



**DIRECTOR,
MAHARASHTRA FIRE SERVICES,
GOVERNMENT OF MAHARASHTRA
STATE FIRE ACADEMY,
HANS BHURGA MARG, VIDYANAGRI
SANTACRUZ (EAST),
MUMBAI - 400 098**

TENDER DOCUMENT

**Tender Number: MFS/RC-5/2011
FOR**

SUPPLY OF Turn Table Ladders

30 MTRS TO 35 MTRS.

40 MTRS TO 45 MTRS.

50 MTRS TO 55 MTRS.

**RATE CONTRACT FOR
THE PERIOD OF 2 YEARS**

GOVERNMENT OF MAHARASHTRA

No. 244 / MFS
Tel. No.2667 0438
Fax No.2666 0287

Directorate of Maharashtra Fire Services,
State Fire Academy,
Vidyanagari, Hans Bhugra Marg,
Santacruz (East), Mumbai 400 098.
Date : 15th March, 2011.

CORRIGENDUM

**Sub : Rate Contract for ...
Extension period for submission of Tender Document.**

The Sealed Tenders were called for the following items vide Tender Notice dated 24.01.2011 and 10.02.2011. The last date of submission of Tender document in respect of the following tenders is extended as shown against each below :-

Sr. No.	Name of Tender	Present date of submission	Revised dated of Submission	PRE BID
1	Supply of Self Contained B.A. Set with Breathing Air Compressor.	15.03.2011 Upto 13.00 hrs	30.03.2011 Upto 13.00 hrs	25.03.2011 At 15.00
2	Supply of Rescue Tools & Thermal Imaging Camera	15.03.2011 Upto 13.00 hrs	30.03.2011 Upto 13.00 hrs	25.03.2011 At 15.00
3	Supply of Portable Fire Pump as per IS 12717	15.03.2011 Upto 13.00 hrs	30.03.2011 Upto 13.00 hrs	25.03.2011 At 15.00
4	Supply of Ancillary Fire Fighting Equipments	15.03.2011 Upto 13.00 hrs	30.03.2011 Upto 13.00 hrs	25.03.2011 At 15.00
5	Hydraulic Platform (HP) & Turn Table Ladder (TTL) a) 30 Mtrs to 35 Mtrs b) 40 Mtrs to 45 Mtrs c) 50 Mtrs to 55 Mtrs d) 65 Mtrs to 70 Mtrs	11.03.2011 Upto 13.00 hrs	30.03.2011 Upto 13.00 hrs	25.03.2011 At 16.00

02. The Bidders may please note the above changes.

Sd/-
[M. V. DESHMUKH]
Director
Maharashtra Fire Services

Copy submitted to the Principal Secretary-2, Urban Development Department,
Mantralaya, Mumbai-400 032 for information.

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INVITATION FOR TENDER

**DIRECTOR,
MAHARASHTRA FIRE SERVICES,
STATE FIRE ACADEMY,
HANS BHURGA MARG, VIDYANAGRI,
SANTACRUZ (EAST), MUMBAI 400 098**

On behalf of the Government of Maharashtra, the Director, Maharashtra Fire Services, Government of Maharashtra, State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai 40098 invites sealed tender offers (Technical and Commercial) from eligible manufacturers or their single eligible partner for Finalization of Rate Contract in the State of Maharashtra **for Supply of Turn Table Ladders for the use of various fire services** of State Govt./ ULB'S/SPA'S, State Govt. Undertakings, Organisations, or companies in the State of Maharashtra,

The rate contract shall be valid for the period of 2 years from the date of signing of the contract. However, if Government thinks it is appropriate may extend up to one more year. Hereinafter referred to as the said authority.

(a) The Tender Form along with Tender Documents is available on and can be downloaded from the Website <http://maharashtrafireservices.org>. The filled Tender Form shall accompany a crossed Demand Draft for Rs. 25,000/- of any Nationalized bank drawn in favour of the **Fire Advisor to the Government of Maharashtra**, payable at Mumbai. The Tender Fee without which the Tender Form shall be treated as incomplete and shall not be considered. The Demand Draft shall be kept in separate envelope, which shall be kept inside technical offer envelope.

(b) **Summary of the Tender Notice is as follows:**

Tender Reference	MFS/RC-5/2011
Tender Fee	Rs. 25,000/-
Earnest Money Deposit (EMD)	Rs. 25 Lakhs through Demand Draft from Nationalised Bank.
Security Deposit (SD) (Only in case of a Successful Bidder)	Rs. 100 Lakhs through Bank Guarantee from Nationalised Bank. As specified in BID Security Form-BSF (Annexure - K)
Availability of Tender Form and Tender Document	FROM : 04/02/2011 at 11 .00 AM UP to : 11/03/2011 at 14.00 PM
Pre-bid Conference date & place	<u>On 04/03/2011 at 11.30 hrs</u> Office of the Director, Maharashtra, Fire Services State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai - 400 098
Last Date, Time and place for receipt of Bids	11/03/2011 at 13:00 hrs in the office of the Director, Maharashtra Fire Services, State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai - 400 098

Time and Date of Opening of the 1 st Envelop (Prequalification)	11/03/2011 at 15:00 hrs in the office of the Director, Maharashtra Fire Services, State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai - 400 098
Time and Date of Opening of the Technical Bid of qualified agencies.	11/03/2011 at 15:00 hrs (If possible) in the office of the Director, Maharashtra Fire Services, State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai -400 098.
Time and Date of Opening of the Commercial Bid of qualified agencies.	16/03/2011 at 15:00 hrs in the office of the Director, Maharashtra Fire Services State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai - 400 098
Address of Communication	Office of the Director, Maharashtra Fire Services, State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai -400 098
Contact Person and Telephone Numbers	<u>Mr. Kiran Hatyal , 08108077791 (M) 022-26670438; 26660287</u> <i>Sr. Instructor, State Fire Academy, Mumbai</i>
Time limit for completion of work	<u>60 Days</u>
Validity of offer	<u>180 days</u>

- (c) The Bid should remain valid for 180 days from the date of opening of the Commercial Bid. However the contract period shall be 2 years from the date of signing the contract.
- (d) All the Bidders, who match the qualification criterion laid down under the Tender Document, who intend to Bid, are required to submit Earnest Money Deposit (“EMD”) of Rs. 25,00,000/- (Rupees Twenty Five Lakhs Only) by the way of a Demand Draft drawn in favour of " **Fire Advisor to the Government of Maharashtra**", drawn on any Nationalized Bank along with their Bids, in his office at State Fire Academy, Hans Bhurga Marg, Vidyanagri, Santacruz (East), Mumbai -400 098 All those Bids for which EMD is not submitted along with the Bid shall be rejected out rightly without assigning any reason thereof.
- (e) The EMD deposit of successful bidder shall be converted as a part of security deposit and EMD of unsuccessful bidders shall be refunded within 60 Days from the date of finalization of tender.
- (f) The Director, Maharashtra Fire Services reserves an absolute, unqualified and unchallengeable right to accept or reject any or all Bids without assigning any reason thereof.
- (g) All the aforesaid items will be purchased as per terms and condition of rate contract for supply and installation, delivery, training FOR destination of respective purchaser having their any location anywhere in the state of Maharashtra. The rate contract shall be valid for the period of 2 years from the date of signing of the contract.
- (h) Tender Notice is available on the website <http://maharashtrafireservices.org>.
- (i) Failure to submit EMD, failure to fulfill any condition or submission of incomplete Bid shall lead to the rejection of the Bid.

- (j) Conditional Tender/Bid such as alternative offers or any hidden clauses, expenses etc. shall be liable for rejection without assigning any reason there of.
- (k) This Tender Notice/ Bid document and corresponding errors or changes brought in past pre bid meeting shall form a part and partial of Tender Document.
- (l) The Bidders are advised to read carefully the "**Instructions to Bidders**" contained in the Tender Document.
- (m) Additional details, if required may be obtained from undersigned, during office hours on working days.

Dated: 4/02/2011

Director,
Maharashtra Fire Services

DISCLAIMER

The information contained in this Tender Document (the “document”) or subsequently provided to Bidder(s), whether verbally or in documentary or any other form, by or on behalf of Maharashtra Fire Services (referred to as the “Authority”) or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this document and such other terms and conditions subject to which such information is provided.

This document is not an agreement and is neither an offer nor an invitation by the Authority to the prospective Bidders or any other person. The purpose of this document is to provide interested parties with information that may be useful to them in the formulation of their Bid pursuant to this document. This document includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the designing, fabrication, commissioning and testing of Rescue Tools & Equipments & Thermal Imaging Camera. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This document may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this document. The assumptions, assessments, statements and information contained in this document may not be complete, accurate, adequate or correct and each Bidder should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this document and obtain independent advice from appropriate sources.

Information provided in this document to the Bidder(s) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this document or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the document and any assessment, assumption, statement or information contained therein or deemed to form part of this document.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this document.

The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this document.

The issue of this document does not imply that the Authority is bound to appoint the selected bidder for the designing, fabrication, commissioning and testing of Rescue Tools & Equipments & Thermal Imaging Camera and the Authority reserves the right to reject all or any of the Bids without assigning any reasons whatsoever.

The Authority is at its discretion to select one or more than one successful Bidders at its discretion.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstration or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Application. All such costs and expenses will remain with the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by the Bidder in preparation and/or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

INSTRUCTION TO BIDDERS

A. INTRODUCTION

1. GENERAL CONDITIONS:

(a) TENDER FORM AND TENDER FEE:

The tender Form along with tender document is available on and can be downloaded from the Website <http://maharashtrafireservices.org>. The filled Tender Form shall accompany a crossed Demand Draft for Rs. 25,000/- of any nationalised bank drawn in favour of “**Fire Adviser to the Government of Maharashtra**”, payable at Mumbai. Tender Fee without which the Tender will be taken as incomplete and shall be rejected. The Demand Draft shall be submitted in separate envelope, superscribed as “Tender **Form Fees**”

(b) EARNEST MONEY:

Bidders are required to submit a Demand Draft of Rs. 25,00,000/- (Rupees Twenty Five Lakhs only) as Earnest Money Deposit (“EMD”) of any nationalised bank drawn in favour of “**Fire Adviser to the Government of Maharashtra**”, payable at Mumbai along with their offer. Offers, made without EMD, shall be rejected outrightly without assigning any reason thereof. The Demand Draft must be of a **Nationalized Bank and should be in favour of Fire Adviser to the Government of Maharashtra.**

EMD shall be submitted by the way of a **Demand Draft only** as provided above and by no other mode. Offers wherein EMD is not submitted in the mode prescribed above shall be outrightly rejected without assigning any reason thereof.

EMD provided by the unsuccessful Bidders will be returned within a period of 60 Days of the period of tender offer validity prescribed from the date of signing the contract with successful bidder.

The EMD of the successful Bidders shall be adjusted partly against the amount of Security Deposit while executing the Contract and the balance security deposit shall be payable by way of Bank Guaranty before signing of contract.

The EMD may be forfeited:

1 If a Bidder withdraws its tender during the period of bid validity

OR

2 In case of a successful Bidder, if the Bidder fails:

1. To execute the agreement / contract within 14 days from the date of the issue of the Letter of the Intent. (Lol)
2. to submit Security Deposit as specified in the terms and conditions

2. **Eligible Bidders:**

This invitation for Bids is open to all Manufacturers / suppliers of Special Hydraulic platforms (ALP) & Turn Table Ladders (TTL) as per **EN 14043 / EN 14044 /EN 1777 AND EN 280 AND EN 280 AND EN 280 / “JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK- 2005** for firefighting & rescue purpose, who fulfill the required criteria as mentioned in clause 9, & 13

3. **Eligible Goods and Services:**

3.1 All goods and ancillary services to be supplied under the contract shall have their origin.

3.2 For purpose of this clause,:

a) “Origin” means the place where the goods are mined, grown or produced or from which the ancillary services are supplied.

b) Goods are produced when, through manufacturing processing or substantial and major assembling of components a commercially recognized product results that is substantially different in basis, characteristics or in purposes or utility from its components.

3.3 The origin of goods and services is distinct from the nationality of the Bidder.

4. **Cost of Bidding:**

4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Director, Maharashtra Fire Services hereinafter referred to as “the Purchaser’ will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

➤ **The Bidding Documents**

5. **Content of Bidding Documents:**

5.1 The goods which require bidding procedures and contract terms are prescribed in the Bidding Documents. In addition to the invitation for Bids, the Bidding Documents include: -

General Conditions of Contract;

(a) Instruction to Bidders;

- (b) Special Conditions of Contract;
- (c) Bid Security Form;
- (d) Contract Agreement Form;
- (e) Performance Security Form;
- (f) Specifications;
- (g) Bid Form;
- (h) Schedule of Manufacturer's information;
- (i) Schedule of technical particulars;
- (j) Schedule of Delivery;
- (k) Schedule of Guarantee;
- (l) Schedule of Spare Parts;
- (m) Schedule of Tools;
- (n) Schedule of Deviations from Specifications;
- (o) Schedule of Prices;

5.2 The Bidder is expected to go through & fulfill/to all instructions, forms terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid substantially responsible to the Bidding Documents in every respect will be at the Bidder's risk and may result in the rejection of its bid.

6. **Clarification of Bidding Documents:**

6.1 A prospective Bidder requiring any clarification of the Bidding Documents may notify the Purchaser in writing or fax at the Purchaser's mailing address indicated in the Invitation for Bids. The Purchaser will respond in writing to any request for clarification of the Bidding Documents, which it receives no later than 15 days prior to the deadline for the submission of bids prescribed by the Purchaser. Written copies of the Purchaser's response (including explanation of the query but without identifying the source of inquiry) will be provided to those prospective Bidders who have received the Bidding Documents.

7. **Amendment of Bidding Documents:**

7.1 At any time prior to the deadline for submission of Bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by amendments.

7.2 Such amendment/s will be notified in writing to all prospective Bidders, who have received the Bidding Documents and that, it will be binding on them.

7.3 The purchaser may, at its discretion, extend the deadline for the submission of bids. So as to enable the prospective Bidders to take in to accounts such

amendment/s while preparing their bids.

➤ **PREPARATION OF BIDS**

8. Language of Bid:

- 8.1 The Bid prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language so long as accompanied by a English translation of its pertinent passages in which case, for purposes of meaning & interpretation of the bid, the English translation shall prevail.

9. Documents comprising the Bid:

Bid prepared by the Bidder shall comprise the following components.

- (a) A Bid Form and a Price Schedule completed in accordance with Clauses 10,11, and 12;
- (b) Documentary evidence established in accordance with Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted.
- (c) Documentary evidence established in accordance with Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the Bidding Documents; and
- (d) Bid security furnished in accordance with Clause 15

10. Bid Form:

- 10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the Bidding Documents, indicating for the goods to be supplied, a brief description of the goods, their country or origin, quantity and prices.

10.2 Bids offering goods manufactured in the Purchaser country for which the domestic value added in the manufacturing cost is not less than 20% of the ex-factory price;

11. Bid Prices:

11.1 The Bidder shall indicate on the appropriate Price Schedule attached to these documents the unit prices and total Bid Prices of the goods it proposes to supply under the Contract and in case of goods of foreign origin in F.O.B. & C.I.F. cost.

11.2 Prices indicated on the price Schedule shall be entered separately in the following manner: -

For goods offered from within the Purchaser's country:

- (i) The price of the goods, quoted ex-factory, ex-showroom, ex-warehouse or off the –shelf, as applicable including all customs duties and sales and other taxes already paid or payable;
 - a) On the components and raw material used in the manufacture or assembly of goods quoted ex-factory; or
 - b) On the previously imported goods of foreign origin quoted ex-show rooms, ex-warehouse or off-the-shelf.
- (ii) Any purchaser country sales and other taxes which will be payable on the goods if this contract is awarded;
- (iii) Charges for inland transportation, insurance and other local costs incidental to delivery of the goods to their final destination; and
- (iv) The cost of incidental services listed in clause 8 of the Special Conditions of Contract.

11.3 The Bidder's separation of price components in accordance with Para. 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Purchaser and will not in any way limit the Purchaser's right to contract on any of terms offered.

11.4 Fixed price – Prices quoted by Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and will be rejected pursuant to clause 24.

12. BID CURRENCIES :

- 12.1 Price shall be quoted in the following currencies:
- (a) For goods and services which the Bidder will supply from within the Purchaser's Country, the prices shall be quoted in Indian Rupees: and
 - (b) For goods and services which the bidder will supply from outside the Purchaser's country, the prices shall be quoted either U.S. Dollars or Euro or in the freely convertible currency.
- 12.2 Further, a Bidder expecting to incur a portion of its expenditures in the performance of the Contract in more than one currency, and wishing to be paid accordingly, shall so indicate in its bid. In such a case, either (i) the bid shall be expressed in different currencies and the respective amounts in each currency together making up the total price, or (ii) the total bid price shall be expressed in one currency and payments required in other currencies expressed as a percentage of the bid price along with the exchange rate used in such calculation.

