT Bombay requires that bidders, suppliers, vendors, and consultants observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

The terms set forth below are defined as follows:

- i. "Corrupt practice "means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence the action of a public official in the procurement process or in contract execution;
- ii. "Fraudulent practice "means a misrepresentation or omission of facts in order to

- influence a procurement process or the execution of a contract;
- iii. "Collusive practice "means a scheme of arrangement between two or more bidders, designed to establish bid prices at artificial, non-competitive levels; and
- iv. "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- v. IIT Bombay will reject a proposal for an award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

15. TRANSFER AND SUBLETTING:

a. The seller shall not sublet, transfer, assign or otherwise part with the acceptance of the tender or any part thereof, either directly or indirectly, without the prior written permission of the Purchaser.

16. CANCELLATION OF TENDER:

- a. Notwithstanding anything specified in this tender document, Purchaser / IIT Bombay in his sole discretion, unconditionally and without assigning any reasons, reserves the rights:
 - i. To accept OR reject lowest tender or any other tender or all the tenders.
 - ii. To accept any tender in full or in part.
 - iii. To reject the tender offer not conforming to the tender's terms.
 - iv. To give purchase preference to Public Sector undertakings when applicable as per Govt. Policy/ Guidelines.
- b. Offer which deviates from the vital conditions (as illustrated below) of the tender shall be rejected:
 - i. non-submission of complete offers.
 - ii. Receipt of offers after due date and time and or by email / fax (unless specified otherwise).
- c. Receipt of offers in open conditions.
 - i. Conditional Tenders and Unsigned Tenders will be rejected.
 - ii. If the quality of product and service provided is not found satisfactory, IIT Bombay reserves the right to cancel or amend the contract.

SECTION 4 – SCOPE OF WORK

1. Nature and scope of work:

1a. Fire extinguisher installation or mounting

The fire extinguishers shall be installed in IIT Bombay campus. The campus means academics, residentials, hostels, a common area, a library, centers, workshops, a laboratory, the main building, and all other buildings, open or closed. The classification of area, hazard class, selection, and placement of fire extinguishers shall be in accordance with IS standard 2190:2010, IS15683:2018 and National Building Code 2016: Part IV or any other authority circular/ letter and amendments, as and when, to the above shall be applicable.

The procedure to install and management of a fire extinguisher will be as below

- i. Survey of the area/ building for the Classification of hazard and suitability
- ii. Selection of fire extinguisher type, rating, numbers, size and placement
- iii. Selection of location: it must be easily accessible, visible, no obstructive
- iv. Initial inspection of fire extinguisher and giving unique ID to Extinguisher.
- v. Shifting and placement at the location.
- vi. Entry and update of Register of Fire extinguisher as per the IS2190:2010

1b. Annual inspection tag, affixing of QR tag and signages

These shall prioritize visibility and accessibility while adhering to safety standards. QR tags are to know locations and inspection status. Annual inspection tags must be securely affixed to extinguishers with displaying inspection dates clearly. Signage (triangle type) for fire extinguishers should be prominently displayed to make it visible from a distance.

1b.1 Annual Inspection tag:

- i. Rectangular fire extinguisher tags, measuring 4.2 x 2.1 inch to record monthly inspections with red adjustable zip ties measuring 6 inch in length to hang tags.
- ii. Quality material: Tag shall be made of synthetic paper, with a hole on the top for connecting the tag through a lock shank, wire, string, or nylon tie wrap, which is resistant to tearing, waterproof, will not break, deform or shrink.
- iii. Display details of Tag: The front printed how to use a fire extinguisher and back side for month-wise inspection record for two years. The service record label can be marked with a permanent marker, but cannot be written with pencils or pens.

1b.2. QR Code

- i. The dynamic QR code for unique identification numbers, tracking of locations, and inspection of fire extinguishers is required. It should be designed in red colour with a black code for high visibility and easy identification.
- ii. Material: It should either be a sticker made of vinyl material with aggressive adhesive or a plastic bud with securely attached QR code stickers for fire extinguishers. It should withstand or be resilient against various environmental conditions, water, and potential abuse.

1b.3. Signage:

- i. The sign shall be noticeable in both directions and have a triangular shape. It will be printed on both sides and feature a flange with drill holes for mounting.
- ii. Thick 3mm ACP sheet to withstand abuse. The message of the sign shall be plotter cut to provide extra durability.
- iii. Each sign must be supplied with a mounting kit, consisting of 4 screws and washers for installation. All signs will include screws and adhesive tape for convenience.
- iv. The sign will have a triangle shape with a 74° bend to offer superior visibility.



Sample pics for tag, QR code and Signage

1c. Recharging and refilling of fire extinguishers

The listed quantity of fire extinguishers is distributed throughout the entire campus, encompassing various buildings and areas, and is subject to variation. The exact number of refills required will depend on factors such as the expiration date, pressure testing, and physical condition of each extinguisher.

A schedule of recharging shall be prepared by segregating the whole area into 12 zones to meet the requirement of the annual cyclic performance test as mentioned in IS2190:2010.

The frequency of refilling shall be maintained in the accordance with IS 2190:2010. Additionally, refilling may be required need-based or as and when informed for the empty

cylinders that are used for the purpose of training, in case of emergency, decrement in weight or pressure, or any other reason in consultation with FSS.

This includes the replacement of an expired, faulty, or empty fire extinguisher from the installed location with a valid one, shifting and transportation to an authorized filling or recharge facility, transportation of the filled one, and placement back at the location.

The 5%, or at least 1 from each lot, whichever is more, shall be used for the satisfactorily refill test. If it fails, the entire lot will be rejected, the bill cannot be processed, and it will be considered while renewing the contract.

Refilling shall encompass with the following extinguishing agent:

- Dry Powder extinguishers with 50% MAP content
- Co2 extinguishers with 99.9% purity for CO2
- Foam extinguishers containing 6% Aqueous Film-Forming Foam (AFFF) concentrate
- D-type extinguishers with the latest and most effective wet chemical filling agent

In cases where the previous agent differs from the specified one, the extinguisher will be refilled with the above-mentioned agents, and the label shall be updated accordingly.

1d. Supply of new fire extinguishers

The supply of new extinguishers shall be performed as and when asked or based on a survey and pre-approval from FSS authorized staff. The new fire extinguisher shall meet all applicable standards and statutory requirements. The certificate of conformity or test of the fire extinguisher(s) shall be provided and kept for record. The supply must be in accordance to the following extinguishing agents:

- Dry Powder extinguishers with 50% MAP content
- Co2 extinguishers with 99.9% purity for CO2
- Foam extinguishers containing 6% Aqueous Film-Forming Foam (AFFF) concentrate
- D-type extinguishers with the latest and most effective wet chemical filling agent

1e. supply and fitment of Spare parts/ Components

During inspection, if any component of the extinguisher is found damaged, it can be replaced with a new component, provided there is no compromise to the quality, safety, or purpose of the fire extinguishers. All the recommended items and consumables replaced during preventive maintenance, i.e., annual or quarterly, shall have a warranty for three (3) months. All spares must comply with related or applicable standards/ code/ norms.

1f. Supply Fire buckets, floor stands and fire point stands with canopy including their annual maintenance

The supply of fire buckets be performed as and when asked or based on survey and preapproval from FSS authorized staff. The new fire bucket shall meet all applicable standards and statutory requirements. All the requirements of IS 2546: 1974, latest and as amended from time to time shall be fulfilled.

The fire bucket stand with a canopy shall be supplied with arrangements to hang the four fire buckets and three fire extinguishers. The drawing and specifications shall be submitted to FSS, and upon approval, the same shall be supplied and mounted at IIT Bombay campus at an identified location.

The floor stand shall be supplied as per need or as informed by FSS. The drawing and specifications shall be submitted to FSS, and upon approval, the same shall be supplied and mounted at IIT Bombay campus at an identified location.

1g. Pressure / hydraulic testing

The pressure testing shall be performed as per the frequency by ensuring compliance with the applicable standards and statutory requirements. ABC/ Mechanical: Test pressure: 35 bar; working pressure: 15 bar; C02: 250 bar; 70 bar working pressure. The pressure testing certificate for all extinguishers shall be submitted to the office. For the CO2 type, the cylinder must meet the requirements of the Petroleum and Explosives Safety Organization (PESO).

1h. Scrap management

- i. Post-life or rejected fire extinguisher: The life of each fire extinguisher is listed in IS2190:2010. Post-life or rejected fire extinguishers shall be managed as per clause 14 of the applicable standard (IS2190:2010). These shall be cut centrally across the body and made unusable at the service provider facility. Cost of the metal scrap to be quoted.
- ii. Rejected fire buckets, floor stand, and fire bucket stand: The rejected fire buckets, floor stand, and fire bucket stand are a kind of metal scrap to be taken by the vendor and the cost of the metal scrap is to be quoted.

1i. Vendor Staff Key Responsibilities

The vendor will provide the following services to meet the requirements set by IITB, applicable BIS standards and statutory fire compliances by deploying their specified fire and safety staff:

- Conduct survey of buildings to identify the nature of the fire hazard, hazard class, type of fire risk, fire extinguisher (FE) size, quantity, and placement-Monthly
- ii. Selection of suitable fire extinguishers and mounting of fire extinguishers.

- iii. Monthly inspection of the fire extinguishers in the entire campus.
- iv. Preventive maintenance, cleaning, need-based painting, labelling, F.E. replacement, and fitment of spare of the fire extinguishers
- v. Refilling and hydraulic pressure testing of different types and capacities available at various locations of the complete IIT campus as per IS 2190 and Schedule of IITB.
- vi. Supply of new fire extinguishers, fire buckets, spares, bucket stands, and wall brackets and their mounting.
- vii. Mounting/ fixing/ placement of fire extinguishers, fire buckets, spares, bucket stands, and wall brackets.
- viii. Conducting monthly 8x fire training and 1x exit/ evacuation drills in the academics, residential, Hostels and other buildings within Campus.
- ix. Assistance in Annual 2x Full Mock drills.
- x. Any other related services, minor repairs of fire doors, Fire and Safety related infrastructure/ equipment/ devices, fixing of signage and display and/ or assigned work by FSS.

2. Brief nature of work but not limited to:

- 2a. **Fire Officer:** Lead the team of staff of vendor, make all necessary arrangements to complete the contract requirement to a satisfactory level including above mentioned responsibilities of vendor.
- 2b. **Junior Fire Officer**: Survey, selection, installation, inspection, maintenance of fire extinguishers and arrangements for pressure testing, conducting and assistance in training and drill inspection, and records.
- 2c. **Fire Steward:** Shifting and handling of fire extinguishers and related materials; Drilling of holes with a portable hand drill machine; fixing of displays, mounting of fire extinguishers, cleaning, etc. All necessary arrangements to complete the contract requirement to a satisfactory level.
- **3.** Inspection means a check conducted to ensure that the extinguisher is fully charged and operable, has not been activated or tampered with, and there is no obvious or physical damage to prevent its effective operation.
- 4. Maintenance means a thorough check of the extinguisher and identifying necessary repairs, replacements, or the need for hydraulic pressure testing. The intent is to provide maximum assurance that an extinguisher will operate effectively and safely and have no apparent defects.

- **5.** Refilling or recharging means the replacement of the extinguisher agents, including the expellant, as per 2190:2010 and/or related standards and any updated guidelines from the authority.
- **6.** Testing of fire extinguishers shall consist of a hydraulic pressure test and a performance test as per IS 2190:2010 and/or related standards.
- 7. The painting and labelling of fire extinguishers shall be done on a conditional basis.

Note: Points a and b: Reference should be made for the selection and mounting of fire extinguishers from **IS 2190:2010**, specifically Table 1, 2, 3, Clause 5.3 of IS 2190, and Annexure B: Recommendation for Installation of Fire Extinguishers, and National Building Code 2016, Part IV.

8. Applicability: All fire extinguishers, displays, Stand, buckets, bucket stands, brackets, etc., and their maintenance for the entire IIT Bombay Campus.

9. Periodicity of work:

- a. Monthly Inspection of all extinguishers.
- b. Monthly-maintenance shall be carried as per schedule in any zone of the institute. It shall be ensured that each fire extinguisher and related services get maintained on a quarter basis.
- c. Refilling and Hydraulic Pressure testing/performance testing shall be carried out at the time as per IS2190: 2010.
- d. Painting & labelling will be carried out on a conditional basis.
- e. All fire extinguishers shall be recharged after every use.
- f. Replacement of maintenance spares shall be done on a need basis.
- g. Supply of Fire extinguishers, buckets, bucket stands, etc. within 02 days of information.
- h. Arrangements and assistance in training (weekly once) and drills (monthly once) as per the schedule of the Fire and Safety Section, IIT Bombay.

10. Warranty period of spare parts and components:

All the spares/items/consumables replaced during preventive maintenance shall have a warranty for 3 (three) months. Reportedly, if these items become defective, the vendor is bound to replace them free of cost. The vendor shall submit a warranty certificate for each lot of fire extinguishers tested/refilled to the FSS.

11. Resources to be supplied by the vendor:

a. Maintenance, servicing, and recharging shall be performed by trained persons having the appropriate servicing manual(s) IS 2190:2010, other BIS standards, regulations, authority letters and codes.

- b. The proper types of tools, recharge materials, lubricants, and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguisher are to be provided by the vendor.
- c. Spares required for replacement on a need/conditional basis: The vendor has to supply and replace maintenance spares whenever required. The spares shall be replaced on a need/conditional basis during testing/maintenance. The renewals/replacements are required to be jointly certified by the in-charge of units and the firm's representative. The testing, maintenance, and replacement of items/components shall be done in the presence of the nominated supervisor.
- d. The vendor shall provide necessary tools, gauges & equipment for undertaking testing /maintenance by his service personnel.
- e. The vendor is required to arrange to provide a display in the form of stickers or cards on all the fire extinguishers indicating the quarterly, and annual maintenance done & due dates, refilling done & due dates, and dates of pressure testing.
- f. The register showing the contract/service staff engaged by the vendor.
- g. The vendor shall ensure to comply with all the employee and legal laws/requirements related to their manpower and staff.

12. Resources to be supplied by IIT Bombay:

IIT Bombay will facilitate entry-exit permission for the employees and their vehicles, subject to verification and if found reasonable.

13. Process:

a. Monthly Inspection

- The monthly inspection shall be performed by the vendor and records shall be maintained in the register as specified in 2190:2010. The extinguisher shall be pasted with an Inspection tag having details of the inspection date, due date, and inspected by.
- **b. Maintenance:** This shall include a thorough examination of the three main components of the extinguisher.
 - Mechanical parts.
 - Extinguisher agents.
 - Expelling means.

All fire extinguishers shall be properly tagged on completion of maintenance.

c. Preventive maintenance:

Maintenance and Testing of all fire extinguishers in respect of mechanical parts,

extinguishing media, and expelling means should be carried out by properly trained and competent personnel at a set frequency to ensure that these are in their proper condition and have not been accidentally discharged or lost pressure or suffered damage.

The following procedure shall be followed for maintenance.