13. Bidder's Eligibility and Qualifications:

- 13.1 Pursuant to Clause 9, the Bidder shall furnish, as Part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted.
- 13.2 The documentary evidence of the Bidder's eligibility to bid shall establish to the Purchaser's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible source country as defined under clause 2.
- 13.3 The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted, shall establish to the Purchaser's satisfaction:
- (a) Manufacturer shall have minimum 10 years of experience in the field of Fire & Rescue Vehicles
 - (b) That in the case of a Bidder offering to supply goods under the Contract shall be the manufacturer of the item tendered and should have **supplied minimum 100 units** of Turn Table Ladders in last 3 years. The Turntable Ladder shall be designed as per the designed, operational stability and structural strength based on the criteria laid in prEN14043 / **EN 14043 / EN 1777 AND OR "JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK OR** an equivalent standards meeting the criteria's

laid down in EN standards and other norms and standards applicable for elevated raised platforms used for Fire Fighting and rescue operations to various Fire Services in the world during last five years.

- (c) The tenderer Should have a turnover of RS 100crores) during the last 3 years
- (d) Latest bank solvency certificate for RS 10 crores
- (e) Bid security for an amount of Rs. 25,00,000/-
- (f) That the Bidder has the financial, technical and production capability necessary to perform the Contract; and
- (g) That in the case of Bidder not doing business within the Purchaser's country, the Bidder is or will be (if successful) represented by an agent in that country and suppliers maintenance, repairs and spare parts stocking obligation prescribed by the Conditions of the contract and /or Technical Specifications.
- (h) The tenderer should have approvals from the appropriate authorities certifying that the offered model is meeting the requirements as per respective EN norms. And or JAPANESE INTERNATIONAL SAFETY standards norms for Fire fighting vehicles & ladder
- (i) Manufacturer should have their sales & service network in India thru their authorized agency / representative / distributor which shall have enough experience in Fire & Emergency Vehicles segment with full fledged manufacturing / fabricating the Fire Vehicles / tenders. To substantiate, Indian agent / representative / distributor shall furnish the authorization letter in original with tender documents.
- (j) That the bidder has offered necessary comprehensive service maintenance contract with full-fledged service facilities in or around Maharashtra

14. Documents Establishing Goods Eligibility and Conformity to Bidding Documents:

- 14.1 Pursuant to Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to Bidding Documents of all goods and services, which the Bidder proposes to supply under the contract.
- 14.2 The documentary evidence of the goods and services eligibility shall consist of a statement in the Price Schedule on the country of origin of the goods and services offered, which shall be confirmed by the certificate of origin issued at the time of shipment.
- 14.3 The documentary evidence of the goods and services conforming to the Bidding Documents may be in the form of literature, drawings and data, and shall furnish:
- (n) A detailed description of the goods essential, technical and performance characteristics;
 - (o) A list giving full particulars, including available sources and current prices, of all spare parts, special tools, etc. necessary for the proper and continuing functioning of the goods for a period of two years, following commencement of the goods used by the Purchaser; and
 - (p) A clause-by-clause commentary on the Purchaser's Technical Specifications demonstrating the goods and services substantial responsiveness to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications
- 14.4 For purpose of the commentary to be furnished pursuant to Clause 14.3 (c) above, the bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalog numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and /or catalog numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions are substantially equivalent or superior to those designated in the Technical Specifications.

15. **Bid Security:**

- 15.1 The Bidder or his authorized agent shall furnish, as part of its bid, bid security for an amount of Rs 25,00,000/- on any working day, previous to the due date of bid submission to the DIRECTOR during 11.00 a.m. to

2.00 p.m. on week days.

The DIRECTOR (MFS)
Maharashtra Fire Services,
Maharashtra,
INDIA

- 15.2 The bid security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture, pursuant to Para 15.7
- 15.3 The bid security shall be in one of the following forms;
- (a) A Demand Draft, drawn on any Nationalized Bank in favour of "DIRECTOR, MFS, Mumbai, payable at Mumbai".
- 15.4 Any bid not secured in accordance with Para's 15.1 and 15.3 will be rejected by the Purchaser as non-responsive pursuant to Clause 24,
- 15.5 Unsuccessful Bidder's bid security will be discharged/returned after the 90 days of expiration of the period of bid validity prescribed by the Purchaser, pursuant to clause 16. The bid amount will be returned in the same currency in which the tenderer has paid the bid security. In case of foreign currency, the exchange rate applicable will be as prevailing on the date of refund of bid security.
- 15.6 The successful Bidder's bid security will be discharged upon the Bidders executing the contract, pursuant to Clause 34, and furnishing the performance security pursuant to clause 35.
- 15.7 The bid security may be forfeited and bidders may be disqualified permanently bidding for further works with the purchaser.
- (a) If a bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- (b) In the case of a successful Bidder, if the Bidder fails;-
- (i) To sign the contract in accordance with clause 33 or
- (ii) To furnish performance security in accordance with clause 34.
- 15.8 (a) No interest will be paid on Bid Security
- (b) Bid will not be accepted without Bid Security

16 **Period of Validity of Bids:**

- 16.1 Bids shall remain valid for 180 days after the date of bid opening

prescribed by the Purchaser pursuant to Clause 19. For a bid, which is valid for a shorter period, may be rejected by the purchaser as non-responsive.

16.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the response thereto shall be made in writing (or by fax). The bid security provided under Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required / permitted to modify its bid.

17. **Format and Signing of Bid:**

17.1 The Bidder shall prepare one copy of the bid, clearly making "Original Bid".

17.2 The original bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The Letter of Authorization shall be indicated by written power of attorney accompanying the bid. The person or persons signing the bid shall initial all the pages of the bid, except for un-amended or printed literature.

17.3 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which, such corrections shall be initialed by the person or persons signing the bid.

18. **SUBMISSION OF BIDS :-**

18.1 **METHOD OF SUBMISSION OF TENDER FORM**

The three envelop system shall be followed; means offers shall have:

- a) Demand Drafts of Tender Fees & EMD
- b) Technical Bid and
- c) Commercial Bid

Separately, in separate sealed envelopes superscripted as Technical and Commercial Offers respectively. The Demand Drafts of EMD & Tender Document Fees should be submitted in separate envelopes. However, all these envelopes may be put in another larger envelope, sealed and superscripted with the Tender Reference Number and Name of Bidder.

18.1.1 The sealed envelopes must be super-scribed with the following information:-

- Type of Offer (Technical or Commercial)
- Tender Reference Number

- Name of Bidder

18.1.2 The tenderers are expected to fill their tender carefully and scrutinize the same before delivering to MFS Fire service. No variation on any grounds such as mistakes, or misunderstanding will be allowed after the tender is opened, recommended, or accepted. The rates and cost must be quoted in figures as well as in words.

18.1.3. Packet 'A' shall contain:-

ENVELOPE - I:

- (a) Earnest Money Deposit of a Value of Rs. 25,00,000 Lacs : Demand Draft of Rs. 25 Lacs (Rupees Twenty five Lac) as Earnest Money Deposit of any nationalized bank drawn in favour of "**Fire Adviser to the Government of Maharashtra**", payable at Mumbai
- (b) **Non refundable fee** of Rs. 25,000/- in the form of crossed Demand Draft drawn in favour of the **Fire Adviser to the Government of Maharashtra**, Mumbai, payable at Mumbai if the tender form is downloaded from the website.

18.2 Packet 'B' shall contain the certified copies of following documents:-

ENVELOPE - II: (TECHNICAL BID/OFFER):

The Technical Offer (T.O.) shall be complete in all respects and contain all information asked for, **except prices**. It shall not contain any price information. The T.O. shall have the list of items (Specification and Make Details) for which Tender has been submitted. (**Annexure S**)

For example, the Technical Offer shall mention that warranty for three years is included in the Commercial Offer, without showing the actual amounts against the T.O.

The **Technical Offer** must be submitted in an organized and neat manner and numbered. No documents, brochures, leaflet, etc. shall be submitted in loose form. Unnecessary papers and duplication of information shall be avoided. However a soft copy of the bids (Technical and Commercial) be submitted in searchable PDF in a media such as CD or memory stick.

The Technical Offer shall be submitted in duplicate.

The format for submission of Technical Offer is as follows:

- i. Index
- ii. Tender Offer Form (**Annexure B**) duly filled in.
- iii. Documents Establishing Bidder's Eligibility and Qualifications
- iv. The Bidder shall furnish, as part of its Tender Offer, documents

establishing the Bidder's eligibility to participate in the Tender and its qualifications to perform the Contract.

- v. The documentary evidence of the Bidder's qualifications to perform the Contract, shall establish to the Purchaser's satisfaction that the Bidder is eligible as per the criteria outlined in the Pre Qualification Requirements (QCR). The list of documents to be submitted has been mentioned in the prequalification compliance sheet given at **Annexure- C**.
 - vi. Requirements detailed out in **Technical Specification Form Annexure A**
 - vii. All the Annexure duly filled and signed by authorized signatories.
 - viii. **Technical Documentation** (Product Brochures, leaflets, manuals etc) as proof towards the compliance of requirements given at **Annexure A & Annexure S**. All products quoted should be associated with specific model numbers and names along with printed literature describing the specifications and functionality.
 - ix. The following information should be furnished along with the Technical Offer by means of printed technical brochures and filling required information in Technical Details Form:
 - x. Products that is to be supplied free of cost and the ones to be charged for should be clearly indicated. Restriction on usage, if any, should also be mentioned.
 - xi. Warranty Offer details are as per Clause of the "Terms & Conditions of Contract" (Except price)
 - xii. Letter Of Acceptance of all Terms and Conditions of the tender document.
 - xiii. Power of Attorney in favour of the person authorized to sign the bids.
 - xiv. Manufacturer's Quality Assurance System document should be submitted along with tender. Make and model numbers of all the items quoted for
 - xv. Printed product brochures of all items quoted with full technical specifications.
-
- a) Any departure from the printed specifications should be clearly identified in the **Annexure A** under the title 'Deviations' to the offer document
 - b) Sales tax / VAT registration certificate (as the case may be applicable for local/overseas bidders).
 - c) Latest bank solvency certificate for RS 25 Crores
 - d) Registration of the Company
 - e) Partnership deed in case of partnership firm.
 - f) Original tender documents duly signed and stamped.
 - g) Details of the manufacturer and the country of origin.
 - h) Documentary evidence showing that the tenderer is manufacturer of the tendered items for more than 15 years.
 - i) Documentary evidence showing that the offered model is approved by

appropriate authority **EN 14043 / EN 1777 AND OR “JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK** OR an equivalent standards meeting the criteria's laid down in EN standards and other norms and standards applicable for elevated raised platforms used for Fire Fighting and rescue operations to various Fire Services for Turn Table Ladders.

- j) Documentary evidence establishing that the manufacturer has supplied minimum 100 Platforms during the last three (3) years.
- k) Documentary evidence showing that the tenderer has a turnover of Rs. 100 crores during the last 3 years along with certified copy of balance sheet.
- l) Valid ISO 9001 certificate.
- m) Documentary evidence showing that the offered model is approved by appropriate authority **as per standards stipulated in the tender** for Hydraulic Platforms & Turn Table Ladders
- n) Documentary evidence showing that the tenderer has service facilities with trained staff in India.
- o) An undertaking from the manufacturer to supply spares required for a minimum period of 10 years from the date of supply of equipment.
- p) Copy of PAN card with photographs duly certified in case of local tenderer.
- q) Variation from the tender specifications, if any
- r) Additional features offered, if any
- s) Performance Satisfactory Certificates

18.3 The packet 'C' shall contain the schedule of Prices and quantities duly filled in signed and stamped.

ENVELOPE-III (COMMERCIAL OFFER):

The Commercial Offer must be given in a sealed envelope. It must give all the relevant price information and should not contradict the Technical Offer in any manner. The Price Schedule (PS) must be filled in completely, without any errors, erasures or alterations.

The offer should be put in separate sealed envelopes superscribed with following information.

- 1 Tender Reference Number
- 2 Commercial Envelope for item

Bidder should submit their prices only in the **Price Schedule Annexure** given in the Tender. Price quoted other than the Bid form shall be liable to be rejected. The Bid Form must be filled in completely, without any errors, erasures or alterations. Tender should quote **all-inclusive** Price i.e. inclusive of Supply, Installation, Delivery of goods, taxes and duties and 3 Years Warranty, etc.

The tenderers will have to submit their tender on or before due date dd/mm/yyyy

- (a) The price of goods quoted shall be ex factory, ex showroom, ex-warehouse and the applicable taxes including if any shall be shown separately in tender,
- (b) The prices of goods quoted shall be FOB and CIF Mumbai Port basis (by sea freight).
- (c) The rate of taxes / duties and custom duties applicable on the date of submission of tender shall be clearly shown in the tender.
- (d) The charges for transportation/ insurance and other incidental expenses for the delivery of the equipment to Fire station in the state of Maharashtra as per the directives of DIRECTOR, MFS Mumbai. shall be included in the cost.
- (e) The cost on account of deputation of least three officials of MFS for inspection including to & fro and accommodation shall be included in the final cost.
- (f) The cost on account of training to the at least three engineers/ Technicians of MFS for one week at the factory premises of equipment manufacturer shall be included in the cost.

18.4 The price and the cost stated in the tender shall be in Indian Currency or in the freely convertible currency only.

18.5 The prices quoted by the tenderer shall be fixed except for the statutory levies. The prices for the equipment shall be firm during the contract and no other price variation will be allowed under any circumstances. The tender submitted with variable price will be treated as **NON RESPONSIVE** and will be rejected outrightly.

18.6 If the outer envelope is not sealed and marked as required by para 18.1 the Purchaser will assume no responsibility for the bid's misplacement or premature opening.

18.7 The inner and outer envelopes shall be:

- (a) Addressed to the Purchaser at the following address:-

The DIRECTOR (MFS)
Maharashtra Fire Services
Maharashtra,
INDIA

Fax No.- +91 22 26870325

- (b) Bear Bid for supply and delivery of **Turn Table Ladder** ___ **Mtrs to**
___ **Mtrs** For The DIRECTOR, Maharashtra
Fire Services (MFS) "DO NOT OPEN BEFORE 3.00 P.M.
ON..... .."

- 18.8 The outer envelope shall indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "Late"**
- 18.9 No Bid shall be accepted unless it is properly sealed. Bidder shall not be allowed to fill in or seal their tenders at the Corporations Office. Bidders are requested to present the Bid in good time on the stipulated day so as to avoid rush at the closing hour.
- 18.10 Bids shall be fully in accordance with the requirements of this document and the specification attached hereto. Appropriate forms furnished with the Bid document shall be used in quoting bid price.
- 18.11 **Conditional tender shall not be accepted** :
- 18.11.1 Consistent with the intent of Bid documents, Bidder may offer alternatives to their bids. Such alternatives will be given consideration provided that:
- (a) They are described in the applicable schedule and sufficient supplementary information in the form of specifications, drawings, literature to permit a complete evaluation of the Bid.
 - (b) The reasons for alternatives shall be clearly stated, the purchaser reserves the right to accept or reject such alternatives.
- 18.12 Time being the essence; the Bidder should indicate the tendered delivery date (s). The desired delivery requirements of the purchaser are indicated in the specifications.
- 18.13 All information in the Bid shall be in English. Information in any other language shall be accompanied by its translation in English. Failure to comply with this may disqualify a Bid.
- 18.14 The Bid and Schedule of Prices shall be prepared complete in the accompanying forms.
- 18.15 Erasures and other changes shall be noted over with initials of the person or the authorized person signing the bid.
- 18.16 In the bid the quoted unit prices will apply when discrepancies arise with the extended prices.
- 18.17 In the event that prices for some items are given as a lump sum where unit prices are required, the purchaser reserves the right to evaluate unit prices on the basis of the given lump sum prices.

18.18 Bidder shall indicate in his bid, name and address of the persons of the firm who will be acting as his representative in India for the purpose of this contract. He shall also state the service, facilities which he or his representative can make available in India. In the event of foreign Bidder having no agents, they shall indicate in their bid the service, facilities they intend to provide.

18.19 Queries relevant to the Bid documents prior to opening of Bid shall be addressed to:

By Mail and the pre bid meeting will be held on _____ at the Office of
The DIRECTOR (MFS)
Maharashtra Fire Services
Maharashtra,
INDIA

19. **Deadline for submission of Bids:**

19.1 Bids must be received by the Purchaser at the address specified under Para 18.2 not later than 1.00 p.m. on

19.2 The Purchaser may, at its discretion, extend this deadline for the submission of bids by amending the Bidding Documents in accordance with Clause 7, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

20. **Late Bids:**

20.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser, Pursuant to clause 19, will be rejected and /or returned unopened to the Bidder.

21. **Modification and Withdrawal of Bids:**

21.1 The Bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification or withdrawal is received by the Purchaser prior to the deadline prescribed for submission of bids. Notice in the form of email will not be entertained. Signed Scan copy of the notice can be sent by mail but followed signed confirmation copy.

21.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with provisions of Clause 18. A withdrawal notice may also be sent by fax but followed by a signed

confirmation copy, post marked not later than the deadline for submission of bids.

21.3 No bid may be modified subsequent to the deadline for submission of bids.

21.4 No bid may be withdrawn in the interval between and deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security pursuant to Clause 15.7.