- i. Clean the exterior of the extinguisher, polish the painted portion with wax polish, the brass/ gun metal parts with metal polish, chromium-plated parts with silver polish and plastic components to be thoroughly washed with the soap solution and sun-dried.
- ii. Check the nozzle outlet and vent holes as well as the threaded portion of the cap for clogging, and check that the plunger is clean and moving freely.
- iii. Ensure that the cap washer is intact and also grease the threads of the cap, plunger, etc., and wipe clean.
- iv. Make sure that the extinguisher is in proper condition and is not accidentally discharged. In the case of a stored pressure extinguisher, the pressure gauge is to be checked for correct pressure.
- v. Check all the components of the extinguisher as per the maintenance checklist given for each type of extinguisher.
- vi. Maintenance shall be carried out by the manufacturer or his authorized agent or professional firemen.
- vii. All the fire extinguishers shall be subjected to a thorough inspection at the commencement of the contract. An advantage should be taken of this inspection to train personnel in the operation of extinguishers. The inspection should consist of the procedure laid down in IS2190:2010.
- viii. In the first instance, by rotation if the extinguisher is due for discharge test, after ensuring that the cap and components are fully tightened, nozzles, and vent holes are free of any dust or dirt, operate the extinguisher for testing the performance.
- ix. In case the extinguisher is not falling due for discharge test as per the schedule of records, empty the contents of the extinguisher in clean buckets and remove all the components. In case the extinguisher is operated, after operation clean the extinguisher and remove all components. In case it fails in the discharge test, the procedure given in IS standard 2190:2010 is to be followed.
- x. Examine the inside surface of the cylinder as well as the surface of the containers for the condition of plating, for any rust formation, etc.
- xi. If there are visible rust marks, wash the cylinder thoroughly with clean water,

- dry it, fill it with water for 24 hours, and observe the surface again. If there are still signs of rust formation and plating thickness is not adequate, the surface should be freshly plated or phosphate as the case may be.
- xii. The above procedures are for water-type gas pressure, foam, and dry powder-type fire extinguishers. In the case of CO2 and clean agent extinguishers, if the cylinders are not due for recharging, then check the weight of the contents and the pressure of the container with its contents. If the same is in order as per the monthly checklist, then the contents need not be discharged. If, however, these extinguishers are due for an operational test, then after the operational test, if facilities are available for pressure testing and recharging, the cylinders can be pressure tested and re-charged at the site after checking up the exterior and other components, or alternately should be sent to the manufacturer or other competent agency for pressure testing and re- charging.
- xiii. Examine the external surface of the fire extinguisher in respect of painting and if there is damage to the painting, the surface should be re-painted as per the requirements of relevant Indian Standards.
- xiv. Check up the condition of the label and if it is not in order ensure to replace it with the correct label.
- xv. Examine the cylinder and its components in detail apart from functional point of view for any physical damage, cracks, dents, etc. In case of any doubt, such components, if those are pressure parts, should be subjected to a hydraulic pressure test. If the damage is beyond repair, the part should be replaced by a correct component.
- xvi. This inspection should be combined with the testing requirements for the operational test and hydraulic pressure test.
- xvii. The extinguishers after inspection should be refilled immediately and the date of inspection and refilling should be indelibly marked on the extinguishers and recorded in the register of fire extinguishers.

d. Testing of fire extinguishers:

The testing of fire extinguishers consists of a hydraulic pressure test and a performance test. These tests shall be carried out as per the norms and frequency set out in the IS standards and codes.

e. Hydraulic Pressure Test:

The pressure test of all types of extinguishers should be carried out as per the Schedule for hydraulic pressure testing of fire extinguishers mentioned under relevant IS standards.

i. If any of the extinguishers fails in the hydraulic pressure test, then it should

- be repaired and after repairs, the extinguisher should be subjected to pressure testing.
- ii. If it passes the test as per the requirements mentioned above, the extinguisher shall be retained, and,
- iii. If it fails, the extinguisher should be rejected and condemned as per the procedure and after recording the same in the register of fire extinguishers and replaced with new fire extinguishers.
- iv. Based on the life of the extinguisher, the extinguishers shall not be used after the expiry of its life.

f. Pressure Test Procedure and Safety Precautions:

- All valves and internal parts shall be removed and the extinguisher should be emptied.
- ii. All traces of extinguishing materials like dry powder/mechanical foam should be removed from inside the shell before filling with water.
- iii. In the case of externally mounted gas cartridges/containers for higher capacity dry powder extinguishers, the cartridge/container must be removed and the shell opening be suitably plugged.
- iv. The hose of the hydrostatic test pump is then attached to the flexible connection to the discharge nozzle, hose assembly, or test fitting, as the case may be.
- v. The extinguisher should then be placed in a suitable protective test cage or behind a protective shield/barrier before applying the test pressure.
- vi. The cap or the test fitting, as the case may be, must be tightened slowly while the water supply remains open. When all the entrapped air within the shell has been bled off, and water emerges the cap/test fitting must be tightened fully.
- vii. Pressure is then applied slowly so that the test pressure is reached slowly within 1 min, and maintained for the duration of 2.5 min. Observation should be made about distortion or leakage of the extinguisher body; if any.
- viii. After hydraulic testing, all traces of water and moisture must be removed from dry powder and stored pressure extinguishers preferably by use of a suitable cylinder dryer taking care that the temperature within the shell does not exceed 65°C.

g. Operating performance requirements including Discharge Test:

The IS 15683:2018 shall be complied with for the performance and construction specifications.

- i. All extinguishers installed in a premise irrespective of being used in a live fire condition shall be subjected to an operational test.
- ii. The operational test should be carried out in such a frequency, keeping in view the frequency given in IS standard for the particular type of the extinguisher, in an annually cyclic manner so that all the extinguishers installed in a premise are subjected to discharge test.
- iii. If more than 10 percent of the extinguishers, subjected to discharge test fail during the testing, then all the extinguishers installed in the premises shall be subjected to the discharge test.

h. Gas Cartridge:

- In the case of gas cartridges, if there is a loss of more than 10 percent of the original mass, these should be sent for recharging and replaced with a fresh charge.
- ii. At the time of recharging the cartridge, the cartridge should be tested for hydrostatic test according to the provisions of IS 4947 and should be re-used only subject to passing of requirement.

i. Maintenance of records:

The records of maintenance, inspection, and testing of all fire extinguishers including their operational history shall be maintained in a register as per IS2190:2010 and its amendments.

14. Recharging:

a. General

- i. All rechargeable-type fire extinguishers shall be recharged after any use or as indicated by an inspection or when performing maintenance. Extinguishers that are out of service for maintenance or recharging should be replaced by extinguisher(s) having the same class and at least equal rating. In no case, extinguishers of other facility should be withdrawn for this purpose.
- ii. When performing or recharging, the recommendations of the manufacturer shall be followed.
- iii. The amount of recharge agent shall be verified by weighing. The recharged gross mass shall be the same as the gross mass that is marked on the label. For those fire extinguishers that do not have the gross mass marked on the label, a permanent label that indicates the gross mass shall be affixed to the cylinder. The label containing the gross weight shall be a durable material of a pressure-sensitive, self-destruct type.

- b. **Conversion of Fire Extinguisher Types**: No fire extinguisher shall be converted from one type to another, or shall any fire extinguisher be converted to use a different type of extinguishing agent. Fire extinguishers shall not be used for any other purpose than that of a fire extinguisher.
- c. **Leak Test**: After recharging, a leak test shall be performed on stored-pressure and self-expelling types of fire extinguishers.

d. Frequency

- Pump tank water and pump tank calcium chloride-based anti-freeze types of fire extinguishers shall be recharged with new chemicals or water, as applicable.
- ii. **Wetting Agent**: The agent in stored-pressure wetting agent fire extinguishers shall be replaced annually. Only the agent specified on the nameplate shall be used for recharging. The use of water or other agents is prohibited.
- iii. **AFFF and FFFP**: The premixed agent in liquid charge-type AFFF (aqueous film-forming foam) and FFFP (film-forming fluoro-protein foam) fire extinguishers shall be replaced at least once every year.

e. Procedures:

Recharge Agents: Only those agents specified on the nameplate or agents proven to have equal chemical composition, physical characteristics, and fire-extinguishing capabilities shall be used. Agents listed specifically for use with that fire extinguisher shall be considered to meet these requirements.

- i. **Mixing of Dry Chemicals**: Multipurpose BC or ABC dry chemicals shall not be mixed with alkaline-based dry chemicals.
- ii. **Topping Off**: The remaining dry chemical in a discharged fire extinguisher shall be permitted to be re-used, provided that it is thoroughly checked for the proper type, contamination, and condition. Dry chemicals found to be of the wrong type, or contaminated, shall not be re-used.
- iii. **Dry Chemical Agent Re-use**: Fire extinguishers removed after 5 years for maintenance or hydrostatic testing shall be emptied. The dry chemical agent shall be permitted to be re-used, provided a closed recovery system is used and the agent is stored in a sealed container to prevent contamination. Prior to re-use, the dry chemical shall be thoroughly checked for the proper type, contamination, and condition. Where doubt exists with respect to the type, contamination, or condition of the dry chemical, the dry chemical shall be discarded.
- iv. **Dry Powder**: Pails or drums containing dry powder agents for scoop or shovel application for use on metal fires shall be kept full and covered at all

times. The dry powder shall be replaced if found damp.

- v. **Removal of Moisture**: For all non-water types of fire extinguishers, any moisture shall be removed before recharging.
- vi. **Halogenated Agent**: Halogenated agent fire extinguishers shall be charged only with the proper type and weight of agent as specified on the nameplate.
- vii. Halogenated Agent Re-use: The removal of Halon 1211 from fire extinguishers shall be done only using a listed Halon closed recovery system. The removal of agents from other halogenated agent fire extinguishers shall be done only using a closed recovery system. The fire extinguisher shall be examined internally for contamination or corrosion, or both. The halogenated agent retained in the system recovery cylinder shall be re-used only, if no evidence of internal contamination is observed in the fire extinguisher cylinder. Halogenated agents removed from fire extinguishers that exhibit evidence of internal contamination or corrosion shall be processed with the fire extinguisher manufacturer 's instructions.
- viii. **Carbon Dioxide**: The vapor phase of carbon dioxide shall be not less than 99.5 percent carbon dioxide. The water content of the liquid phase shall be not more than 0.01 percent by weight [–30°F (-34.4°C) dew point]. The oil content of the carbon dioxide shall not exceed 10 ppm by weight.
- ix. **Water Types**: When stored-pressure fire extinguishers are recharged, overfilling will result in improper discharge. The proper amount of liquid agent shall be determined by using one of the following:
 - a) Exact measurement by weight or Exact measurement in volume;
 - b) An anti-overfill tube and A fill mark on the fire extinguisher shell, if provided.
- x. **Wet Chemical Agent Re-use**: These agents are not to be re-used. If a wet chemical extinguisher is partially discharged, all remaining wet chemicals shall be discarded. The wet chemical agent shall be discarded and replaced at the hydrostatic test interval.

xi. Recharge Record Keeping

Each fire extinguisher shall have a tag or label securely attached that indicates the month and year recharging was performed and that identifies the person performing the service. A 'Verification of Service' (maintenance or recharging) collar shall also be attached to the extinguisher.

 a) Liquefied gas, halogenated agent, and carbon dioxide extinguishers that have been recharged without valve removal shall not be required to have a `Verification of Service' collar installed following recharge. b) Cartridge and cylinder-operated extinguishers shall not be required to have a 'Verification of Service' collar installed.

xii. Spare Refills

A minimum of 10 percent (of the number of various types of extinguishers on charge) of the replacement charges/refills should always be available in stock so that discharged extinguishers can be recharged and brought into use promptly

15. General Safety Precautions for Maintenance

a. While opening any extinguisher for maintenance,

- i. Ensure that there is no residual pressure in any hose and/or nozzle assembly;
- ii. unscrew the cap or valve assembly slowly for two or three turns only, to allow any residual pressure to escape via the vent holes, and do not unscrew it further until all pressure is released. keep away the head and body to avoid injuries;
- iii. do not depend on pressure-indicating devices like gauges (in the cases of stored pressure type extinguishers) to verify whether the container is under pressure or not, as they could malfunction;
- iv. if pressure is not being released after unscrewing the cap or valve assembly two or three turns, then do not unscrew it further without taking appropriate safety measures; sudden release of pressure may eject parts, cap assembly, or the contents of the extinguisher. The use of suitable clamping arrangements and appropriate personal protection is advisable;
- v. under no circumstances should the valves of carbon dioxide or stored pressure type extinguisher of gas cartridges/ containers be attempted to be removed under filled conditions; and
- vi. At all times when attempting to remove parts from the extinguisher at the time of inspection/ maintenance, persons should ensure that they are clear of any parts which may be ejected.

b. Other Safety Guidelines

- Dry powder extinguisher should be opened only in the driest available conditions and for the minimum time necessary for examination, to minimize the effect of atmospheric moisture on the powder. Moisture causes caking of the powder.
- ii. It is even more important that mixing or cross-contamination of different types (BC/ABC/ D) of powder be avoided as it may cause a chemical reaction resulting in a dangerous pressure build-up in the container. This reaction

- may become apparent only after a few weeks.
- iii. All sealing components should be cleaned and properly lubricated to prevent leakage after recharge.
- iv. Check pressure-indicating devices to ascertain that it give proper readings.
- v. Never connect a stored pressure extinguisher to be charged directly to the high-pressure source. Connecting directly to the high-pressure source could cause damage or even rupture of the container and may result in injury.
- vi. Only those gas cartridges which will suit the particular type and capacity of the extinguisher should be used. Do not use higher capacities than recommended.
- vii. Certain recharging materials deteriorate with age, exposure to excessive temperature and moisture.
- viii. Storage of recharge materials for long periods should be avoided.
- ix. Normal workshop compressors deliver air with high moisture content. Moisture traps will only remove the moisture partly and may lead to the caking of powder, hydrolysis of halogenated agents, clogging of pressure gauges, and internal corrosion. Blowers/dryers should be used to clean hose and hose fittings.
- x. On all higher capacity dry powder and carbon dioxide extinguishers equipped with a shut-off nozzle, the hose (without the nozzle) should be removed and tested annually.

c. Guidelines for the Evaluation of Damage and Corrosion

- i. It is difficult to precisely define the limits to the extent of damage or corrosion that makes an extinguisher 'unsafe' or 'unfit' for service. Evaluation largely depends on the judgment of the competent person based on experience. However, some typical examples are cited below for guidance.
- ii. Typical conditions indicating that an extinguisher is unsafe for use Potentially the most serious hazard of defective extinguishers is the sudden uncontrolled release of pressure or ejection of parts. It could be caused due to any one of the following causes:
 - a) Corrosion, wear and tear or damage to threads of any pressure retaining part;
 - b) Corrosion of welds; and
 - c) Extensive general corrosion or severe pitting.

- iii. Typical conditions indicating that an extinguisher is unfit for use because it is unlikely to operate correctly or because damage or corrosion is likely to become worse and make the extinguisher unsafe for use. Some of such conditions are:
 - a) Bubbling or separation from the metal of a plastic lining/powder coating;
 - b) Corrosion of the metal body under a plastic lining/powder coating;
 - c) Corrosion of the metal body under a zinc of tin/lead lining; and
 - d) Corrosion, wear or damage to any part of the operating or control mechanism.
- iv. General conditions not affecting function or safety

An extinguisher shall remain safe and functional under the following typical conditions:

- a) Staining or discoloration of lining or dip tubes;
- b) External blemishes or slight scratches or dents;
- c) Slight rusting of parts not subject to pressure; and
- d) The presence of corrosion products from any metal lining (typically white salts of zinc, or tin and lead).

Note: Comply with requirements of IS 2190:2010 or other applicable standard/ statutory requirements for the maintenance of specific type of Fire extinguisher.