21. **SUSPENSION & CANCELLATION OF TENDER**

(c) **SUSPENSION & CANCELLATION OF RATE CONTRACT**

On finding any deviation from the specification or violation of any condition of the tender/ contract, the Rate Contract ("RC") shall be suspended till the final decision. As this is an urgent and emergent act and suspension is not a punishment, it will be issued to check the further supply of substandard goods and keep the gravity and complexity of the problem under control. Thereafter, the show cause notice will be issued to all concerned to take final decision. If goods supplied are not conforming to the relevant specification prescribed in the rate contract, the Rate Contract of the product shall stand terminated. An appropriate action will be taken against such supplier. The aggrieved party may approach the Director, MFS. Decision of the Director, MFS shall be final.

SPECIFICATIONS OF EQUIPMENT:

The technical specifications of the equipments specified in the **Annexure A** are the minimum requirements of the Purchaser. The Bidder shall provide the technical specifications of the equipment or product quoted by him for which specifications have not been given.

A Pre-Bid conference of all the intending Bidders will also be held at the scheduled date and time as indicated in the Schedule of the Tender. Intending Bidders will be allowed to suggest suitable modifications in the Technical Specifications indicated in **Annexure** however Govt. decision shall be final.

(d) **LOCATIONS FOR SUPPLY OF GOODS AND SERVICE**

This Tender is being floated by the Director, Maharashtra Fire Services, Government of Maharashtra. The Rescue Tools & Equipments & Thermal Imaging Camera being procured through this tender shall be installed and

commissioned at any locations in the state of Maharashtra.

(e) SOURCES OF FUNDS

The Purchase Order for the Fire Vehicles (TTL) will be placed by the respective offices under the State Government (hereinafter called the “Respective Purchaser”) where the Rescue Tools & Equipments & Thermal Imaging Camera to be supplied or services to be provided. The Respective Purchaser will be responsible for making the payments for the goods supplied or services rendered as per the Rate Contract only.

(f) SOFT COPY OF TENDER DOCUMENT:

The Purchaser will make available a soft copy of the Tender Document on the media provided by the interested Bidder. There is no separate charge for obtaining such copy. However, the Purchaser shall not be held responsible in any way for any errors / omissions / mistakes in the soft copy. The Bidder is advised to check the contents of the soft-copy for correctness against the printed copy of the Tender Document /copy uploaded on website. The printed copy of the Tender Document/ copy uploaded on website shall be treated as correct and final, in case of any deficiencies or deviation in the soft copy.

(g) ERASURES OR ALTERATIONS AND SIGNING OF TENDER OFFERS

The original and a copy of the Contract / Tender Offer shall be typed or written in ink and shall be signed by the Bidder or a person or persons duly authorized in writing to bind the Bidder to the Contract. Such authorization shall be indicated by power-of-attorney accompanying the Tender Offer. All pages of the Tender Offer, except for un-amended printed literature, shall be initialed by the person or persons signing the Tender Offer. This will be in two different envelopes.

The Tender Offer shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in that case such corrections shall be initialed by the person or persons signing the offer.

(h) COMPLETENESS OF TECHNICAL OFFER

Technical details must be completely filled up. Correct technical information of the product being offered must be filled in. Filling up of the Technical Detail Form using terms such as “OK”, “accepted”, “noted”, “as given in brochure / manual” is not acceptable. The authority may treat offers not adhering to these guidelines as unacceptable and shall be liable for rejection.

(i) ALTERNATIVE OFFERS:

One tender should contain only one product option. Any bidder wishing to offer other alternatives, the same should submit with separate details for that alternative along with all the necessary documentation for each option. Each option should be complete in all respects and should not require cross-referencing with any other option from the same Bidder.

(j) COSTS & CURRENCY

The offer must be given in Indian Rupees only, inclusive of the following:

1. Cost of the equipments
2. Supply, Erection, and Testing charges
3. Warranty charges
4. Charges for transportation of chassis and delivery of Goods to the site
5. Insurance to cover equipment up to installation of equipment at the respective sites and handing it over to end-user.
6. On site training to users
7. Free maintenance
8. All taxes and levies except **OCTROI/ CESS ON ENTRY OF GOODS/ LOCAL BODY TAX**

(k) OCTROI/ CESS ON ENTRY OF GOODS/ LOCAL BODY TAX EXEMPTION CERTIFICATES

The purchaser will provide necessary Octroi/ CESS ON ENTRY OF GOODS/ LOCAL BODY TAX Exemption certificates, if demanded. If such an exemption certificate is not produced then the same shall be borne by the Purchaser

(l) FIXED PRICE

The Commercial Offer shall be on a fixed price basis, inclusive of all taxes and

levies except Octroi/ CESS ON ENTRY OF GOODS/ LOCAL BODY TAX. No price variation should be asked relating to increase in customs duty, excise tax, dollar price variation, etc.

Price quotation accompanied by vague and conditional expressions such as "subject to immediate acceptance", "subject to confirmation before sales", etc. will be treated as being at variance and shall be liable for rejection.

(m) INFORMATION ABOUT BID PROCESS

For the smooth bid process, the information regarding bid process shall be displayed both on website and on the notice board of the Director, Maharashtra Fire Services as and when required. All the prospective bidders are suggested to take cognizance of the same.

(n) PRE- BID MEETING:-

THE PRE BID MEETING SHALL BE HELD IN PRESENCE OF COMMITTEE CONSTITUTED BY GOVT. OF MAHARASHTRA FOR RATE CONTRACT

(o) PERIOD OF VALIDITY OF BIDS

- i. The Bids shall be valid for a period of "180 Days" from the closing date for submission of the Bid. A Bid valid for a shorter period may be rejected as non responsive. Till completion of the validity period, unless the Bidder withdraws his Bid in writing, it will be deemed to be valid until such time that the Bidder formally (in writing) withdraws his Bid.
- ii. In exceptional circumstances, at its discretion, MFS may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by fax or email).

(p) VALIDITY OF RATE CONTRACT PERIOD

The Rate contract period should be of 2 years from the date of signing the Contract.

(q) LATE TENDER OFFERS

Any Tender Offer received by the Purchaser after the deadline prescribed for

submission of the same, pursuant to the clause above, will be rejected without assigning any reason thereof.

(r) TAXES AND DUTIES

The Offer should be comprehensive enough to include of all applicable and prevailing taxes, Cess duties, levies, surcharges etc, may be indicated with due break up of the same. in the covering letter. The rates quoted by the Bidder shall be deemed to be including all the taxes such as, MST, CST, VAT, Excise duty, Work Contract Tax , Service Tax, duties, levies, surcharges, etc. in force prevailing on the date of opening of Tender. (But excluding Octroi/ CESS ON ENTRY OF GOODS/ LOCAL BODY TAX) No extra payment will be made on any ground whatsoever.

(s) TENDER OPENING

The Tenders shall be opened before the members of committee constituted by the Government of Maharashtra for Rate contract. Minimum 3 members shall be present including the Director, MFS. Presence of Committee Member from the Finance Dept. is essential. The Bids will be opened in the presence of the Bidders or their representatives in case the Bidders are unable to present. However, it shall be the duty of the Bidder to ensure that either he or his representatives are present at Tender Opening and in no case shall MFS or the RC Committee be liable to cancel or postpone the Tender Opening if any or all Bidders are absent (either themselves or their representatives) at the venue of Tender Opening at prescribed time. The Director, Maharashtra Fire Services, Maharashtra will open the Technical Bids and list them for further evaluation. The Commercial Bid covers shall be listed and shall not be opened until the evaluation of the 'Technical Bid' is over. The Commercial Bids of only those Bidders who have successfully completed qualifying criteria in Technical Evaluation will be opened. **Director, Maharashtra Fire Services, reserves the right at any time to postpone or cancel a scheduled Tender Opening.**

(t) PRE QUALIFICATION CUM TECHNICAL EVALUATION PARAMETERS

Criteria	Particulars	Equivalent Marks
1	Manufacturing capacity & efficiency based on supporting documents;	
1.1	Experience in the field of Manufacturing of Turn Table Ladders as per the standards mentioned this Tender document	15
	Grade 1 10 years 2 > 10 – 15 years 3 >15- 20 years 4 > 20 years and above	5 7 10 15
1.2.	Satisfactory Performance certificate from the users such as Fire services, Govt. Organizations and MNC's across the globe for execution of similar type of Job specified in this tender document	10
	Grade 1 10 certificates 2 > 10 - 12 certificates 3 > 12 - 15 certificates 4 > 15 certificates	3 5 7 10
1.3	Designing, fabrication commissioning, testing of fire TTL in last 3 years	15
	Grade 1 100 TTL (qualification criteria) 2 > 100-125 TTL 3 > 125 - 150 TTL 4 > 150 TTL	5 7 10 15
1.4	Designing, fabrication commissioning, testing and Supply of Turn Table Ladders in India for last 3 years	15
	Grade 1 2 TTL (qualification criteria) 2 > 2 – 4 TTL 3 > 4 - 6 TTL 4 > 6 TTL	3 7 10 15
1.5	Designing, fabrication commissioning, testing of Turn Table Ladders in last 3 years supplied to ULB's/ SPA /MNC's in the state of Maharashtra	10
	Grade 1 2 TTL 2 > 2-3 TTL 3 > 3-4 TTL 4 > 4 TTL	3 5 7 10

2	Financial Capabilities	10
2.1	Average Annual Turnover for the last 3 years	
	Grade 1 INR 100crores (qualification criteria) 2 > INR 100- 125 crores 3 > INR 125- 150 crores 4 > INR 150 crores	3 5 7 10
3	Testing facilities As per ISI Standards/ EN standards	5
	1 Yes 2 No	5 0
4	Manufacturing facility & After sales service back up in the state of Maharashtra	20
	Period:- 1 3 -5 years 2 5-7 years 3 7-9 years 4 9 years and above	5 10 15 20

(u) SHORT-LISTING OF BIDDERS

The commercial offers of only such Bidders will be opened who have met the prequalification criteria and have scored more than **60 marks** in technical evaluation.

(v) PRICE COMPARISONS

The Purchaser will evaluate Commercial Offers of only short listed technically qualified Bidders. After opening Commercial Offers of the short-listed Bidders, if there is any discrepancy exists between words and figures, the amount indicated in words will be considered.

(w) MODIFICATION AND WITHDRAWAL OF OFFERS

The Bidder may modify or withdraw his offer after its submission, provided that written notice of the modification or withdrawal is received by the Purchaser prior to the closing date of the Bids and time prescribed for submission of offers. No offer can be modified, subsequent to the closing date and time for submission of offers.

(x) PRELIMINARY SCRUTINY

Prior to the detailed evaluation, the Purchaser will determine the substantial

responsiveness of each offer to the Tender Documents. For purpose of this Clause, a substantially responsive bid is one which is in conformity with all the terms and conditions of the Tender Documents without any material deviations. The Purchaser's determination of an offer's responsiveness will be based on the contents of the Tender Offer itself without recourse to extrinsic evidence.

The office of the Director, MFS office will scrutinize the offers in respect of their completeness, submission of technical documents duly signed, etc. Only qualified Tenders will be considered for further process.

The Director, MFS, reserves the right to waive any minor infirmity or irregularity in a Tender Offer, if he finds that, it is in the interest of the Government. The decision in this regards of the DIRECTOR will be final and binding on all the Bidders.

(y) CLARIFICATION OF OFFERS

To assist in the scrutiny, evaluation and comparison of offers, the Purchaser may, at its discretion, ask some or all Bidders for technical clarification of their respective Offers. The request for such clarifications and the response shall be in writing. To speed up the Tender process, the Purchaser, at its discretion, may ask for any technical clarification to be submitted by means of facsimile or e-mail by the Bidder. In such cases, original copy of the document describing the technical clarifications must reach the Purchaser by means of courier / in person within seven days of the receipt of facsimile or e-mail.

(z) DELIVERY PERIOD: - Irrespective of number of Vehicles, each consignment of the order has to be completed within 36 weeks

(aa) COMPENSATION FOR DELAY

Irrespective of number of goods, each consignment of the order has to be completed within 60 Days. The contractor should intimate about the delivery

schedule to the Respective Purchaser, through email, telex/fax, telephone and or any other mode of communication.

In case Vendor fails to meet the above delivery schedule / period, compensation for delay in completion of contract agreement will be recovered at the rate of Rs.10,000/-per day / per vehicle , up to a period of first 15 days of delay, if the delay is more than 15 days it shall be Rs. 20,000/-

(bb) SHORT-LISTING OF BIDDERS

The commercial offers of only such Bidders will be opened who have met the prequalification criteria and **have scored more than 60 marks** in technical evaluation.

(cc) PRICE COMPARISONS

The Purchaser will evaluate Commercial Offers of only short listed technically qualified Bidders. After opening Commercial Offers of the short-listed Bidders, if there is any discrepancy exists between words and figures, the amount indicated in words will be considered.

(dd) AWARD CRITERIA

- i) Rate Contract, will be awarded to the Bidder who's Commercial Offer has been determined to be the lowest evaluated offer. However, those Bidders whose evaluated Commercial Offers are within 10% of the lowest evaluated offer may also be invited to match the prize at par with lowest bidder and those are willing to match the prize may be considered for award of work. In view of the delivery period and penalty clause if bidder may declare his exact capacity to manufacture a number of goods during the contract period.

The Commercial Offers are strictly on the basis of price competitiveness and the declaration given by the Bidders of their manufacturing capacity of delivering the number of Rescue Tools & Equipments & Thermal Imaging

Camera in one year. Each consignment of the order has to be completed within 60 Days as per the clause no.29 of general conditions of the tender.

For timely execution of work Second Lowest (L2) or Third Lowest (L3) or thereof Bidders may be considered negotiation to match their rates at par with lowest bidder of the works, if their prices are within the range of 10% higher than the lowest Bidder. It will be obligatory upon the Vendor to make the supply at the lowest evaluated offer.

- ii) However, it is the discretion of the Purchaser to choose Vendors to place Purchase Order.
- iii) The lowest rates for Additional items and consumables will be the rate accepted under this RC and it will be obligatory upon the Vendor to make the supply at this rate. On refusal of the supply, the RC of the Vendor will be cancelled, Security Deposited shall be forfeited and the vendor shall be blacklisted and an appropriate action deemed fit by the authority shall be initiated.

(ee) RIGHT TO ALTER ITEMS

The Purchaser reserves the right to delete tendered items, and also reserves the right to make change in specifications of any items subject to approval of the Director, Maharashtra Fire Services.

(ff) DEVIATIONS FROM SPECIFICATIONS

If any deviations from the above specifications are desired, the Bidder shall clearly state all such deviations in his Bid while submitting his Offer. Due consideration will be given to any special device of a attachment offered by the Bidder which is calculated to enhance the general utility of the goods or equipment

(gg) MAKES OF MATERIAL AND CERTIFICATES

Makes of material should be specified in the Tender of every Bidder and each Vendor shall submit the relevant documentary evidence for use of ISI marked material. For Imported items, the specification should be strictly adhering to European Nation (EN) Standards or Bureau of Indian Standards (BIS) and the said standards be specified and should be acceptable to RC committee, the Vendor should submit such import documents.

(hh) PURCHASER'S RIGHT OF DECISION

The Purchaser reserves the right to accept or reject any Tender Offer, and to annul the tendering process and reject all Tenders at any time prior to award of Contract, without thereby incurring any liability towards the affected Bidder(s) or any obligation to inform the affected Bidder(s) of the grounds for the Purchaser's action.

(ii) NO COMMITMENT TO ACCEPT LOWEST OR ANY TENDER

The Purchaser shall be under no obligation to accept the lowest or any other offer received in response to this tender notice and shall be entitled to reject any or all offers, including those received late, or incomplete, without assigning any reason thereof. The Purchaser reserves the right to make any changes in the terms and conditions of the Purchase. The Purchaser will not be obliged to meet and have discussions with any Bidder, and / or to give a hearing on their representations.

(jj) CORRUPT OR FRAUDULENT PRACTICES

The Purchaser requires that the Bidders under this tender observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser defines the terms set forth as follows:

- (a) "Corrupt Practice" means (i) the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering

of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Purchaser who is or has been associated in any manner, directly or indirectly with the Bidding Process or the **LOI** or has dealt with matters concerning the Rate Contract or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Purchaser, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or (ii) engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the **LOI** or after the execution of the Rate Contract, as the case may be, any person in respect of any matter relating to the Bidding Process or the **LOA** or the Rate Contract, who at any time has been or is a legal, financial or technical adviser of the Purchaser in relation to any matter concerning the Bidding Process or the goods and services attached thereto.

- (b) “Fraudulent Practice” means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
- (c) “Coercive Practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person’s participation or action in the Bidding Process;
- (d) “Undesirable Practice” means (i) establishing contact with any person connected with or employed by the Purchaser with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
- (e) “Restrictive Practice” means forming a cartel or arriving at any understanding or arrangement among the Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

If any document favouring any Bidder is seen in the concerned file which had not been submitted officially and following the procedure, it shall be treated as an evidence enough to conclude that both of the concerned Bidder and the concerned public official have indulged in to a Corrupt Practice and fraudulence and necessary action shall be initiated by the Purchaser against both of them.

In the event of Corrupt Practice, a Fraudulent Practice, a Restrictive Practice, an Undesirable Practice and/or a Coercive Practice by one or all of the Bidders, in addition to penal action as per the terms and conditions of the Contract, appropriate legal action shall be initiated against the concerned Bidders by the Purchaser.