SECTION 5: GENERAL TERMS AND CONDITIONS OF CONTRACT

I. GENERAL CONDITIONS:

- 1. Vendor will not be allowed to sublet the work to the sub-vendor, if found so, the said work will be terminated and the vendor will be blacklisted with intimation to other Organizations.
- 2. The vendor should complete all daily, weekly, monthly, and once in two months/ three months, six months, annual' work as per the scope of work and compliance to the IS standard and authority norms for the contract period.
- 3. Any liability/Penalty arising out of complaint from the worker or as directed by the authority, BMC office, Fire department officer or court or any other Govt., Semi-Govt. office shall be deducted from the bill/S.D./E.M.D. amount of vendor.
- 4. Workers engaged by the vendor to complete work should attend to the duty in uniform with their identity card. The vendor can obtain temporary gate passes for their workers from the security office of this Institute. & all workers have to produce them at all gates to security, workers without gate pass will not be allowed entry in IIT Bombay campus shall not be allowed entry in IIT Bombay campus.
- 5. All safety & security rules, regulations, and practices prevalent in the Institute should be strictly followed by the vendor and vendor workers.
- 6. The vendor should make necessary arrangements for the welfare and health of their workers at his own cost.
- 7. The vendor will nominate a representative or supervisor in charge who will maintain liaison with the IIT Bombay representative regarding carrying out work, access-egress, training, etc.
- 8. IIT reserves its rights to entertain the complaints related to the compliance, to investigate the matters, and if any claims are found to be correct, the said amount will be adjusted through bills
- The vendor shall be responsible for the recruitment/engagement, discharge, and payment of persons engaged by him and the completion of all work as per the scope of work of this contract.
- 10. It will be the whole responsibility of the vendor to supervise the jobs carried out by their workers as per the schedule & scope of work given by Fire and Safety Section (FSS).
- 11. In the event of failure to carry out the work assigned under the contract to the satisfaction of IIT Bombay. Performance will be evaluated by the performance monitoring committee & necessary deduction will be done from performance deposit. The Institute reserves the right to get the work done through alternate sources at the cost and risk of the vendor. The necessary Security deposit will be forfeited and the same contract will be terminated and it may be awarded to another vendor.

- 12. The vendor shall assure the institute against any actions, awards, proceedings, claims, and demands that may be made against it due to any act of negligence, default, etc. made by the vendor or his workers during the contract period.
- 13. The Institute reserves the right to terminate the contract with advance termination notice of one month for non-compliance/violation/contravention of any of the provisions of worker laws, non-implementation of court orders, orders from worker law authorities received from time to time, and terms & conditions of work order and agreement, in such case, EMD, & security deposit will be forfeited.
- 14. Reporting about the status of the job on a day-to-day basis shall have to be ensured by your personnel to the Fire and Safety Section (FSS) representative.
- 15. The working hours of workers should be set to carry out various jobs as per general shift and the working hours of workers should not exceed eight hours in a day to complete given work as per the scope of work and as per directions of government from time to time.
- 16. If the vendor wants to withdraw the contract due to inaccessibility, due to personal reasons, or local issues, before the contract expiring date, at that time, the vendor should give a written request at least three months in advance to the Fire and Safety Section (FSS). After withdrawing the contract, security deposit amount will not be refunded to the vendor.
- 17. The vendor shall produce a checklist to make all daily, weekly, monthly, and once in two months/ three months/six months, scheduled one week in advance before starting the new month to carry out the work as per the scope of work.
- 18. Work that is not attended to by the vendor as per the scope of work, the said amount of unattended work will be deducted from his monthly bill.
- 19. Electricity will be provided free of cost by the Institute for mounting the fire extinguisher and other displays. However, tools, cables, extension boards and all other related things are arranged by vendor only. Vendor should use electrical points with safety, if any damage takes place to that point, then the amount of it will be recovered from the bill of the vendor.
- 20. The vendor shall be responsible for any damage to the Institute property due to negligence of the agency and the cost of all such damages will be recovered from the bills of the vendor.
- 21. The vendor is suggested to engage a sufficient/desired number of manpower including relievers for the same. All direct or indirect costs and obligations pertaining to the employment of specialized manpower will be borne by the vendor. The contract staff should follow the instructions given by the Fire and Safety Section, Office of Dean (IPS), IIT Bombay.
- 22. The renewal of the Fire Extinguisher contract to the same agency may be done at the end of the year, for the further period of two years and it will be extended on same prevailing contract rules, terms, conditions, and rates, after evaluating the performance of vendor by Fire and Safety Section (FSS) tender committee and the end users.
- 23. The successful bidder should provide the CV of the employee, and after approval from IIT Bombay will deploy them.

24. Successful vendor has to do the Police verification of all their workers who will work under this contract in IIT Bombay and submit a report to Fire and Safety Section (FSS) within a month of starting of contract.

25. Staff details

Type	Minimum qualification and experience required	Brief Nature of work, not limited to	Minimum No. to be deployed for the smooth work	Non- employment Penalty*
Fire officer	Degree or Diploma in engineering and any diploma in fire and safety from state approved technical institute with minimum 5 years of experience in related field. He shall act lead of the team.	Survey, selection, installation, inspection, maintenance of fire extinguishers and arrangements for pressure testing, conducting and assistance in training and drill inspection, and records. All necessary arrangements to complete the contract requirement to the satisfactory level.	01	Rs. 3000/- per day
Junior fire officer	Degree or Diploma in engineering and any diploma in fire and safety from state approved technical institute with minimum 3 years of experience in related field.	Survey, selection, installation, inspection, maintenance of fire extinguishers and arrangements for pressure testing, conducting and assistance in training and drill inspection, and records. All necessary arrangements to complete the contract requirement to the satisfactory level.	03	Rs. 3000/- per day

Fire	10th Pass having	Shifting and handling of		
Steward	ability to understand and execute as per the given instructions.	fire extinguishers and related materials; Drilling of holes with a portable hand drill machine; fixing of displays, mounting of fire extinguishers, cleaning, etc	04	Rs. 2000/- per day

^{*} if vendor fails to appoint their staff within 30 days of award of tender.

- 26.IIT Bombay will not entertain any worker's issues. The vendor must solve all worker's issues related to contract terms & conditions and as per the institute policy.
- 27. Unforeseen scenarios need to be taken care of by the vendor.
- 28. In the event of any dispute over this contract, IIT Bombay's decision shall be final and binding on the vendor.
- 29. The vendor should be ready to attend any other type of FEs and at any other locations that are not mentioned in the scope of the work as per the instructions of the Fire and Safety Section, Office of Dean (IPS), IIT Bombay.
- 30. The contract staff should regularly monitor the due date of monthly inspections, quarterly maintenance, high-pressure testing, and refilling of the Fire Extinguishers fitted on campus and shall attend to them on time.
- 31. The vendor shall furnish complete details of the personnel to be deployed along with photocopies of Aadhar, medical, police verification, etc. The name list of all the employees shall be submitted before starting the work and as per any updates.
- 32. The vendor should issue identity badges to all his employees engaged to carry out the work, including the supervisor. These identity badges should be carried so that they can be identified by IIT Bombay authorities. The identity badges should be worn by vendor employees while performing the work.
- 33. The vendor should ensure that the dirt, litter, and other filth collected after the work is dumped only at the designated place, as advised by FSS.
- 34. As per the provisions of minimum wages Act 1948, if you are engaging labourers then, please inform to the undersigned and send a copy of labourers engaged in work to Regional Labour Commissioner, Shram Raksha Bhavan, Shivshrushti Road, Sion, Mumbai-400 022.

II. OTHER TERMS AND CONDITIONS:

1. AWARD OF CONTRACT:

- a. Only one technically qualified L1 bidder shall be selected for the contract.
- Evaluation shall be carried out as per quantities and prices under Section 6 Price Bid.
- c. The qualified bidder will be abiding by all the Terms & Conditions of the Tender Document.
- d. The qualified bidder will be empanelled initially for the period of one year and maybe extended further for two years if performance is found satisfactory by the Committee.
- e. The services of the empanelled service provider will be reviewed by committee during contract period and IIT Bombay reserves right to add or delete service provider in rate contract based on performance, if necessary, without intimation.
- f. If more than one BIDDER happens to quote the same lowest price, IIT Bombay reserves the right to award the contract to more than one BIDDER or any BIDDER.
- g. If the service provided is not found satisfactory, IIT Bombay reserves the right to cancel or amend the contract. We may remove or add any service providers during the contract without prior notice.

2. TERMS OF PAYMENT:

- a. No advance payment bills will be made under any circumstances.
- b. Monthly bill will be paid based on supplies and services rendered. Amount of short manpower & material, incomplete work, and penalty if any will be deducted from the monthly bill.
- c. The final bill shall be submitted by the vendor in the same manner as specified in interim bills within three months of the physical completion of the work. No further claims shall be made by the vendor after submission of the final bill and these shall be deemed to have been waived and extinguished.

3. CONDUCT OF VENDOR'S STAFF:

- a. The vendor shall not permit anyone except his authorized staff in IIT campus.
- b. The staff deployed by the vendor shall be suitably clothed (uniform) in clean, tidy and orderly manner while on duty.
- c. The vendor and his employees shall be courteous in their dealing with the IIT Bombay community and authorities.

- d. No contract staff shall be permitted to stay back in IIT Bombay premises after the duty hours.
- e. The vendor shall submit the following documents to FSS or others as required by the Security section of IIT Bombay. Pertaining to staff before commencement of the contract and shall renew the documents as and when the staff composition is renewed.
 - i. Name and father name of the staff along with an Aadhar card.
 - ii. Identity cards shall be issued by the vendor at his own cost carrying a passport size photograph of the staff, their signature, a unique identification number, their name, residential address, blood group etc. The identity card so prepared shall be submitted to the FSS.
 - iii. IIT Bombay security section will also provide ID card which is mandatory to be carried while entry and stay in the campus. Id cards shall be shown as & when asked by any authority or IIT community.

4. CONDITIONS OF WORKING IN RESTRICTED AREAS/SECURITY

The following conditions shall be followed for working within the restricted areas and for security.

- a. Permission to enter the restricted areas at the time of tender submission can be obtained through the FSS and relevant authority.
- b. The vendor, his agents, representatives, workmen, etc., and his materials, carts, trucks, or other means of transport, etc., will be allowed to enter through and leave from only main gate.
- c. The vendor's authorized representatives, if required, are to be present at the places of entry and exit for the purpose of identifying his carts, trucks, etc. to the personnel in charge of the security of the restricted area.
- d. The vendor, his representatives, the site in charge, overseers, and other regular staff are individually required to be in possession of identity cards or temporary entry permits, which will be issued by the security section on the recommendation of the FSS. The workers engaged in the execution of the work; the following procedures shall be followed:
 - i. The vendor employee who will be engaged by the vendor shall be allowed to enter the IIT premises through the gate on the production of a daily attendance card, which will be marked by the authorized representative of the vendor before entering the security gate.
 - ii. The security officer shall have authority not to allow any vendor employee who does not possess the marked mustered roll cards.

- iii. The vendor employee working and moving on campus should always carry the muster roll card with them for identification.
- iv. The vendor shall be responsible for the conduct and action of his workmen, agent, or representative at all times.
- e. Any vehicle and materials that are moved or removed from the site of work and are required to be taken out of IIT campus should follow the following procedures:
 - i. The vendor shall submit in writing to the FSS the details of the materials to be taken out or removed, including those that are rejected, etc.
 - ii. This application shall be endorsed by the authorized representatives.
 - iii. The materials shall only be allowed to go out of IIT campus after the counter signature of the security officer is checked at the gate.
 - iv. No materials or tools will be allowed to be brought on holidays, Saturdays, and Sundays inside the campus.
 - v. vendors can bring the materials and tools between 0900 hours and 1700 hours on any working day (Monday to Friday).
- f. All persons and transport may be searched at the gate and within the restricted or any area for as many times as the gate is used for entry or exit.
- g. **Post** works. the vendor, his agents, representatives, or workmen, etc., may not be allowed any access to the restricted area except for attending to any job-specific task assigned to him by FSS, the concerned, or his representatives.
- h. The vendor, his agents, representatives, workmen, etc. shall strictly observe the orders pertaining to fire and safety precautions prevailing within the restricted area.

5. Work diary and registers:

The record and documentation shall be maintained and made available as when asked.

6. Earnest Money Deposit:

- a. Earnest Money Deposit (EMD) of Rs. 1,00,000/- (Rs. One Lakh Only) in the form of Demand Draft in the favour of 'The Registrar, IIT Bombay' payable at Mumbai to be submitted in Technical Bid. Failing which, the submitted bid will be rejected.
- b. No interest shall be payable by the BUYER to the BIDDER on Earnest Money for the period of its currency.
- c. EMD of unsuccessful bidders will be returned within 30 days after the award of the contract.
- d. EMD of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or derogates from the tender in any respect within the period of validity of its tender.

Further, if the successful tenderer fails to furnish the required performance security within the specified period, its EMD will be forfeited.

7. Performance Bank guarantee:

- a. Performance Guarantee Bond is mandatory.
- b. Successful tenderer/ bidder should submit a performance guarantee as prescribed above to be sent to Deputy Registrar, Materials Management Division, IIT Bombay along with order acknowledgment. The PBG is to be furnished in the form of a bank guarantee as per Format 1 for an amount of Rs.2,00,000/- (Two Lakhs only)
- c. The Performance Guarantee should be established in favor of "The Registrar, IIT Bombay". PBG is to be established through any of the National/ Scheduled Commercial Banks (whether situated at Mumbai or outstation) with a clause to enforce the same on their local branch of Mumbai.
- d. Performance Guarantee Bond shall be for the due and faithful performance of the contract and shall remain binding, notwithstanding such variations, alterations for extensions of time as may be made, given, conceded or agreed to between the successful tenderer and the purchaser under the terms & conditions of acceptance to the tender.
- e. The successful tenderer is entirely responsible for the due performance of the contract in letter and spirit and all other documents referred to in the acceptance of tenders.
- f. The PBG shall be valid for a period of 1 year plus 60 days or till warranty period whichever is later
- g. If the successful bidder fails to submit the Performance Guarantee Bond along with Order Acknowledgement then the purchase order/contract will be cancelled.
- h. No interest shall be payable by the buyer to the Bidder on PBG.

8. **PENALTY:**

- a. In the event of any breach of any of the terms & conditions of the contract or the bidder neglects, delays or fails to perform the contract, IIT Bombay shall levy and recover the penalty subject to maximum of 5% of total monthly bill and IIT Bombay also reserves rights to forfeit the Security Deposit.
- b. A penalty of Rs.1000/- per case shall be imposed on the vendor and this amount will be deducted from the vendor's monthly payment, in case of
 - i. non-adherence or failure to attend the inspection, maintenance, refilling, pressure testing or any related schedules.
 - ii. Any deviation or non-compliance in the scope of work.

- iii. Any deviation or improper maintenance/ refilling/ testing.
- iv. Use of sub-standard materials/ poor workmanship/ improper handling of Fire Extinguishers.
- v. Any discrepancies noticed.
- vi. Non-compliance to labour laws including wages, insurance, ld cards.
- vii. Any miss-conduct or inappropriate behavior of a vendor employee.
- viii. Unauthorized access.

9. FORCE MAJEURE:

Force Majeure will be accepted on adequate proof thereof.

10. LEGAL MATTER:

- a. Jurisdiction of Mumbai Courts only.
- b. In the event of any dispute over this contract, IIT Bombay's decision shall be final and binding.

11. FURNISHING FRAUDULENT INFORMATION/ DOCUMENT

a. If it is found that a bidder has furnished fraudulent document/information, the bid security/performance security (wherever applicable) shall be forfeited and the bidder/vendor will be debarred for a period of 3 (three) years from the date of detection of such fraudulent activity, besides the legal action. In case of major and serious fraud, the period of debarment may be enhanced.