The Purchaser will reject a proposal for award if it is prima-facie established that the Bidder recommended for award has engaged in a Corrupt Practice, a Fraudulent Practice, a Restrictive Practice, an Undesirable Practice and/or a Coercive Practice in competing for the Contract in question.

The Purchaser will declare a Bidder ineligible, either indefinitely or for a stated period of time, to be awarded a Contract if at any time it is found that the Bidder has engaged in Corrupt Practice, a Fraudulent Practice, a Restrictive Practice, an Undesirable Practice and/or a Coercive Practice in competing for, or in executing a contract.

(kk) SIGNING OF CONTRACT

The successful Bidder shall sign the agreement (DRAFT CONTRACT FORM) within fifteen days from the date of the issue of the Letter of Intent. Including Sundays and Public Holidays. Director, Maharashtra Fire Services reserves the right to grant an extension of another seven days on satisfaction of the circumstances and reasons given thereof. On failure of execution of the Contract by the successful Bidder, E.M.D. furnished by him shall be forfeited and such bidder is by default eliminated from further process. This shall lead to a liberty for purchaser to consider other bidders provided that

those agree to match pricing at par with L1 and agree to carry out the work and render the service as per terms and conditions of RC. lowest price.

Opening of Bids by Purchaser:

22.1 The Purchaser will open the packet 'A' of the bid, in the presence of Bidder's representatives who choose to attend, at 3.00 p.m. on at the following location:

The DIRECTOR (MFS)
Maharashtra Fire Services
Maharashtra,
INDIA

The Bidder's representatives who are present shall sign a register evidencing their attendance.

22.2 The Bidder's names, modifications, bid withdrawn and the presence or absence of the requisite bid security and such details as the Purchaser, at its discretion, may consider appropriate will be announced at the opening.

22.3 The Purchaser will prepare minutes of the bid opening.

22.4 The packet 'B' (Priced Bid) will be opened only after receipt of clarification if any from the tenderers. The due date of opening of packet 'B' will be communicated to the prospective tenderers or their authorized agents three days in advance.

23. Clarification of Bids:

23.1 To assist in the examination, evaluation and comparison of bids the Purchaser may, at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

24. Preliminary Examination:

24.1 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished whether the documents have been properly signed, and whether the bids are generally in order.

24.2 Arithmetical errors will be rectified on the following basis. If there is a

discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price, shall prevail and the total price shall be corrected. If the supplier does not accept the correction of the errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.

24.3 Prior to the detailed evaluation, pursuant to Clause 26, the Purchaser will determine the substantial responsiveness of each bid to the Bidding Documents. For Purposes of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the Bidding documents without material deviations. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

24.4 A bid determined as not substantially responsive will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

24.5 The Purchaser may waive any minor informality or non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking or any Bidder.

25. **Conversion to Single Currency:**

25.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which bid price is payable; to the Indian Rupees at the selling exchange rate established by the Reserve Bank of India/State Bank of India, on the date of bid opening specified in clause 22.

26. **Evaluation and Comparison of Bids:**

26.1 The Purchaser will evaluate and compare the bids previously determined to be substantially responsive, pursuant to Clause 24.

26.2 The Purchaser's evaluation of a bid will exclude and not take into account:

(a) In the case of goods manufactured in the Purchaser's country or goods of foreign origin already located in the Purchaser's country, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;

(b) In the case of group 'C' bidder, goods of foreign origin offered from abroad, customs duties and other similar import taxes which will be payable on the goods if the Contract is awarded to the Bidder.

26.3 The comparison shall be of ex-factory/ex-warehouse price of the goods

offered from within the Purchaser's country, such price to include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in the goods, and the CIF price port-of –entry of the good offered from outside the Purchaser's country.

26.4 The Purchaser's evaluation of a bid will take into account, in addition to the bid price and the price of incidental services, the following factors, in the manner and to the extent indicated in para 26.5 and in the Technical Specifications:

- (a) Cost of inland transportation, insurance and other costs within the Purchaser's country incidental to delivery of the goods to their final destination;
- (b) Delivery schedule offered in the bid;
- (c) Deviations in payment schedule from that specified in the Special Conditions of contract.
- (q) The availability in the Purchaser's country of spare parts and after-sales services for the equipment offered in the bid;
- (r) The performance and productivity of the equipment offered; and
- (s) The quality and adaptability of the equipment offered.
- (t) The number of such equipment manufactured and sold to Fire Services during the last five years.

26.5 Pursuant to Para 26.4 the following evaluation methods will be followed:

- (a) Inland Transportation, ex-factory from port of entry, insurance and incidentals. Bidder shall quote separately for inland transportation, insurance and other incidentals for delivery of goods to the MFS Fire Station in the State of Maharashtra as specified by the DIRECTOR MFS. These costs incurred in Purchaser's country shall be quoted in local currency. These costs will be added to the ex-factory / CIF bid price.

(b) **Delivery Schedule:**

- (i) The purchaser desires to have delivery of the goods covered under the invitation, at the time specified in the schedule of Requirements. The estimated time of arrival of the goods at the site from Mumbai Mumbai should be calculated for each bid after allowing for reasonable ocean and inland transportation time. Treating the bid offering the schedule time of arrival as the base, a delivery

“adjustment” will be calculated for other bids at 2% of the ex-factory /CIF price for each month of delay beyond the base and this will be added to the bid price for evaluation.

(c) **Deviation in payment schedule:**

The special conditions of Contract indicated the payment Schedule offered by the Purchaser. If a bid deviated from the schedule and if such deviation is considered acceptable to the Purchaser, the bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the bid as compared to those stipulated in this invitation, at a rate of 12 % per annum.

- (d) Spare parts and after sales service facilities in the Purchaser’s country. Prices quoted in schedule 5 and interest at the rate of 12 % per annum for 5 years on the cost of the Purchaser the minimum service facilities and parts inventories, in case of spares for imported goods only, if quoted separately shall be added to the bid price.

(e) **Performance and Productivity of the Equipment:**

Equipment offered shall have minimum productivity specified under the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of equipment offered in the bid.

27. **Contacting the Purchaser:**

27.1 Subject to Clause 23 no Bidder shall contact the Purchaser on any matter relating to its bid from the time of the bid opening to the time the Contract is awarded.

27.2 Any effort by a Bidder to influence the Purchaser in the Purchaser’s bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder’s bid.

AWARD OF CONTRACT

28. **Post qualification:**

28.1 The Purchaser will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive bid is qualified to satisfactorily perform the Contract.

28.2 The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to Clause 13, as well as such other information as the Purchaser deems necessary and appropriate.

28.3 As affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the bidder's bid, in which event; the Purchaser will proceed to the next lowest evaluated bid to make a similar determination of the Bidder's capabilities to perform satisfactorily.

29. **Award Criteria:**

29.1 Subject to Clause 32, the Purchaser will award the Contract to the successful Bidder whose bid has been determined to be subsequently responsive and has been determined as the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

30. **Purchaser's Right to Vary Quantities at time of award:**

30.1 The Purchaser reserves the right at the time of award of Contract to increase or decrease by up to 15% the quantity of goods and services specified in the Schedule of Requirements without any change in price or other terms and conditions. **Variation in the specifications/ requirements of Plus -Minus 5% to 10% shall be accepted**

31. **Purchaser's Right to Accept any Bid and to Reject any or all bids:**

31.1 The Purchaser reserves the right to accept or reject any bid, and to annul

the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

31.2 NO COMMITMENT TO ACCEPT LOWEST OR ANY TENDER

The Purchaser shall be under no obligation to accept the lowest or any other offer received in response to this tender notice and shall be entitled to reject any or all offers, including those received late, or incomplete, without assigning any reason thereof. The Purchaser reserves the right to make any changes in the terms and conditions of the Purchase. The Purchaser will not be obliged to meet and have discussions with any Bidder, and / or to give a hearing on their representations.

32 Notification of Award:

32.1 Prior to the expiration of the period of bid validity the Purchaser will notify the successful Bidder in writing by registered letter or by cable or fax, to be confirmed in writing by registered letter, that its bid has been accepted.

33.2 The notification of award will constitute the formation of the contract.

33.3 Upon the successful Bidder's furnishing of performance security pursuant to Clause 34, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to Clause 15.

33. Signing of Contract:

33.1 At the same time as the Purchaser notifies the successful Bidder that its bid has been accepted, the Purchaser will send the Bidder the Contract Form provided in the Bidding Documents, incorporating all agreements between the parties.

33.2 Within 15 days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the purchaser.

34. Performance Security:

- 34.1 Within 15 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the Bidding Documents or another Form acceptable to the Purchaser.
- 34.2 Failure of the successful Bidder to comply with requirement of clause 33 or clause 34 shall constitute sufficient grounds for the annulment of the award and forfeiture of the security, in which event the Purchaser may make the award to the next lowest evaluated bidder or call for new bid.

GENERAL CONDITIONS OF CONTRACT

1. **Definition & Interpretations:**

In the Contract the following words and expressions shall have the meanings hereby assigned to them except where the contract otherwise requires:

- (a) The “MFS” shall mean the Maharashtra Fire Services, constituted under the MID Act 1966
- (b) The “DIRECTOR” shall mean the DIRECTOR of MFS, for the time being holding the said office and also his successors and whom the powers of the DIRECTOR have been delegated under the Maharashtra Fire Prevention & Life Safety Act 2006.
- (c) The “Contractor” shall mean the individual or firm or company whether incorporated or not, undertaking the works and shall include legal representatives or such individuals or persons composing such firm or un-incorporated company or successors of such firm or company as the case may be and permitted assigns of such individual or firm or company.
- (d) The “Sub-Contractor” shall mean any person (other than the contractor) named in the Contract for any part of the Works or any person to whom any part of the Contract has been sublet with the consent in writing of the DIRECTOR and the legal personal representatives, successors and assigns of such person.
- (f) The “Engineer’s Representative” means any engineer, consulting engineer or assistant of the Engineer appointed from time to time by the DIRECTOR to perform the duties delegated.
- (g) The “Contract” shall mean the tender and acceptance thereof and the formal agreement, if any, executed between the Corporation, the DIRECTOR and the Contractor together with the documents referred to therein including their conditions, schedules and appendices and any special conditions, the specifications, design drawings any price schedule. All these documents taken together shall be deemed to form one contract

and shall be complementary to one another.

- (h) “Expected risks” are risks due to riots (otherwise than among Contractors employees) and civil commotion (in so both these are uninsurable), war (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any act or Government, damage from air craft, acts control and accepted as such by the DIRECTOR or causes solely due to use or occupation by the of the works in respect of which a certificate of completion has been issued or a cause solely due to faulty Municipal design of the works.
- (i) The “Works” shall mean the supply of Aerial Platform Ladder 68 Mtrs and the equipment in relation to thereof & in accordance with the Contract.
- (j) The “Site” shall mean the land and/or places, at which the plant is to be installed including any other lands or places, which may be allotted by the DIRECTOR MFS or used for the purpose of the Contract.
- (k) The “Contract Price” shall mean the sum named in the tender, subject to such additions thereto or deductions there from as may be made under the provisions hereinafter contained.
- (l) The “Contract Value” shall mean that part of the Contract price which is properly apportionable to the plant or work in question having regard to the state, condition and topographical location of the plant, the amount of work done, and all other relevant circumstances, and disregarding any changes that may have occurred since the date of the contract in cost of executing the works.
- (m) “Time of Completion shall mean the time for completion mentioned in the tender for the supply of the plant and shall commence from the date of placing the order or from the date of Letter of Credit as the case may be.
- (n) The “Plant” shall mean machinery, apparatus, materials, articles and things of all kinds to be provided under the Contract.
- (o) The “Specification” shall mean the specification annexed to or issued with these General Conditions.
- (p) The “Month” shall mean calendar month.
- (q) The “Writing” shall mean any manuscript, typewritten or printed statement under Seal or hand.
- (r) “CIF Cost” shall mean the cost of the plant free on board at the time of shipment plus the cost of marine freight and insurance of the equipment upto the designated port of Mumbai. CIF cost is applicable only in the case of imported plant.

- (s) "FOR Cost" shall mean the cost of the plant free on rail at any designated Fire Station in the state of Maharashtra; The cost is inclusive of sales tax and all other local taxes.
 - (t) "**Services**" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services applicable, such as installation, commissioning, provision of technical assistance, training, on-site comprehensive warranty, annual maintenance and other obligations of the Supplier covered under this Contract or the Tender Document.
 - (u) "The Purchaser" means
 - i) Director, Maharashtra Fire Services, Govt. of Maharashtra.
 - ii) Urban Local Bodies (ULBs)
 - iii) Special Planning Authorities (SPAs)
 - iv) State Govt. or State Govt. Undertakings, Enterprises, Organizations or Companies.
 - (v) "The Supplier" means the individual or Firm supplying the goods under this Contract.
 - (w) "**Applicable Law**" means any law, rule, regulation, ordinance, notification, circular, order, code, treaty, judgment, decree, injunction, permit or decision of any central, state or local government, authority, agency, court, tribunal, regulatory body or other body having jurisdictional over the matter(s) in question, as in effect from time to time.
 - (x) "**Bidder**" means an eligible manufacturer who had placed his bid or offer for the goods and services against the invitation to Tender under the Tender Document.
 - (y) "**Fire Tender**" shall mean Turn Table Ladder (TTL)
 - (z) "**Gross Negligence**" means any act or failure to act by a Party which was in reckless disregard of or gross indifference to the obligations of the Party under the Contract and which causes harmful consequences to life, personal safety or real property of the other Party which such Party knew, or would have known if it was acting as a reasonable person, would result from such act or failure to act. Notwithstanding the foregoing, Gross Negligence shall not include any action taken in good faith for the safeguard of life or property.
- A) "Agency" means an agency which has been selected as per the process stipulated in this Bid document/ Tender document
 - B) "Contract" means the agreement entered into between the Purchaser and a successful Bidder, as recorded in the DRAFT CONTRACT FORM signed by the

DIRECTOR and the successful Bidder, including all the attachments and appendices thereto, and all documents incorporated by reference therein;

- C) "Goods" means all the equipment, machinery, and/or other materials which the Bidder is required to supply to the Purchaser under the Contract;
- D) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services applicable, such as installation, commissioning, provision of technical assistance, training, on-site comprehensive warranty, annual maintenance and other obligations of the Bidder covered under the Contract.

E) Abbreviations :-

- a. RC:- Rate Contract
- b. ULBs :- Urban Local Bodies
- c. SPAs - Special Planning Authorities
- d. EMD :- Earnest Money Deposit
- e. DD :- Demand Draft
- f. BG :- Bank Guarantee
- g. MFS :- Maharashtra Fire Services
- h. TTL – Turn Table Ladder
- i. EN :- European Nations standards

- F) **“Standards”** means **EN 14043 / EN 1777 AND OR “JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK**
- G) **OR** an equivalent standards meeting the criteria’s laid down in EN standards and other norms and standards applicable for elevated raised platforms used for Fire Fighting and rescue operations to various Fire Services
- (I) **“Letter of Intent”** shall mean the letter of intent dated ____ issued by the Purchaser favouring the Supplier.
- (J) **“Purchase Order”** shall mean any order for the procurement of Goods place by a Purchaser Party with the Supplier.
- (K) **“Tender Document”** means the Tender issued by the Purchaser for the purpose of procuring goods and services related to designing, commissioning, fabrication and testing for Fire Tender for the benefit of the Purchaser Parties and shall include the Invitation of Tender, Instructions to Bidders, Terms and Conditions of Contract, Detailed Specifications for Fire Tenders and the Schedules, Annexure or addendum thereto, as may be amended from time to time.
- (L) **“Willful Misconduct”** means an intentional disregard of any provision of this Contract which a Party knew or should have known if it was acting as a

reasonable person, would result in harmful consequences to life, personal safety or real property of the other Party but shall not include any error of judgment or mistake made in good faith.

(M) All the terms not defined under this Contract shall have the same meaning as assigned to them under the Tender Document.

2. **Application:**

2.1 These General Conditions shall apply to the extent that the provisions in other parts of the contract do not supersede them.

3. **Country of Origin: -**

3.1 All Goods and Services supplied under the Contract shall have their origin in the member countries. These rules are explained under the Special Conditions of Contract.

3.2 For purposes of this Clause "Origin" means the place where the Goods were mined, grown or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing or substantial or major assembling of components, a commercially recognized new product results that is substantially different in basis, characteristics or in purpose or utility from its components.

3.3 The Origin of Goods and Services is distinct from the nationality of the Supplier.

4. **Standards:**

4.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specification and when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods country of origin and such standard shall be the latest issued by the concerned institution.

5. **Use of Contract Documents and Information:**

5.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision, thereof or any specification, plan, drawing, pattern, sample or information furnished by or in behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract, Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purpose of such performance.

5.2 The Supplier shall not, without the Purchaser's prior written consent, make use of

any document or part of document or information enumerated in para 5.1 except for purpose of performing the Contract.

5.3 Any document, other than Contract itself, enumerated in para 5.1 shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

6. **Patent Rights etc:**

6.1 The supplier shall fully indemnify the Corporation against all actions, claims demands, costs, charges and expenses arising from or incurred by reasons of any infringement of letters patent, design or copyright protected in the Contractor's country or in the country in which the Goods is to be used, by the use of any goods supplied by the Contractor, but such indemnity shall not cover any use of the goods otherwise than for the purpose indicated by or reasonably to be inferred from, the specification.

In the event of any claim being made or action brought against the Corporation arising out of the matters referred to in this clause the Contractor shall be promptly notified thereof and may at his own expense conduct all negotiations for the settlement of the same and any litigation that may arise there from. The Corporation shall not, unless and until the Contractor shall have failed to take over the conduct of the prejudice thereto. The conduct by the contractor of such negotiations, Or litigations shall be conditional upon the Contractor having first given to the Corporation such reasonable security as shall from time to time be required by the Corporation to cover the amount ascertained or agreed of estimated as the case may be of any Compensation, Damages, expenses and costs for which the Corporation may become liable in respect of such infringement as aforesaid. The Corporation shall, at the request of the Contractor afford all available assistance for the purpose of contesting any such claim or action and shall be repaid any expenses incurred in so doing.

7. **Performance Security:**

7.1 Within 15 days after the Supplier's receipt of notification of award of the Contract, the Supplier shall furnish performance security to the Purchaser in the amount specified in the Special Conditions of Contract.

7.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its

obligations under the contract.

7.3 The Performance Security shall be denominated in the currency of the Contract or in a freely convertible currency acceptable to the Purchaser, and shall be in the form of a Bank Guarantee from Bank mentioned in the approved list of Banks.

7.4 The Performance security will be discharged by the Purchaser and returned to the Supplier not later than 30 days following the date of completion of the supplier performance obligations, including any warranty obligations, under the contract.

8. **Inspection and Tests**

8.1.1 The Purchaser or its representatives shall have the right to inspect and/or to test the goods to confirm their conformity to the Contract. The Special Conditions of Contract and/or the Technical Specifications shall specify what inspections and test the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing of the identity of any representatives retained for these purposes.

8.1.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Good's final destination. When conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance including access to drawing and production data shall be furnished to the inspectors at no charge to the Purchaser.

8.1.3 Should any inspected or tested goods fail to conform to the specifications, the Purchaser may reject them and the Supplier shall either replace the rejected goods or make all alterations necessary to meet specification requirements free of cost to the Purchaser.

8.1.4 The Purchaser's right to inspect, test and where necessary, reject the goods after the goods arrival in the Purchaser's country shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment from the country of origin.

8.1.5 Nothing in clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

9. Packing:

- 9.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and open storage packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract and subject to Clause 10, in any subsequent instructions ordered by the purchaser.
- 9.3 **Prices quoted in tenders and in the Contract shall include the cost of packing** or protector required under normal transport conditions to prevent damage to or deterioration of the goods before its destination as stated in the contract.

10. Delivery and Documents:

- 10.1 No goods shall be shipped or delivered until an intimation in writing has been received by the supplier from the DIRECTOR or Purchaser , that the goods may be delivered.
- 10.2 Before dispatch from the Contractor's works all goods shall be adequately protected by painting or by other suitable means for the whole period of transit and storage in a tropical humid climate prior to use, against corrosion and incidental damage including the effects of vermin, strong sunlight, rain, high temperature and humid or salty atmosphere or sea spray. The supplier shall be held responsible for the goods being so protected as to ensure that as far as is practicable it reaches its ultimate destination intact and undamaged.
- 10.3 The supplier shall be deemed to have included in the bid prices for all material and packing crates or cases appropriate to the particular item of goods necessary for the safe package, conveyance and delivery of the goods.
- 10.4 Detailed instruction including the name (names) of ultimate consignee (consignees) shall be furnished to the Contractor separately after the Contract is awarded. The contractor shall arrange to consign the material accordingly and ensure that each box or unit of shipment is legibly and properly marked for correct identification. Failure to comply with this requirement shall render the

Contractor liable for any additional expenses involved.

- 10.5 The Contractor shall give complete shipping information concerning the weight, size and content of each package including any other information the Corporation may require.
- 10.6 Transshipment of goods shall not be permitted except with the written permission of the Corporation.

For Foreign Goods

The following documents shall be airmailed to Purchaser within 7 days from the date of shipment:

- (f) Three copies of the Supplier's invoice showing Goods description, quantity, unit price, total amount:
- (ii) Original and duplicate copies of the negotiable, clean on-board bill of lading marked freight prepaid and two copies of no-negotiable bill of lading:
 - a. Three copies of packing list identifying contents of each package:
 - b. Valid Insurance Certificate in triplicate
 - c. Manufacturer's/Supplier's guarantee certificate in duplicate.
 - d. Three copies of Inspection certificate, issued by the nominated inspection agency and the Supplier's factory inspection report: and
 - e. Certificate of origin in duplicate

For Domestic Goods, If any

Telephonic instructions shall be sent to the Consignee immediately the goods are booked and the following documents shall be sent to the Purchaser by registered mail the same day:

- (i) Three copies of the Supplier invoice showing goods description, quantity, unit price, total amount:
- (ii) Delivery note/railway receipt/truck receipt
- (iii) Manufacturer's Supplier's guarantee certificate
- (iv) Valid Insurance Certificate
- (v) Three copies of Inspection certificate issued by the nominated inspection agency and the Supplier factory inspection report:

- (vi) Certificate of origin: and
- (vii) Three copies of packing list

11. **Insurance of Plant:**

- 11.1 The Contractor shall provide for insurance coverage for an amount equal to the CIF or FOR value as appropriate plus an additional 10 per cent thereof and the same shall extend from the date of dispatch of the goods until its arrival at the final designated destination from Mumbai Port. The insurance policy should provide coverage against all risks, including those of wars riot, strikes and malicious damage.
- 11.2 If the Contractor shall fail to effect and keep in force such insurance the Purchaser may effect and keep in force and such insurance and pay such premium or premium as may necessary for that purpose and from time to time deduct the amount paid by Purchaser the from payment due or which may become due to the Contractor or recover the same as a debt from the Contractor.
- 11.3 If the goods or any portion thereof is damaged or lost during transit, the purchaser shall give notice to the Contractor setting forth particulars of such goods damaged or lost during transit. The replacement of such goods shall be effected by the Contractor within 15 days from the receipt of such notice to avoid unnecessary delay in supply of goods. The replacement price of items shall be recovered by the Contractor from the insurance coverage provided for this purpose. The import license/port clearance, permit, etc. in respect of a foreign supply contract, required for the purpose shall be made available by the Corporation for such goods. In the case of contracts awarded to domestic contractors, the replacement of goods damaged during transit shall be made free of cost by the Contractor.

12. **Transportation:**

- 12.1 The goods are to be delivered at the site of the purchasers Fire station specified by Purchaser in the state of Maharashtra (India). Prices shall be inclusive of cost of the goods free on board at the time of shipment plus the cost of marine freight, land freight and insurance of the goods from the Manufacturers ware house to the site Purchasers Fire station specified by DIRECTOR, MFS or the purchaser in the state of Maharashtra (India)

13. **Incidental Services:**

- 13.1 As specified in the Special Conditions of Contract, the Supplier may be required to provide any or all of the following services;
- (a) Performance & supervisions of on-site assembly and start-up of the supplied goods.
 - (b) Furnishing of tools required for assembly and maintenance of the

supplied goods.

- (c) Furnishing of a detailed operations & maintenance manual for each appropriate unit of the supplied goods.
- d) Performance, supervision, maintenance and repair of the supplied Goods, for a period of time agreed by the parties, provided that his service shall not relieve the supplier of any warranty obligations under this contract, and
- e) Conducting Training of the Purchaser's personnel, at the Supplier's plant and on-site, in assembly, start-up, operations, maintenance and repair of the supplied goods.

15. Warranty

- 15.1 The Supplier warrants that the goods supplied under the Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that the Goods supplied under this Contract shall have to defect arising from design, materials or workmanship (except insofar as the design or materials is required by the Purchaser's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied goods in the in the conditions obtaining in the country of final destination.
- 15.2 This warranty shall remain valid for 36 months after the goods or any portion thereof as the case may be, have been delivered to the final destination indicated in the Contract, unless specified otherwise in the Special Conditions of Contract.
- 15.3 The Purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the Supplier shall, with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the Purchaser other than, where applicable, the cost of inland delivery of the repaired or replaced goods or parts from the port of entry to the final destination, including custom duties.
- 15.5 If the Supplier, having been notified, fails to remedy the defect(s) within a reasonable period, the purchaser may proceed to take such remedial action as may be necessary at the Supplier's and expenses and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

16. Payment:

- 16.1 The method and conditions of payment to be made to the Supplier under Contract are specified in the Special Conditions of Contract.
- 16.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and services performed, and by shipping documents, submitted pursuant to clause 10, and upon fulfillment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly within Maximum thirty (30) days of submission of an invoice/claim by the Supplier.
- 16.4 Payment will be made in the currency or currencies in which the Contract price has been stated in the Supplier's bid as well as in other currencies in which the Supplier had indicated in its bid that it intends to incur expenditures in the performance of the Contract and wishes to be paid.

17. Prices

- 17.1 Prices charged by the Supplier or goods delivered and Services performance under the contract shall not, vary from the prices quoted by the Supplier in its bid.

18. Change Orders:

- 18.1 The Purchaser may at any time, by a written order given to the Supplier pursuant to clause 31, make changes within the general scope of Contract in any one or more of the following: -
 - (a) Drawings, designs or specifications, where goods to be furnished under the contract are to be specifically manufactured for the Purchaser.
 - (b) The method of shipment or packing.
 - (c) The place of delivery, or;
 - (d) The services to be provided by the Supplier.
- 18.2. If any such change causes an increase or decrease in the cost of, or the time required for, the supplier's performance of any part of the work under the Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claim by the supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

19. **Contract Amendment:**

19.1 Subject to clause 18, no variation in or modification of terms of the contract shall be made except by written amendment signed by the parties.

20. **Assignment:**

20.1 The Supplier shall not assign, in whole or in part its obligations to perform under the Contract, except with the Purchaser's prior written consent.

21. **Sub – Contracts**

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the contract if not already specified in his bid, such notification, in his original bid or later shall not relieve the supplier from any liability or obligation under the Contract.

21.2. Subcontracts must comply with the provision of Clause 3

22. **Delays in the Supplier's performance:**

22.1 Delivery of the goods and performance of Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in its schedule of Requirements.

22.2. An unexpected delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to any or all of the following actions, forfeiture of its performance security, imposition of liquidated damages, and/ or termination of the Contract for default.

22.3. It at any time during performance of the Contract, the Supplier or its subcontractor (s) should encounter conditions impeding timely delivery of the goods and performance of services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay its likely duration and its cause (s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the contract.

23. **Liquidated Damages:**

23.1 Subject to Clause 25, if the Supplier fails to supply any or all of the goods or perform the services within the time period (s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the contract price as liquidated damages, a sum equivalent to half

percent of the delivered price of the delayed goods or unperformed services for each week of delay until actual delivery or performance, upto a maximum deduction of 10% of the delayed goods or services contract price. Once the maximum is reached the Purchaser may consider termination of the contract.

24. Indemnity

The Supplier shall indemnify, defend and hold harmless the Purchaser and its respective officers, directors, employees, representatives and agents as well as the Purchaser Parties ("Indemnified Parties"), from and against any and all suits, actions, liabilities, legal proceedings, claims, demands, losses, costs and expenses of whatsoever kind or character, including without limitation, reasonable attorneys' fees and expenses, for injury or death of third parties or loss of or damage to property of third parties or any other loss or damage caused to the Indemnified Parties, whether direct or indirect, arising as a result of or in connection with (i) any failure on the part of the Supplier to perform its obligations under the Contract or the Tender Document, (ii) any breach on the part of the Purchaser of terms, conditions, representations or warranties under the Contract or the Tender Document, (iii) any negligent acts or omissions or Willful Misconduct by the Supplier or anyone acting on Supplier's behalf or (iv) any violations of safety procedures, prescribed by the Purchaser or any Applicable Law or any Government Authority, by the Supplier or its employees, agents, representatives or independent contractors or (v) any faulty vehicle, Goods or Services provided by the Supplier (vi) any infringement of any patent, trademarks, copyrights or any other Intellectual Property Rights or statutory infringements in respect of all the Goods supplied by the Supplier.

27 Termination for Convenience:

27.1 Notwithstanding anything contained under this Contract, the Purchaser reserves the right to terminate by prior written notice, the whole or part of the Contract without prescribing any reasons thereof. The notice of termination shall specify that termination be for the Purchaser's convenience, the extent to which performance of work under the Contract is terminated and the date on which such termination becomes effective. Upon termination of this Contract, the Purchaser shall have the right to enter into an agreement with any third party for the completion of work or hiring services similar to that of the Supplier and shall in no way be answerable to the Supplier for such acts. Upon termination, the Purchaser shall compensate the Supplier to the extent of works completed by the

Purchaser provided that the Purchaser shall be entitled to deduct from such compensation, an amount equivalent to the losses caused to the Purchaser, any amount due from the Supplier as on the date of termination, all the damages caused to the Purchaser, etc.

27.2 The Goods that are complete and ready for shipment within 30 days after the Suppliers receipt of notice of termination shall be purchased by the purchaser at the Contract terms and prices. For the remaining goods, the Purchaser may elect:

- (a) To have any portion completed and delivered at the Contract terms and prices, and or
- (b) To cancel the remainder and pay to the Supplier an agreed for partially completed goods and for materials and parts previously procured by the Supplier.

28 Settlement of Disputes:

28.1. Except as otherwise specifically provided in the contract all disputes questions of fact arising under the contract shall be decided by the purchaser subject to a written appeal by the Contractor to the purchaser whose decision shall be final to the parties hereto.

28.2 Any disputes or difference including those considered as such by only one of the parties arising out of or in connection with this Contract shall be to the extent possible settled amicably between the parties.

28.1 If amicable settlement cannot be reached then all disputed issue shall be settled by Arbitration as provided in Clause 12 of special conditions of contract.

29. Governing Language:

29.1 The contract shall be written in the language of the bid, as specified by the Purchaser in the instructions to Bidders, subject to clause 30, that language version of the contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties shall be written in that same language.

30. Applicable Law:

30.1 The contract shall be interpreted according to and subject to the Laws of India, and under the jurisdiction of the courts of Mumbai , Maharashtra (India).

31. Notices:

- 31.1 Any notices given by one part of the other pursuant to the Contract shall be sent in writing or by telegram or telex/cable and confirmed in writing to the address specified for the purpose in the Special Conditions of Contract.
- 31.1 A notice shall be effective when delivered or on the notice's effective date, whichever later.

32. Taxes and Duties:

- 32.1 A foreign Supplier shall be entirely responsible for all taxes, stamp duties, license fees and other such levies imposed outside the Purchaser's country.
- 2.1 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc, incurred until delivery of the contracted goods to the Purchaser.

33. Termination of Contract

33.1.Default

The Purchaser may, without prejudice to any other remedy for breach of contract, by one week written notice of default sent to the Supplier, terminate the contract in whole or in part:

- i. If the supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser; pursuant to clause no.22 or
- ii. If there occurs serious discrepancy in supply of Goods or its certification is noticed during the Contract period; or
- iii. If there is a breach by the Supplier of any of the terms and conditions of the Contract or the Tender Document; or
- iv. If the Supplier fails to perform any of its duties and/or obligations provided under the Contract or the Tender Document; or
- v. If the Supplier goes in to liquidation voluntarily or otherwise; or
- vi. If the Supplier fails to perform any other obligation(s) under the Contract; or
- vii. If the Supplier, in the judgment of the Purchaser has engaged in a Corrupt Practice, a Fraudulent Practice, a Restrictive Practice, an Undesirable

Practice and/or a Coercive Practice in competing for or in executing the Contract.

- 34.2 Upon termination, the Purchaser shall compensate the Supplier to the extent of works completed by the Purchaser provided that the Purchaser shall be entitled to deduct from such compensation, an amount equivalent to the losses caused to the Purchaser, any amount due from the Supplier as on the date of termination, all the damages caused to the Purchaser, etc.

1. SECURITY DEPOSIT – CUM- PERFORMANCE GUARANTEE

Every successful Bidder shall furnish a Security Deposit within a period of seven days from the signing of the Contract as follows:

Security Deposit - cum- performance guarantee of Rs. 1,00,00,000/- (Rs. One Hundred Lakhs only) {i.e. Rs. 1 Crores} in the break up as provided below -

1. Security Deposit of Rs. 100,00,000/- (Rupees **One Hundred** Lakhs only) - The EMD worth Rs. 25,00,000/- provided by the successful Bidder shall be adjusted partly against the Security Deposit – cum – Performance Guarantee. The EMD shall, on the signing of the Contract, be converted into a Security Deposit of Rs. 25,00,000/-
2. Security Deposit of remaining Rs. 75,00,000/- (Rupees Seventy five Lakhs only) - The remaining amount of Security Deposit - cum- Performance Guarantee i.e. Rs. 75,00,000/- (Rupees Seventy five Lakhs Only) shall be provided in the form of a Bank Guarantee issued by any Nationalised bank in favour of “**Fire Adviser to the Government of Maharashtra**”, Mumbai. This Bank Guarantee shall be submitted in the format specified in **SECURITY DEPOSIT CUM PERFORMANCE GUARANTY FORM (Annexure K)** provided in the Tender Document.