SECTION 6: PRICE BID

Due date: 12th April 2024

Tender No. MMD/FSS/SC/2024-25

BOQ

<u> </u>						
Item 1: Services						
Sr. Type Qu	antity	Unit	Rate per unit	Other charg es	Tax	Total
The vendor will provide the following services to meet the requirements set by IITB and applicable BIS standards by deploying their fire and safety staff: a) Conduct a survey of all buildings to identify the nature of the fire hazard, hazard class, type of fire risk, fire extinguisher (FE) size, Estimated Quantity, and placement-Monthly b) Selection of suitable fire extinguishers and mounting of fire extinguishers in the campus area. c) Monthly inspection of all fire extinguishers in the entire campus. d) Preventive maintenance, cleaning, need-based painting, labelling, F.E. replacement, and fitment of spares of the fire extinguishers e) Refilling and hydraulic pressure testing of different types and capacities available at IIT campus as per the BIS Standards and/ or Schedule given by FSS. f) Supply of new fire extinguishers, fire buckets, spares, bucket stands, and wall brackets. g) Mounting/ casting/ placement of fire extinguishers, fire buckets, spares, bucket stands, and wall brackets. h) Conducting monthly 8x fire training for IIT Community in academics, residential, Hostels and	12	Month				

other buildings/ areas of IITB						
Campus						
i) Monthly 1x exit/ evacuation drills						
in the academics, residential,						
Hostels and other buildings within						
Campus.						
j) Assistance in Annual 2x Full Mock						
drills.						
k) Any other related services, minor						
repairs of fire doors and/ or						
assigned work by FSS.						
Total (T1)						

NOTE: Check Section 5: Terms & Conditions of Contract for Staff Details. The services set the requirements of a dedicated stationed team.

Item 2:	Item 2: Tag and Display								
Sr. No.	Descripti on of item	Estimated Quantity	Unit	Rate per unit	Other charges	Tax	Total		
2.1	Annual Inspection tag.	2065	No.						
2.2	QR code for identity and location Tracking	2065	No.						
2.3	Display of FE signages	2065	No.						
Total (T2)									
Note: Check 1b of work scope for details.									

Item No. 3: Recharging and refilling of fire extinguishers (mixed 25% cartridge and 75% non-cartridge) Sr. Fire Extinguisher **Estimated** Rate Other Unit Tax Total No. Type Quantity per unit charges DCP Type, 2kg 3.1 No. 32 3.2 DCP Type, 4kg 60 No. 3.3 DCP Type, 5kg No. 60 DCP Type, 6kg No. 3.4 840 DCP Type, 9kg 3.5 75 No. DCP Type, 25kg 3.6 5 No. (wheeled)

3.7	DCP Type, 50kg (wheeled)	5	No.				
3.8	CO ₂ Type, 2kg	45	No.				
3.9	CO ₂ Type, 3.2kg	140	No.				
3.1	CO ₂ Type, 4.5kg	137	No.				
3.11	CO ₂ Type, 9kg	38	No.				
3.12	CO ₂ Type, 22.5kg (wheeled)	3	No.				
3.13	Foam, 9liter	80	No.				
3.14	Water Type 9liter	50	No.				
3.14	K/ F type, 9liter	10	No.				
Total (T3)							

Note: Check 1C of work scope for details.

Item 4	: Supply of new fire exting	guishers (sto	red P	ressure)		
Sr. No.	Description of item	Estimated Quantity	Unit	Rate per unit	Other charg es	Tax	Total
4.1	Dry powder- ABC, 6kg (50% MAP)	300	No.				
4.2	Dry powder- ABC, 9kg ((50% MAP)	150	No.				
4.3	CO ₂ Type, 4.5kg (>99% Pure Carbon Dioxide gas)	100	No.				
4.4	Mechanical Foam, 9 litter (3-6% AFFF, Synthetic based)	10	No.				
4.5	D-Type fire Extinguisher, 6kg (Ternary Eutectic Chloride (TEC))	10	No.				
4.6	Kitchen/ F-Type fire Extinguisher, 9liter (High Quality wet chemical)	30	No.				
Total (T4)							
Note:	Check 1d of work scope f	or details.					

Item 5:	Item 5: Spare parts/ Components							
Sr. No.	Description of item	Estimate d Quantity	Unit	Rate per unit	Other charg es	Tax	Total	
5.1	Discharge Hose, ABC	50	No.					

5.2	Hose with horn Co2, 1m	20	No.			
5.3	Hose with horn Co3, 2m	20	No.			
5.4	Pressure Gauge	50	No.			
5.5	Nozzle, Mechanical foam	10	No.			
5.6	Nozzle Holder, hug-belt	100	No.			
5.7	Information Labels of fire extinguishers	50	No.			
5.8	Handle, valve ABC	10	No.			
5.9	Handle CO2	10	No.			
5.1	Safety Pins	100	No.			
5.11	Re-Painting of Cylinder	100	No.			
5.12	Wheels of trolley mounted fire extinguishers	5	No.			
5.13	Trolley of fire extinguishers	5	No.			
5.14	Syphon for ABC	10	No.			
5.15	Wall mounted Bracket	20	No.			
5.16	Wheel of CO ₂	5	No.			
5.17	Neck handle of CO ₂	20	No.			
Total (T5)						

Item 6	Item 6: Bucket, Fire point Stand, floor stand Maintenance for 1 year							
Sr. No.	Description of item	Estimate d Quantity	Unit	Rat e per unit	Other charge s	Tax	Total (T6)	
6.1	Supply of stand for Fire Extinguisher & buckets with Canopy	40	No.					
6.2	Maintenance of stand of fire Extinguisher and Bucket Stand with Canopy	40	No.					
6.3	Supply of new fire Buckets	100	No.					
6.4	Maintenance of Fire Buckets	200	No.					
6.5	Fire Extinguisher Floor Stand	100	No.					

6.6	and its installation	100	No.	Tot	tal (T6)	
6.6	Supply of Bucket Bracket	100	No			

			Item No. 7: Pressure testing (mixed 25% cartridge and 75% non-cartridge)								
Fire Extinguisher Type	Estimated Quantity	Unit	Rate per unit	Other charg es	Тах	Total					
DCP	700	No.									
CO2 Type	200	No.									
Foam	50	No.									
Water type	50	No.									
K type	10	No.									
D type	5	No.									
Total (T7)											
o. 8: Metal Scrap : Paymer	nt to IITB		T _	T = -		_					
Fire Extinguisher Type	Estimated Quantity	Unit	Rate per unit	Other charg es	Ta x	Tot al (T8)					
Metal Scrap of rejected Fire Extinguishers, frames, buckets, etc.	200	kg									
			II.	Total	(T8)						
	CO2 Type Foam Water type K type D type o. 8: Metal Scrap : Paymer Fire Extinguisher Type Metal Scrap of rejected Fire Extinguishers, frames, buckets, etc.	CO2 Type 200 Foam 50 Water type 50 K type 10 D type 5 CO2 Type 50 K type 50 Extinguisher Type 200 Metal Scrap of rejected Fire Extinguishers, 200	CO2 Type 200 No. Foam 50 No. Water type 50 No. K type 10 No. D type 5 No. Co. 8: Metal Scrap : Payment to IITB Fire Extinguisher Type Estimated Quantity Unit Metal Scrap of rejected Fire Extinguishers, 200 kg	DCP 700 No. CO2 Type 200 No. Foam 50 No. Water type 50 No. K type 10 No. D type 5 No. Pire Extinguisher Type Setimated Quantity Wetal Scrap of rejected Fire Extinguishers, 200 kg	DCP 700 No. CO2 Type 200 No. Foam 50 No. Water type 50 No. K type 10 No. D type 5 No. Total O. 8: Metal Scrap : Payment to IITB Fire Extinguisher Type Estimated Quantity Unit Per unit Per unit Per Charg es Metal Scrap of rejected Fire Extinguishers, frames, buckets, etc.	DCP					

Note: The quantities shown in the above schedule are approximate and are provided as a guide to give the tenderer(s) an idea of the quantum of work involved. IIT Bombay reserves the right to increase, decrease, delete, or include any of the quantities given above.