The Security Deposit shall be refunded to the concerned Vendor after 3 months of expiry of the Contract or after 3 months of successful completion of the Purchase Order placed before the Vendor under the Contract, whichever is later, after deducting the penal amount, if any. The Security Deposit -cum- performance guarantee may be forfeited in case of violation of terms of the Tender. Vendors having any pending work with them or of those cases, if release under any dispute or contrivances shall not be entitled for the refund of Security Deposit or performance warranty.

2. QUALITY OF GOODS

The equipment/product must conform to the highest quality and standard specified in Tender Document. Vendor should guarantee that the items delivered to the purchaser are brand new. All tools/ motors/ machines must be supplied with their original and complete printed documentation and technical specifications and Test Certificates, if any. For imported items, the Vendor should

submit the import documents.

Consistency must be maintained for the entire lot of the Rescue Tools & Equipments & Thermal Imaging Camera. All the required items in schedule of requirement must be of the same brand and of the same or higher technical specification.

All the equipment should be supplied with the relevant Indian or international standards, where ever the Indian standards are not in existence the decision of Director, MFS in this regard will be final.

3. INSPECTION

- The DIRECTOR, MFS and or his authorized representative will carry out the inspection and the testing of the fully built vehicle at the factory premises of the vehicle manufacturer prior to dispatch. The traveling and accommodation cost shall be included in the basic cost of the vehicle.
- Director, Maharashtra Fire Services or his authorized representatives will carry out the stage-wise inspection.
- Inspection will be carried out at the Manufacturers factory premises at the country of origin.
- ALL Expenses of inspecting team members should be borne by the contractor. To and from expenses towards the traveling of the team members by minimum Railways AC- class II or Air Fare to the nearest destination and local transport and lodging and boarding of optimum standards from the journey place to the works will be borne by the successful bidder and the offer shall contain all such expenses.
- It is obligatory to the supplier to provide all the assistance and equipment for the inspection and testing of the vehicle at their premises
- The Vendor will have to submit in detailed Quality Control Procedures and standards adopted in the manufacturing process.
- In case if work order are received by the vendor in bulk quantity vendor shall prepare the batch inspection schedule to avoid time and effort of inspection team.
- Vendor shall submit the probable schedule of stage wise inspection well in advance. The Goods will be delivered only after Final stage inspection is completed.

Stage wise Inspection

Advance notice of at least 2 week should be given by the Vendor, however, the Vendor must keep the goods ready for stage wise inspection before giving such notice. Purchase reserves the right for carrying the immediate inspection after receiving such notice for inspection.

The stages of inspection will be as under:-

Site Inspection for checking various test carried out in relation to Operations.

Site Inspection in relations to operating procedure, dimensions etc. as mentioned in Annexure A. Acceptance Test.

4. INSURANCE

(A) Cost of TO & FRO Transit Insurance of the goods should be borne by the Vendor to the satisfaction of the Purchaser. The Vendor should insure the goods and shall also obtained full comprehensive insurance to cover the fire & general Risk, while its transportation from the authorized dealer of the goods as specified by the Director, Maharashtra Fire Services or any other Purchaser,

The goods should be insured by the Vendor even at the time of supply of goods to the fire station. The Comprehensive insurance shall be till the goods are supplied to the purchaser. All the insurance policies shall be in the name of Director, Maharashtra Fire Services or any other Purchaser the case may be, Insurance claims, if any should be settled by the Vendor. It is the responsibility of the Vendor to insure the complete goods & equipments till the delivery on site as specified by the Purchaser.

B) In case of any damage to goods while in transit from to and fro to respective destination due to accident, theft, riots, strikes or any reasons there of it shall be the vendors responsibility to either process the insurance claims at his own cost to compensate the purchaser 100% of damage and there shall be no hardship to Govt. purchaser.

5. WORKMANSHIP AND MATERIAL

Workmanship executed shall be of high order. All directions and instructions (oral or in writing) on all points relative to the mode or manner of carrying out the works or as to the nature and quality of materials used or workmanship executed whenever given by the Director, Maharashtra Fire Services shall be received and complied with by the successful Bidder.

6. DELIVERY AND DELIVERY DOCUMENTS

After completion of work, free delivery of the goods should be given at the concerned ULBs/SPAs Fire Stations in the State of Maharashtra, or as per the instructions of Purchaser without any extra cost for transportation. Delivery period should be as specified in the tender.

The successful vendor should intimate the respective Purchaser through email, telex/fax, telephone and or any other mode of communication, the details of the goods which will be delivered at the respective fire stations. These details must include:

1. Transit Insurance policy number
2. Import Documents
3. Papers related to approval from Competent Authority, if any.
4. Hydro testing papers, if any.
5. Any other invoice particular to the goods to be delivered.

7. ACCEPTANCE TEST

The Vendor, at the destination site, in the presence of authorized persons from the Purchaser or Director, MFS or its nominated officers, will conduct acceptance test of the goods delivered. The tests will involve trouble free operation of the goods under circumstances as envisaged by the Purchaser. There should not be any additional charges payable by the purchaser for carrying out this acceptance test

8. BREACH OF CONTRACT

If any of the terms and conditions of this Tender Document or the Contract are violated or if the goods supplied by the Vendor do not meet specified standards or fail the acceptance test, the event shall amount to the breach of contract. In such an event, the Vendor shall be given a time of 30 days to cure the breach and if the breach remains uncured even after the cure period of 30 days, then the Purchaser may at its discretion terminate this Contract without assigning any reason thereof. In the event that the Purchaser terminates this Contract, without prejudice to any other remedy available to the Purchaser under this Contract or under any law, the Purchaser shall be entitled to invoke the Security Deposit and forfeit the amount as well as proceed for any other appropriate action. The Vendor shall indemnify the Purchaser of all the losses directly or indirectly occurring to the Purchaser from such breach. In case if the defect related to the equipment is cured by the Vendor during the cure period, the equipment will be accepted by the Purchaser only after complete commission and satisfactory functioning of equipment for a minimum period of 90 days. The warranty period will commence only on acceptance (based on acceptance test) of equipment by the respective purchaser.

9. OPERATIONAL TRAINING

The Vendor shall, at its own cost, train at least four users for six working days (full-time) for operation of all the equipment supplied and installed by it. The training will be as per the satisfaction of the client / end user. The Training should be carried out at the Manufacturers factory premises at the country of origin.

10. FACILITY OF AFTER SALES SERVICE

The successful Bidder shall have the facility to give after sales service in the state of Maharashtra and shall be responsible to give free service for the period of 3 years as per the maintenance schedule. This includes spares, labour, material for goods.

11. LIQUIDATED DAMAGES FOR DELAYED SUPPLY

If the Vendor fails to deliver any or all of the equipment/product or does not perform the Services within the time period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Payable Amount, as liquidated damages, a sum equivalent to one percent of the price of the undelivered goods at the stipulated rate for each week or part thereof during which the delivery of such goods may be delayed subject to a maximum limit of 20% of the stipulated price of the goods so

undelivered. Such penalty is to be deducted always by the Purchaser from the bill of the Vendor.

Once the maximum of the damages above is reached, the Purchaser shall be entitled to forfeit the Security Deposit and may consider termination of the Contract. The Purchaser may agree to take another Security Deposit in the form of a bank guarantee of the 20% of the Contract value and give further extension.

12. TERMINATION FOR DEFAULT

The Purchaser may, without prejudice to any other remedy for breach of contract, by one week written notice of default sent to the Vendor, terminate the contract in whole or in part:

- a) If the vendor fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser or
- b) If there occurs serious discrepancy in supply of goods or its certification is noticed during the Contract period.
- c) If there is a breach committed or such breach is not cured by the Vendor of any of the terms and conditions of the Tender.
- d) If the Vendor goes in to liquidation voluntarily or otherwise.
- f) If the Vendor fails to perform any other obligation(s) under the Contract.
- g) If the Vendor, in the judgment of the Purchaser has engaged in a Corrupt Practice, a Fraudulent Practice, a Restrictive Practice, an Undesirable Practice and/or a Coercive Practice in competing for or in executing the Contract.

Upon termination, the Purchaser shall compensate the Vendor to the extent of works completed by the Purchaser provided that the Purchaser shall be entitled to deduct from such compensation, an amount equivalent to the losses caused to the Purchaser, any amount due from the Vendor as on the date of termination, all the damages caused to the Purchaser, etc.

13. TERMINATION OF INSOLVENCY

The Purchaser may at any time terminate the contract by giving written notice to the Vendor, if the Vendor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Vendor, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

14. FORCE MAJEURE

“Force Majeure” means an exceptional event or circumstance:

- a. which is beyond a vendors control,
- b. which such vendors could not reasonably have provided against before entering into the Contract,
- c. which, having arisen, such vendor could not reasonably have avoided or overcome, and
- d. which is not substantially attributable to the other vendor.

“Force Majeure shall mean the following exceptional events or circumstances, so long as conditions (a) to (d) above are satisfied:

- i. war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- ii. rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war,
- iii. riot, commotion, disorder, strike or lockout by persons other than the Contractor’s Personnel and other employees of the Contractor and Sub-contractors,
- iv. weapons of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor’s use of such munitions, explosives, radiation or radioactivity, and
- v. Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

If the Vendor is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give a written notice to the other Purchaser of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Vendor became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

The Vendor shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them. Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of the Vendor to make payments if any to the Purchaser under the Contract.

The Vendor shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. It shall be the duty of the Vendor to give a written notice to the Purchaser as soon as it ceases to be affected by the Force Majeure.

The vendor shall not be liable for forfeiture of its performance security, penalty or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

15. ORDER CANCELLATION:-

The Purchaser and/or Purchaser also reserve the right to cancel the order in the event of one or more of the following circumstances:

- (c) Serious discrepancy noticed during the pre-dispatch inspection, if any.
- (d) Delay in delivery and installation beyond a period mentioned in the Purchase Order.
- (e) Breach by the Vendor of any of the terms and conditions of the tender.
- (f) If the Vendor goes into liquidation voluntarily or otherwise.

In addition to the cancellation of Purchase Order, the Purchaser reserves the right to forfeit the Security Deposit cum Performance Guarantee submitted to the Purchaser (by the Demand Draft as well as in the form of Bank guarantee) by the Vendor.

16. RISK PURCHASE

In case, if the Vendor fails to deliver the quantity as stipulated in the delivery schedule, the Purchaser and/or Purchaser reserves the right to procure the same or similar materials from alternate sources at the risk, cost and responsibility of the Vendor.

PAYMENT TERMS:

The cost of work carried out by the Vendor shall be treated as inclusive of all taxes, duties and incidental charges and inclusive of the cost of transportation and storage etc. The total price to be paid to RBI is specified and shall be paid in the following manner:

- (i) An irrevocable letter of credit (L/C) confirmed by First Class Bank in The Sellers Country in favour of RBI for 100% of the US Dollar amount shall be opened by the Purchaser as specified in the Tender document. L/C charges shall be to Purchasers account excluding confirming charges which shall be borne by RBI.
- (ii) 90% of the USD component shall be released against shipping documents:
- (iii) Remaining 10% of the USD component shall be released against a certificate of completion to be issued by Purchaser upon successful commissioning of the Turn Table Ladder Tenders at Purchaser site and commercial invoice.

The total price shall include service tax and all other taxes, duties, levies, and charges, payable in India or outside India, relating to the sale and services in connection with the manufacture and delivery of the Turn Table Ladder Tenders, except the import duties, which shall be paid by Purchaser.

All payments made the Purchaser to RBI shall be subject to deduction of income tax or withholding tax, as determine by Purchaser in accordance with applicable law. RBI shall indemnify and hold harmless purchaser from any liabilities on account of any and all such taxes, levies, assessments and deductions, whether payable in India or outside India.

The prices are fixed and firm and not subject to any escalation whatsoever. RBI agree that it has satisfied itself to the correctness and sufficiency of the price and the rates and prices as stated in Tender cover all its obligations under and in relation to the supply and services. Whether the same is expressly provided for in the order or is to be reasonably inferred there from or is necessarily incidental thereto and include any and all direct, indirect and ancillary charges required for execution of the Works. Director, Maharashtra Fire Services will not be responsible for any delay due to loss of time in transit and the Vendor will be

liable to pay compensation due to late completion of work as per terms of contract.

The successful Bidder will have to comply with the conditions given in the attached Tender Form and will have to enter into Contract for the supply work as given in the form.

Payments shall be subject to any deductions (such as TDS etc.,) of any amount, for which the Bidder is liable under the agreement against the Tender.

17. WARRANTY :-

The complete structure & equipments provided and erected as mentioned in the tender under this Contract shall be subject to an overall performance **warranty for a period of 36 months from the date of delivery** of Rescue Tools & Equipments & Thermal Imaging Cameras to the destination as prescribed. On satisfactory expiry of the guarantee period the security deposit paid by the Bidder shall be released.

The Vendor shall be responsible for the maintenance of the Rescue Tools & Equipments & Thermal Imaging Camera for any defects or damages to Goods due to bad workmanship or of any inferior material, accessories, apparatuses etc. The opinion of Director, Maharashtra Fire Services for the quality of workmanship and proper finish etc. shall be final.

To avoid hampering of the services the Vendors shall be responsible to attend any call for manufacturing or defect in the Goods within 48 hours however; defect should be carried out on Top Priority i.e. within 8 days failing which the Security Deposit shall be forfeited.

The warranty should cover the following:-

- 1 The equipment/product should be repaired within 03 days, failing which a replacement should be given till the machine is repaired.
- 2 The Vendor is expected to promptly attend the equipment as above. In order to provide an efficient service the Vendor must obtain the name, address, phone number & other contact details of the person in possession of the equipment. He will be required to keep this list up-to date at all times.
- 3 The Vendor will obtain written acknowledgment from the above person after each time the equipment is serviced. Such receipts will have to be produced to get the sign off for successful completion of the warranty period.

18. FREE MAINTENANCE GUARANTEE

Free maintenance should be done after every 3 months at the concerned fire station premises. The Vendor should give free maintenance guarantee. The maintenance should be done at the Concerned Fire Station Premises where the Goods is delivered. The Vendor should send the qualified technical person to carry out the maintenance.

The contractor shall be responsible for the maintenance of the any defects or damages to Rescue Tools & Equipments & Thermal Imaging Camera of Latest Version. Any bad workmanship or of any inferior material, accessories,

apparatuses etc. The opinion of DIRECTOR, FIRE & EMERGENCY SERVICES for the quality of workmanship and proper finish etc. shall be final.

To avoid hampering of the services the contractors shall be responsible to attend any call for manufacturing or defect in the Rescue Tools & Equipments & Thermal Imaging Camera within 48 hours however; defect should be carried out on Top Priority i.e. within 8 days failing which the Security Deposit shall be forfeited.

19. REPEATED FAILURE

During the warranty period, if any equipment has any failure on two or more occasions it shall be replaced with new equipment by the Vendor at no cost to the purchaser.

20. Onsite Training: -

- A. Training Schedule & Module, should be submitted by the Vendor for actual operation of the system. Minimum 6 days on site training should be given to the actual users of the goods. Users will be nominated by the Purchaser
- B. The contractor should arrange the complete Training at Manufacturers OEM at site prior to delivery of vehicle, all the expenses should be borne by the supplier/ contractor
- C. The manufacturer's service engineer shall undertake the training for a week in the operation and maintenance of the Turntable Ladder for the operational staff (30 personnel) of the Purchasers Fire Brigade at Maharashtra, Fire Brigades Headquarters, Maharashtra, (INDIA) for atleast 2 man days each. Cost on this account shall be included in the offer.
- D. The training regarding the repairs, maintenance, of the chassis and Turntable Ladder including all systems shall be imparted to the engineer of the Fire Brigade department for a period of one week at the factory premises of the equipment manufacturer. The successful tenderer shall supply free of cost all the tools and accessories required for the training. The cost on account to & fro travel, accommodation for one week shall be included in the basic cost of vehicle.

1. PENALTY FOR DOWNTIME

Any equipment that is reported to be down should be either fully repaired or replaced by the Vendor with temporary substitute within 48 hours (inclusive of Public Holidays). The reporting will be through a telephonic message or any other mode as the Purchaser may decide.

In case Vendor fails to meet the above standards of maintenance, there will be a

penalty of Rs. 2000 per day per set.

In case the equipment / goods is not repaired within a period of another 48 hours, the penalty will be charged at 5 (Five) times of the penalty shown above.

The temporary substitute machine or equipment should be replaced by the original machine or equipment duly repaired within 72 hours, failing which the above penalty will be imposed for the number of days exceeding one week. These penalty charges will be deducted from the performance guarantee.

2. PROTECTION AGAINST RISK OF OBSOLESCENCE

Vendor will make available the spare parts for the systems available for a minimum period of ten years from the date of the delivering of items prescribed under the RC.

3. INDEMNITY

The Vendor shall indemnify, defend and hold harmless the Purchaser and its respective officers, directors, employees, representatives and agents ("Indemnified Parties"), from and against any and all suits, actions, liabilities, legal proceedings, claims, demands, losses, costs and expenses of whatsoever kind or character, including without limitation, reasonable attorneys' fees and expenses, for injury or death of third parties or loss of or damage to property of third parties or any other loss or damage caused to the Indemnified Parties, whether direct or indirect, arising as a result of or in connection with (i) any failure on the part of the Vendor to perform its obligations under the Contract or the Tender Document, (ii) any breach on the part of the Purchaser of terms, conditions, representations or warranties under the Contract or the Tender Document, (iii) any negligent acts or omissions or willful misconduct by the Vendor or anyone acting on Vendor's behalf or (iv) any violations of safety procedures, prescribed by the Purchaser or any Law or any Government Authority, by the Vendor or its employees, agents, representatives or independent contractors or (v) any faulty goods, goods or services provided by the Vendor (vi) any infringement of any patent, trademarks, copyrights or any other Intellectual Property Rights or statutory infringements in respect of all the products supplied by the Vendor.

4. PUBLICITY

Any publicity by the Vendor in which the name of the Purchaser is to be used should be done only with the explicit written permission of the Purchaser.

5. SUBCONTRACTING AND ASSIGNMENT

The Vendor shall, without the prior written consent of the Purchaser, neither subcontract nor assign whole or any part of its obligation under this Contract.

6. RELATIONSHIP WITH THE PURCHASER

The relationship between the Vendor and the Purchaser is strictly contractual in nature and no condition under the Tender Document or the Contract shall lead to the inference of a relationship in the nature of an Employer and an Employee. It

is further agreed that the Purchaser shall, under no circumstances, have any relationship of whatsoever nature with the employees, directors, representatives, etc. of the Vendor and shall not be liable in any way to them.

7. RESTRICTIONS OF THE RATE CONTRACT

The Vendor warrants that the price at which he has agreed to provide its goods and services to the Purchaser under the Contract is the lowest price and this lowest price quoted by the Vendor shall become the Rate Contract price. The Vendor warrants that he shall not quote a price below the Rate Contract, for goods and services of similar specification, to procure any other Government Tender. The Vendor also warrants that he shall abide by the guidelines for Rate Contract. If the Vendor violates the terms of this Clause of the Rate Contract, he shall be barred from participating in any future Bidding Process of any Government and the Purchaser if it thinks fit shall proceed to terminate the such default Contractor without any compensation to the Vendor. The Purchaser shall also forfeit the Security Deposit. The decision in this matter of The Director, MFS shall be final.

8. RESOLUTION OF DISPUTES

The Purchaser and the Vendor shall make every effort to resolve if any dispute amicably, by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract.

If after thirty days from the commencement of such informal negotiations, the Purchaser and the Vendor have been unable to resolve the dispute amicably, either party (not being MFS) may require that the dispute be referred for resolution to the Director, MFS, Government of Maharashtra. In case a party to the dispute is MFS, if the dispute is not settled amicably within thirty days, the same shall be referred to the Secretary UD-2, Government of Maharashtra whose decision will be final and binding on both the parties.

All questions, disputes or differences arising under and out of, or in connection with the Contract, shall be referred to the Director, MFS Government of Maharashtra. In the case of dissatisfaction or non-acceptance by any of the Parties of the decision given by the Director, MFS, Government of Maharashtra, the matter shall be referred to the **Secretary UD-2, Government of Maharashtra** whose decision will be final and binding on both the parties.

9. LEGAL JURISDICTION

This Contract and the Tender shall be governed by the laws of India and all the disputes arising out of or related to this Tender or the Contract shall be subjected to the jurisdiction of the appropriate courts at Mumbai only.

SPECIAL CONDITIONS OF CONTRACT

1. The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General conditions is indicated in parentheses.

3. **Country of Origin:**
All member countries of the World Bank, Switzerland, Taiwan and China, European Countries, Japan etc.

4. **Performance Security:**
The Performance Security shall be in the amount of 5% of the contract price.

5. **Inspection and Tests :**
The following inspection procedures and tests are required:
 - a) Inspection of Goods before delivery at the factory premises of supplier in case of indigenous goods.
 - b) Inspection of Goods before shipment at factory premises of supplier, in case of foreign goods.
 - c) The inspection will be carried out by DIRECTOR, MFS or his authorized representatives or the Purchasers as the case may be

6. **Delivery and Documents:**
 - a) **For Imported Goods:** Upon shipment, the Supplier shall notify the Purchaser and the Insurance Company by cable or telex the full details of the shipment including contact number, description of Goods, quantity, the vessel, the bill of lading number and date, port of loading, date of shipment port of discharge, etc. The Supplier shall mail the following documents to the Purchaser, with a copy to the Insurance Company.
 - a. Three copies of the Supplier's invoice showing Goods description, quantity, unit price total amount;
 - b. Original and duplicate copies of the negotiable clean, on-board bill of lading marked freight prepared and two copies of non-negotiable bill of lading;
 - c. Three copies of packing list identifying contents of each package;
 - d. Valid Insurance Certificate; in triplicate.

- e. Manufacturer's /Supplier's guarantee certificate;
- f. Three copies of Inspection certificate, issued by the nominated inspection agency and the supplier's factory inspection report; and
- g. Certificate of origin ' in duplicate.
- h. Certificate from Shipping Company showing that vessel is of conference liner Lloyds approved and age of the vessel is not more that 25 years.

The above documents shall be received by the Purchaser at least one week before arrival of goods at the port and if not received the Supplier will be responsible for any consequent expenses.

Telephonic instructions shall be sent to the consignee, immediately the goods are booked and the above documents shall be sent to the Purchaser by registered mail on the same day.

7. **Insurance:**

The insurance shall be in an amount equal to 110% of the total of CIF/F.O.R. value of the goods from "Manufacturers Warehouse to the final destination , i.e. Purchasers Fire Station as specified by the Purchaser " on "**All Risks**" basis including Theft, Accidents, war risks and strike clauses, etc..

8. **Incidental Services :**

The following services covered under clause 13 shall be furnished. The cost should be included in the contract price:

- a) Performance and supervision of on-site assembly and start-up of the supplier goods.
- b) Furnishing of tools required for assembly and maintenance of the supplied goods.
- c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods.
- d) Performance supervision maintenance and repairs of the supplied goods for a period agreed by the parties provided that his service shall not relieve the supplier of any warranty obligations under this contract.
- e) Conduct training of the purchaser's personnel, at the Supplier's plant and on-site in assembly start-up, operation maintenance and repair of the supplied goods.

9. **Spare Parts:**

Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares such as gaskets, plugs, washers, belts etc. other spare parts and components shall be supplied as promptly as possible but in any case within month of placement of any warranty obligations under the contract.

10. **Warranty:**

The Warranty period shall be 36 months from the date of supply and commissioning of equipment to the purchasers_Fire Service.

11. **Settlement of dispute:**

11.1 If any dispute or difference of any kind whatsoever (other than those in respect of which the decision of any person is by the contract, expressed to be final and binding) shall arise between the DIRECTOR or any other officers and contractor in connection with/or arising out of the Contract for carrying out of the works (whether during the progress of the termination, abandonment or breach of the Contract) it shall in the first place be referred to and settle by the DIRECTOR who within a period of 90 days after being requested by either party to do so shall give written notice of his decision to the Contractor. Save as herein provided such provided such decision in respect of every matter so referred shall be final and binding upon both parties until the completion of work, and shall forthwith be given effect to by the Contractor who shall proceed with the works with due diligence whether he requires arbitration as hereinafter provided or not. If the DIRECTOR has given written notice of his decision to the Contractor and no claim to arbitration has been communicated to him by the Contractor within a period of 90 days from receipt of such notice the said decision shall remain final and binding upon the Contractor.

11.2 If the DIRECTOR shall fail to give notice of his decision as aforesaid within a period of 90 days after being requested as aforesaid, or if the Contractor be dissatisfied with any such decision, then and in any such case the Contractor may within 90 days after receiving notice of such decision or within 90 days after the expiration of the first named period of 90 days (as the case may be) require that the matter or matters in dispute be referred to arbitration as hereinafter provided. All disputes or differences in respect to which the decision (if any) of the DIRECTOR has not become final and binding as aforesaid shall be finally settled by arbitration as follows:

- i) By a single arbitrator agreed upon by the parties or failing agreement upon such an arbitrator:

ii) by three arbitrators one to be appointed by the Corporation another by the Contractor and the third by the President of the Institution of Engineers, India, If either party fails to appoint an arbitrator then the other party may request the President of the International Chamber of Commerce or the President of the institution of Engineers (As the case may be) to make such appointment.

11.3 The arbitration shall be conducted in accordance with the Rules and Procedures for Arbitration of the International Chamber of Commerce, in the case of a Group-C Contractor and in accordance with the provisions of the Arbitration Act 1940 or any statutory modification thereof.

11.4 The decision of the arbitrator or the majority of the arbitrators shall be final and binding upon the parties hereto and the expense of the arbitration shall be paid as may be determined by the arbitrator or arbitrators. The said arbitrator or arbitrators shall have full power to open up review and revise any decision opinion, direction certificate or valuation of the DIRECTOR and neither party shall be limited in the proceedings before such arbitrator or arbitrators to the evidence or arguments put before the DIRECTOR for the purpose of obtaining his said decision. No decision given by the DIRECTOR in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator or arbitrators on any matter whatsoever relevant to the dispute or difference referred to the arbitrator or arbitrators as aforesaid.

12. Notices :

For the purpose of all notices the following shall be the address of the Purchaser and Supplier :

Purchaser:

The DIRECTOR (MFS)
Maharashtra Fire Services
Maharashtra,
INDIA

Supplier:

.....
.....
.....

14 DIRECTOR 's Representative:

The duties of the representative of the Director Or Purchasers are to check,

inspect and supervise the work and to test and examine any material to be used to workmanship employed in connection with the works. He shall have no authority to order any extra work involving any extra payment by the Corporation nor to order any Variation in the Works, unless approved or directed by the Director.

However, he shall perform the following duties:

- 1) Furnishing of drawings and information to the Contractor
- 2) Approving of Contractor's drawings subject to post-facto approval and signature of the Director.
- 3) Recommending and approving the interim Certificates, taking over certificate and final certificate after thorough checking and inspection.
- 4) Recommending extra works required and extension of time after taking necessary approval from Director

Failure of the Representative of the Director to disapprove any work or material shall not prejudice the power of the Director thereafter to disapprove such work or material and to order removal or modification thereof.

If the contractor shall be dissatisfied with any decision of the Representative of the Director he shall be entitled to refer the matter to the Director who shall thereupon confirm, reverse or vary such decision as deemed fit.

15. Programs to be furnished:

The time allowed for execution of supply and delivery of the plant shall be the essence of the contract. The contract period shall commence from the date of intimation of acceptance of the tender. The contractor at the time of submitting his tender shall enter in the Delivery Schedule, the total time required to manufacture, test, load, transport and deliver the plant.

16 Discrepancies in Specifications:

The tender specifications are to be considered as actually explanatory. **Variation in the specifications/ requirements of Plus - Minus 5% to 10% shall be acceptable** , if any discrepancies however, arise as to the meaning and import of the said specifications or the quality of the material for the due and proper supply of goods/equipments or as to the measurement or quality or valuation of the goods/equipment supplied under the Contract, or as extra thereupon the same shall be explained by the DIRECTOR, MFS, and his explanation shall, subject to

the final decision of the DIRECTOR in case a reference be made to him, be binding upon the Contractor and the contractors shall supply the goods/equipments according to such explanation (subject as aforesaid) and without addition to or deduction from the contract and shall also do all such works and things necessary for the proper supply of the goods/equipments as implied by specifications, even though such works and things are not specially shown and described in the specifications.

17. Inspection and Taking Over:

Within one month of the date of receipt of the plant at the designated destination and after visual inspection, the purchaser will issue a taking over certificate in which the corporation will certify the date on which the vehicle has been so accepted. The taking over of vehicle found defective due to faulty design or workmanship or damage due to defective packing or otherwise not in conformity with the requirements of the Contract fails to be withheld until such time as the defects have been corrected. If the Contractor fails to make good any defects, the DIRECTOR may take at the cost of the Contractor such steps as may in all the circumstances be reasonable to make good defects. The issuance of taking over certificate shall in no way relieve the contractor of his responsibility for the satisfactory operation of the vehicle in terms of the specification.

19 Extension of Time:

If the completion or supply of plant is delayed due to reasons beyond the control of the Contractor, the contractor shall without delay give notice to the DIRECTOR in writing of his claim for an extension of time but shall nevertheless use constantly his best endeavors to prevent or make good any delay and shall do all that may be reasonably required to the satisfaction of the DIRECTOR to execute the work.

Requests for an extension of time to be eligible for consideration shall be made by the contractor in writing within 14 days of the happening of the event causing delay. The Contractor may also if practicable, indicate in such a request the period for which the extension is required.

In any such case the DIRECTOR may give a fair and reasonable extension of time for completion of individual items or groups of items of work for which separate periods of completion are specified in the Contract or the Contract as a whole. The decision of the DIRECTOR in regard to the extension will be communicated to the Contractor in writing within a reasonable time.

20 Defects:

The Contractor shall be responsible for making good with all possible speed any defects arising from defective designs (other than a design made, furnished or specified by the Corporation and for which the Contractor has disclaimed

responsibility in writing within a reasonable time after the receipt of the DIRECTOR's instructions) materials or workmanship or from any act or omission of the Contractor that may develop under the any portion thereof during the period of Maintenance.

If such defects shall occur the DIRECTOR shall inform the Contractor thereof stating in writing the nature of the defect. If the Contractor replaces or renews any portion of the Goods the provision of this clause shall apply to the portion of the Goods so replaced or renewed as if that portion has been taken over on the date of replacement or renewal.

Save as in this clause expressed the Contractor shall be under no liability in respect of the said defects after the Goods have been taken over.

The Contractor shall if required by the DIRECTOR in writing, search for the cause of any defect, imperfection or fault under the direction of the Engineer. Unless such defects, imperfections or faults shall be one for which the contractor is liable under the contract the cost of the work carried out by the contractor in searching as aforesaid shall be borne by the Corporation. But if such defect, imperfection or fault shall be one for which the Contractor is liable as aforesaid the cost of the work carried out in searching as aforesaid shall be borne by the Contractor, and he shall in such case repair rectify and make good such defect, imperfection or fault at his own expense in accordance with provision of this clause.

If any defects be not remedied within a reasonable time, the DIRECTOR may: -

- a) At his option replace or rectify such defective goods and recover the extra cost so involved from the Contractor plus fifteen percent; or
- b) Terminate the contract for default as provided under clause 3 (Contractor's default) ;
- c) Acquire the defective goods at a reduced price considered equitable under the circumstances.

20. Overpayment and Underpayment:

Whenever any claim for the payment of a sum to the Corporation arises out of or under this contract against the Contractor the same may be deducted by the Corporation from any sum then due or which at any time thereafter may become due to the contractor under this contract and failing that under any contract with the Corporation or from any other sum due to the contractor from the Corporation

(which may be available with the Corporation) or from his retention money, or he shall pay the claim on demand.

The Corporation reserves the right to carry out post payment audit and technical examination of the final bill including all supporting vouchers abstracts etc. The Corporation further reserves the right to enforce recovery of any overpayment when detected notwithstanding the fact that the amount of the final bill may be included by one of parties as an item of disputes before an arbitrator appointed under clause 45 (Arbitration) of this Contract notwithstanding the fact that the amount of the final bill figures in the arbitration award.

If as a result of such audit and technical examination any overpayment is discovered in respect of any work done by the Contractor or alleged to have been done by him under the Contract it shall be recovered by the Corporation from the Contractor by any or all the methods prescribed above or if underpayment is discovered the amount shall be duly paid to the Contractor by the Corporation.

Provided that aforesaid right of the Corporation to adjust overpayment against amounts due the Contractor under any other Contract with the Corporation shall not be extended beyond the period of two years from the date of payment of the final bill or in case the final bill is a "minus" bill from the date that amount payable by Contract under "minus" bill, is communicated to the Contractor.

Any amount due to the Contractor under this Contract for underpayment may be adjusted against any amount then due or which may at any time thereafter become due before payment is made to the Contractor, from him to the Corporation on any other contract account whatsoever.

SECURITY DEPOSIT CUM PERFORMANCE GUARANTEE FORM

(Bank Guarantee)

(To be issued by a Bank as specified in the Tender Document)

REF

Bank Guarantee No.

Date

To,

DIRECTOR (MFS),
Maharashtra Fire Services
Maharashtra.

Dear Sir,

In accordance with invitation to Bid for Contract No. dated for the supply, delivery of Turn Table Ladder of ___ to ___ Mtrs for MFS Fire Service, Maharashtra, India, and In consideration of Maharashtra Fire Services, (MFS) (which expression shall hereinafter be referred to as “the Purchaser” and shall include DIRECTOR, MFS , Director, MFSMFS, having agreed, inter alia, to accept the offer of

M/s.

..... having its
registered office at
.....