Place:	GST Registration No:
Date:	Signature:

IMPORTANT NOTE:

- 1. The price variation clause will not be applicable to this contract. The tenderer should keep note of it and quote accordingly.
- 2. Bidders are requested to read the tender document carefully and are strongly advised to inspect the site before quoting the tender.

Signature and stamp of the tenderer Section

Technical Officer, Fire and Safety

SECTION 7 – ANNEXURES

ANNEXURE 1: BIDDER'S INFORMATION

(On Company / Firm Letterhead)

Details of the bidder:					
1	Name of the bidder				
2	Registered Office/Shop Address of the bidder				
3	Details of the Incorporation/Shop Establishment License of the	Date:			
	Company	Registration No.			
4	Details of Franchise (if applicable)				
5	Valid GST Registration No.				
6	Permanent Account No. (PAN)				
7	Name & Designation of the Contact person to whom all references shall be made regarding this tender.				
8	Address for Communication				
9	Telephone No. (with STD Code)				
10	Email Address of the contact person				
11	Fax No. (with STD Code)				

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١	Oldilatale	OI LIIC	Diducti	i illitea	INALLIC	Designation	Ocai

Date:

Business Address:

ANNEXURE 2: DECLARATION OF ANNUAL TURNOVER AND INCOME TAX RETURN

(On Company / firm Letterhead)

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To, The Asst. Registrar (MM) Materials Management Division, IIT Bombay, Powai, Mumbai – 400 076.

Sir,

Ref: Tender No. MMD/FSS/SC/2024-25 dated 21st March 2024 for "Tender for THE SUPPLY, INSPECTION, REFILLING, TESTING AND MAINTENANCE OF FIRE EXTINGUISHERS AND RELATED SERVICES".

1) I/we hereby declare that our firm's Annual Turnover and I/we have also supported Audited Accounts for your reference:

F. Y. 2020-21	F.Y. 2021-22	F. Y. 2022 – 23

and

2) I/we hereby declare that, our firm had filed Income Tax Returns for the last three years i.e. A.Y. 2021- 22, A.Y. 2022- 23 A.Y. 2023- 24. Supported by copy of ITR Acknowledgement.

Yours faithfully,

(Signature of the bidder)
Printed Name

Designation

Seal

Date:

Business Address:

Encl: As above

ANNEXURE 3: EXPERIENCE IN SIMILAR WORK

(On Company / Firm Letterhead)

To, The Asst. Registrar (MM), Materials Management Division, IIT Bombay, Powai, Mumbai – 400 076.

Sir,

Ref: Tender No. MMD/FSS/SC/2024-25 dated 21st March 2024 for "Tender for THE SUPPLY, INSPECTION, REFILLING, TESTING AND MAINTENANCE OF FIRE EXTINGUISHERS AND RELATED SERVICES."

Brief particulars of the similar work done as per Point 2 of Section 2.

(Please attach a copy of the work orders & their completion certificates for our reference)

Sr. No	Name of Company	Work Order No. & Date	Amount of Work order	Completion Certificate attached (Yes/No)	Details of Contact person (Name, Address & Contact No.)

Yours faithfully,

(Signature of the bidder) Printed Name Designation Seal

Date:

Business Address: Encl: As above

ANNEXURE 4: DECLARATION FOR ACCEPTANCE OF TENDER TERMS AND CONDITIONS

(On Company / firm's Letterhead)

	Date:
To, The Asst. Registrar (MM) Materials Management Division, IIT Bombay, Powai, Mumbai – 400 076.	
Sir,	
Ref: Tender No MMD/FSS/SC/2024-25 dated 21 st March 2024 for "Tender SUPPLY, INSPECTION, REFILLING, TESTING AND MAINTENANCE O EXTINGUISHERS AND RELATED SERVICES."	
I/we carefully gone through the Terms & Conditions as mentioned in the abereferred tender document. I/we declare that all the provisions of this tender acceptable to my company. I /we further certify that I am an authorized sign my company and am, therefore, competent to make this declaration.	are
Yours faithfully,	
Tours raining,	
(Signature of the bidder) Printed Name Designation Seal	
Date:	
Business Address:	

ANNEXURE 5 - DECLARATION REGARDING CLEAN TRACK

(On Company / firm's Letterhead)

Date:

To, The Asst. Registrar (MM) Materials Management Division, IIT Bombay, Powai, Mumbai – 400 076.

Sir,

Ref: Tender No. MMD/FSS/SC/2024-25 dated 21st March 2024 for "Tender for THE SUPPLY, INSPECTION, REFILLING, TESTING AND MAINTENANCE OF FIRE EXTINGUISHERS AND RELATED SERVICES."

I/we carefully gone through the Terms & Conditions contained in the above referred tender. I/we hereby declare that my company / firm is not currently debarred / black listed/convicted by any Government / Semi Government Organizations / Institutions in India orabroad. I/we further certify that I'm competent officer in my company /firm to make this declaration.

Or

I/we declare the following:

Sr. No.	Country in which the company is debarred /blackliste d/ case is pending	Black listed / debarred by Government / Semi Government Organizations/Institutions	Reason	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding Period for which the company / firm was blacklisted and the reason/s for the same)

Yours faithfully,

(Signature of the bidder) Printed Name Designation

Section 8: FORMATS

F.1 Format for Performance Bank Guarantee

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of One Hundred) (TO BE ESTABLISHED THROUGH ANY OF THE NATIONAL BANKS (WHETHER SITUATED AT MUMBAI OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT MUMBAI OR ANY SCHEDULED BANK SITUATED AT MUMBAI).

To, The Registrar, Indian Institute of Technology Bombay, Powai, Mumbai – 400 076.

LETTER OF GUARANTEE

NOW THIS BANK HEREBY GUARANTEES that in the event of the said tenderer (seller) failing to abide by any of the conditions referred in tender document / Contract order / performance of the Supply, Inspection, Refilling, Testing and Maintenance of Fire Extinguishers and Related Services etc. this Bank shall pay to Indian Institute of Technology Bombay on demand and without protest or demur Rs 2,00,000/- (Rupees Two Lakh Only).

This Bank further agrees that the decision of the Indian Institute of Technology Bombay (Buyer) as to whether the said Tenderer (Seller) has committed a breach of any of the conditions referred in tender document / Contract order shall be final and binding.

We, (name of the Bank & branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the

constitution of the Tenderer (Seller) and/ or Indian Institute of Technology Bombay (Buyer).
Notwithstanding anything contained herein:
1. Our liability under this Bank Guarantee shall not exceed Rs only).
 This Bank Guarantee shall be valid up to(date) and We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if IIT Bombay serve upon us a written claim or demand on or before
This Bank further agrees that the claims, if any, against this Bank Guarantee shall be enforceable at our branch office at situated at
Yours truly,

Signature and seal of the guarantor:

Name of Bank:

Address:

Date:

SECTION 9 - CHECKLIST

The following items must be checked before the Bid is submitted:

1. ENVELOPE "1"

- i. Demand Draft for Rs.1,00,000 /- (Rs. One Lakh only) towards Earnest Money Deposit.
- ii. Eligibility Criteria Responses (each page duly sealed and signed by the authorized Signatory)
- iii. Annexure 1: Bidder's Information
- iv. Annexure 2: Declaration of Annual Turnover and Income Tax Return
- v. Annexure 3: Experience in Similar Work
- vi. Annexure 4: Declaration for Acceptance of Tender Terms and Conditions
- vii. Annexure 5: Declaration Regarding Clean Track

2. ENVELOPE "2"

i. Price Bid

Your quotation must be submitted in two envelopes **Technical Bid (Envelope 1) and Price Bid (Envelope 2)** superscribing on both the envelopes the Tender No. and the due date and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed with our **Tender No. & Due date.**