(hereinafter referred to as “**Supplier**” which expression shall include its respective successors and assigns) to **supply Turn Table Ladder ___ to ___ Mtrs for the purpose of Maharashtra Fire Service, Maharashtra, India** and more particularly delivering on time the Goods and Services mentioned in the Contract dated and Tender Document dated and in order to secure the due performance of the obligations of the Supplier under the Contract and Tender Documents, we the Bank having our Head Office at (hereinafter called as the “Bank”, which expression shall include our successors and assigns) so as to bind ourselves, our successors and assigns, do at the instance of the Purchaser, hereby unconditionally, irrevocably and without demure undertake to pay as primary obligor and not as surety only to the Purchaser forthwith at on first demand in writing by the DIRECTOR, MFS

We, the Bank_____do hereby unconditionally and irrevocably undertake to pay forthwith (and in any event within three days) the amounts due and payable under this Guarantee without any demur merely on a written demand from the DIRECTOR stating that the amount claimed has become due. Any such demand made on the Bank by DIRECTOR shall be conclusive as regards the Supplier not performing and adhering to its obligations under the Contract and/or Tender Document. However, the Bank's liability under this Guarantee shall be restricted to an amount not exceeding Rs.75,00,000/- (Rupees Seventy five lakhs Only).

We, the _____Bank unconditionally undertake to pay to the Purchaser any money to the extent of what is the subject matter of this Guarantee, so demanded under this Guarantee notwithstanding any dispute or disputes raised by Supplier or any of them including in any suit or proceedings pending before any court or tribunal relating thereto or any instructions or purported instructions by Supplier to the Bank not to pay or for any cause to withhold or defer payment to the Purchaser under this Guarantee, the Bank's liability under this Guarantee being absolute and unequivocal.

This Guarantee shall be irrevocable and shall remain valid upto .../. (hereinafter called 'the End Date'). If any further extension of this Guarantee is required, the same shall be extended to such period.

We, the _____Bank further agree with the Purchaser that the Purchaser shall have the fullest liberty without the Bank's consent and without affecting in any manner the Banks obligations hereunder to vary any of the terms and conditions of the Contract and Tender Documents or to extend or postpone the time of performance by the Supplier from time to time or postpone for any time or from time to time any of the powers exercisable by the Purchaser/DIRECTOR against the Supplier and to enforce or to forebear from enforcing any of the terms and conditions relating to the above referred Contract and Tender Document and the Bank shall not be relieved from its liability by reason of any such variation or extension being granted to the Supplier or any forbearance, act or omission on the part of or any indulgence given by the Supplier or by any such matter or thing whatsoever which under the law relating to securities would, but for this provision, have the effect of so relieving the Bank.

To give full effect to the obligations herein contained, the Purchaser shall be entitled to

act against the Bank as primary obligor in respect of all claims arising out of this Guarantee and it shall not be necessary for Purchaser to proceed against the Supplier before proceeding against the Bank under this Guarantee and the Guarantee herein contained shall be enforceable against the Bank as principal obligor.

This Guarantee shall not be discharged or affected in any way by the liquidation or winding up or dissolution or change of constitution or insolvency of the Supplier or any change in the legal constitution of the Bank or the Purchaser.

We, the _____ Bank lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Purchaser in writing.

Notwithstanding anything contained herein:

Our liability under this Bank Guarantee shall not exceed Rs. 75,00,000/- (Rupees Eighty Lakhs only). This Bank Guarantee shall be valid upto .../.../.....

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us written claim or demand on or before the End date.

In witness whereof of the Bank, through its authorized officer, has set it's hand and stamp on this day of at Mumbai

Witness

- | | |
|----|-----------------------|
| 1. | Signature |
| 2. | Name |
| 3. | Designation with Bank |

Stamp

Date

BID SECURITY FORM

Ref. :

Date. :

Bank Guarantee No.

In accordance with invitation to Bid for Contract No. dated
for the supply, delivery of **Turn Table Ladder** ___ to ___ **Mtrs** for MFS Fire Service,
Maharashtra, India

(I) M/s.

.....

or M/s.

address

.....

wish/wishes to participate in the said Bid and the sum of -----
----- is required to be submitted by the Bidder as a guarantee that they/ he will
furnish a Performance Guarantee and that they/ he will execute the necessary Contract
whenever called upon to do so without any reservations.

Witness Signature

Name For Messers

Address
.....

(Name of the Contractor)

ii) Witness Signature

Name

Address

.....

CONTRACT AGREEMENT FORM

Date200

Bid No.

Standing Committee Resolution No..... Contract for the supply, delivery of Turn Table Ladder ___ to ___ Mtrs for MFS Fire Service, Maharashtra, India

This agreement made this day of One

Thousand andbetween

.....

inhabitants ofCarrying on

business at

in

Style and name of Messrs

.....

(hereinafter called "the Contractor") of the One part and Shri., The Director, Maharashtra Fire Services or Shri., The DIRECTOR, Maharashtra Fire Services (hereinafter called "the DIRECTOR, MFS" in which expression are included, unless the inclusion is inconsistent with the context or meaning thereof, his successor or successors for the time being holding the office of the DIRECTOR of the second part and the Maharashtra Fire Services thereafter called "the Corporation") of the third part. WHEREAS the Contractor has tendered for the Works described above and his tender has been accepted by the competent authorities NOW THIS AGREEMENT WITNESS as follows :-

- 1) In this agreement words expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract for works hereinafter referred to.
- 2) The following documents shall be deemed to form and be read and construed as part of this agreement viz.
 - (a) The said Bid.
 - b) The Specifications
 - c) The conditions of Contract

- d) The appendices and Schedules
- e) The Schedule of Prices
- f) The Performance Security

3) In consideration of the payments to be made by the DIRECTOR or DIRECTOR to hereby covenants with the DIRECTOR or DIRECTOR to supply, deliver and maintain the plant in conformity in all respects with the provisions of the Contract.

a. The DIRECTOR or DIRECTOR hereby covenants to pay to the Contractor in consideration of the supply, delivery and maintenance of the plant the Contract Price at times in the manner prescribed by the Contract.

Signed and delivered by the

Contractor

.....

in the presence of Trading under the name & style

Full name

Address

.....

Contractors

Signed by the DIRECTOR,/ Purchaser

in the

Presence of

DIRECTOR

The Common Seal of the MFS

Was

Hereunto affixed on the

i. in the presence of two

Members of the Standing Committee of the Corporation

(1)

(1)

.....

.....

(2)

(2)

.....

.....

and in the presence of the

PERFORMANCE SECURITY FORM

To
The DIRECTOR
Maharashtra Fire Service, (MFS)
(INDIA)

1. Against Contract No..... dated Two
Thousand and
.....(hereinafter called
the said "Contract") entered into between
.....
inhabitants carrying on business at
in Under the style and name of
Messrs
(hereinafter called "the Contractor") of the one part and the DIRECTOR in which
expression are included, unless the inclusion is inconsistent with the
context, or meaning thereof, his successor or successors for the time being holding the
office of the DIRECTOR of the second part and the Maharashtra Fire Services a
appointed under by the Maharashtra Life safety & Fire Prevention Act 2006
(hereinafter called the Contractor") of the third part, WHEREAS at the request of the
Contractor we Bank Ltd, are holding in
trust in favour of the Corporation the amount of
.....
.....

..... (Write the sum here in letters)
to indemnify and keep indemnified the Corporation against any loss or damage that may
be caused to or suffered by the Corporation by reasons of any breach by the Contractor
of any of the terms and conditions of the said contract and /or the performance thereof.
We agree that the decisions of the DIRECTOR whether any breach of any of the terms
and conditions of the said contract and / or any failure in
.....performance
thereof has been committed by the Contractor and the amount of loss or damage that
has been caused or suffered by the Corporation shall be final and binding on us and the
amount of the said loss or damage shall be paid by us forthwith on demand to the

Corporation.

2. WeBank Ltd., further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for satisfactory performance and fulfillment in all respect of the said Contract including the maintenance period of 18 months from the date of putting into services or 26 months from the date of issue of the Taking Over Certificate by the Corporation, Whichever is the sooner of provided always that before the expiry of the date of the validity of the guarantee herein contained, we shall, from time to time, on being called upon by the DIRECTOR extend the date of the validity for a period of six months on each occasion and that if any claim accrues or arises against us Bank Ltd, by virtue of this guarantee before the said date as extended from time to time, the same shall be enforceable against us.....

.....Bank Ltd., notwithstanding the fact that the same is enforced after the said date as extended from time to time, provided that the notice of any such claim has been given by the DIRECTOR before the expiry of the said date. Payment under this Letter of Guarantee shall be made promptly upon our receipt of notice to that effect from the DIRECTOR.

3. It is fully understood that this guarantee effective from the date of said Contract and that we Bank Ltd., undertake not to revoke this guarantee during its currency without the consent in writing of the DIRECTOR.

4. We Bank Ltd. further agree that the DIRECTOR shall have the fullest liberty, without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the DIRECTOR against the said Contractor and to forbear or enforce any of the terms and DIRECTOR against the said Contract and we Bank Ltd. shall not be released from our liability under this guarantee by reason of any such variation or extension being granted to the said Contractor or for any forbearance of the part of the DIRECTOR or any indulgence by the DIRECTOR or by any other matter or thing whatsoever which under lay relating to sureties would, but for this provision have the effect of so releasing us from our liability under this guarantee.

5. WeBank Ltd., further agree that the guarantee herein contained shall not be affected by any change in the Constitution of the said Contractor or the Bank.

This day of
Two Thousand and

In witness whereof

Witness

(1) Signature
Name
Address
.....

The duly constituted Attorney

(2) Signature
Name.....
Address
.....

Manager
For
(Name of the Bank)

The Bank and the said Messers

Witness

(1) Signature
Name
Address
.....

(2) Signature

Name

Address

.....

.....

For Messers

(Name of the Contractor)

DETAILED SPECIFICATIONS

GENERAL

Nature Of Contract

- 1.1 The Contract shall comprise the supply and delivery of equipments mounted on vehicle chassis, complete with all the accessories, tools, as specified. The vehicles and equipments will be used for Fire Fighting & Rescue operations.

The bid price shall include the cost of materials, plant, equipment, labour, consumables, tools, and everything needed to design and manufacture the vehicle for test at the contractor's works for delivery and insurance to designated destination in Mumbai for maintenance and discharging every obligation and requirement specified under the contract.

Contractor's Tender Drawing

- 1.2 The contract shall submit with his bid 2 copies of typical Cross Selection Drawings showing the salient features of the equipment mounted on specified vehicles chassis and accessories offered together with sufficient details to enable the general arrangement of the vehicles and equipments to be determined and these shall be called contractors tender drawings. One set of these drawing shall accompany each copy of the tender.

Approved Drawings

- 1.3 The Contractor shall, within two weeks of acceptance of his bid, submit for the approval of the DIRECTOR, MFS, three copies of dimensioned drawings of each item of plant. These drawings having been corrected or amended as necessary to the DIRECTOR, MFS's approval shall become the Approved Drawings to be used for the performance of the works.

Within fourteen days of the issue of the notice of the approval of the drawings, the Contractor shall supply to the DIRECTOR, MFS, five further copies of each approved drawings one of which shall be signed by the Contractor. Copies of such drawings shall be made available by the Contractor for inspection at his

works. One copy of each approved drawing shall be signed by the DIRECTOR and returned to the Contractor.

Instruction Manual

- 1.4 The Contractor shall send three bond copies of an Instruction Manual, Workshop Manual and Spare Parts catalog to the DIRECTOR on or before the delivery of the plant. The manual shall include details of all types of equipments and accessories under the contract.

The Instructions Manual shall be approved in draft from initially by the DIRECTOR and the Workshop Manual shall contain information necessary for dismantling and reassembling each item of plant and maintenance instructions including charts showing lubrication, checking, testing and replacement procedure to be carried out periodically. All lubricant shall be listed. The spare parts catalog shall contain list of spare parts, Material Specification, Spare Parts drawings, part number, quantity and price. The manuals shall be printed and bound in Twin lock binders.

Compliance with Standard Specifications

- 1.5 All details, materials and equipments supplied and workmanship performed, in regard to which specifications or standard have been issued by the Indian Standard Institution shall be supplied and performed in accordance with such specifications or standards unless otherwise specified. The approval of the other standards may be considered if in the opinion and discretion of the DIRECTOR they are equivalent to or better than the above referred specifications. Whether the relevant standards provides for the furnishing of a certificate to the Corporation on request, stating that the materials comply in all respects with the standard, the contractor shall obtain the certificate and forward, it to the DIRECTOR, MFS's representative.

Design

- 1.6 The Contractor shall design the plant to the DIRECTOR, MFS's satisfaction and in accordance with the Specification. The design shall be in accordance with best modern practice and shall be such as will facilitate inspection, cleaning, lubrication and repair to ensure satisfactory operation under all service

conditions. The plant or any part thereof may be of the contractor's standard design provide that such design is generally in accordance with the Specifications. The Contractor's design calculations shall be submitted to the DIRECTOR, MFS's Representative, if required.

Approval by the DIRECTOR of the Contractor's design or drawings shall not relieve the contractor of any of his obligations or liability under the contract except in so far as provided for by the Conditions of Contract.

Materials General

1.7 The units and accessories shall be manufactured from materials specified in the clauses appropriate to the particular item except where the contractor at the time of tendering :

- (a) due particular attention to the deviation from the specification and
- (b) Substantiated to the specification of the DIRECTOR, MFS, his claim that the material offered is equal or superior to the material specified and such deviation has been accepted in writing by the DIRECTOR, MFS.

Where the material to be used has not laid down in this specification, the contractor shall use only those materials in such composition as have been proved in actual service to be most suitable for the particular purpose.

Care shall be exercised in the selection of various types of metals for use in the units and accessories to reduce the effect of bimetallic corrosion to the minimum.

Grade of Materials

1.8 Materials used shall be of the best quality suitable for use in the climatic conditions given in Appendix I and road conditions in Mumbai given in Appendix II.

Workmanship

1.9 Workmanship and general finish shall be of first class commercial quality and in accordance with best workshop practice.

All similar items of the plant and their component parts shall be completely interchangeable. Spare parts shall be manufactured from the same materials as the originals and shall fit all similar items. Machining fits on renewable parts shall be accurate and to specified tolerance so that replacements made to manufacturer's drawings may be readily installed.

All parts which can be worn or damage by dust shall be totally enclosed in dust proof housing.

Protective Coating

- 1.10 The contractor shall apply any internal and external protective coatings that he deems necessary bearing in mind in atmosphere conditions. Full details of all coatings shall be submitted with tenders.

Lubrication

- 1.11 The contractor shall submit full details of the method of lubrication to be employed for plant to be supplied under Contract. The Contractor shall supply all necessary lubricating equipment, including sufficient oil and other lubricants of each required grade for setting the plant to work.

Spare Parts

- 1.12 The Contractor shall offer spare parts and float units in the respective schedule of spare parts that he recommends should be purchased by the Corporation as sufficient for Two years operation of vehicles and equipments.

All spare parts shall be fresh unused and strictly interchangeable with the parts for which they are intended to be replaced and shall be treated and packed for long storage under the climatic conditions prevailing at the site. Each spare parts shall also be clearly marked or labeled on the outside of its packing with its description and purpose and when more than one spare is packed in a single case or other container, a general description of its contents shall be shown on the outside of such case or container and a detailed list enclosed. All cases, containers and other package shall be marked and numbered in an approved manner for purpose of identification. They shall be clearly marked SPARE

PARTS.

Tools

- 1.13 A complete set of any necessary special tools, in completely new and unused conditions, shall be supplied by the Contractor to enable any erection, dismantling or testing to be carried out any part of the plant whether of an electrical, mechanical or other nature. These tools shall be as described in the Scheduled of Tools.

Protection and Packing for Transportation

- 1.14 Before any plant is dispatched from a manufacturer's works, it shall be properly prepared and packed in accordance with clause - **Delivery** of the General Conditions of Contract and the Contractor shall give the DIRECTOR at least fourteen days notice that these preparations are to commence.

Cases obtaining spare shall not weight more than 100 kg. gross. All crates, packages etc. shall be clearly marked with a water proof material to show the weight where the weight is bearing and where the slings should be attached, and shall have an indelible identification mark relating them to the packing lists.

Delivery Period

- 1.15 The dates on which is of the equipments will be required in Mumbai are showing schedule of delivery. The contractor shall complete delivery of the Plant within the time offered in the Delivery Schedule.

APPENDIX "I"

CLIMATIC CONDITIONS

_____ City , Maharashtra

	Temperature (C) Mean		Max Recorded	Min Recorded	Humidity (%) At		Mean hours Sun Shine	Precipitation (mm)	
	Day	Night			080 hrs	1600 hrs		Av Month	Max Recorded in 24 hrs
JAN									
FEB									
MAR									
APR									
MAY									
JUN E									
JUL Y									
AUG									
SEP									
OCT									
NOV									
DEC									

Wind direction

March – October

From the Sea

South to North West

November -February

From the Land

The monsoon generally starts about 5th June and ends about 15th October.

APPENDIX “II”

STREET CONDITIONS IN

_____ **City , Maharashtra**

Sr. No	Description
1. Width	__meter (Minimum)
2. Slope	__% (Maximum)
3. Surface	(i) Asphalted/ Cocreteated
Condition	(ii) Rough & Muddy at some places.
4. Length of Haul	50 to 60 Kilometers per hour.

**SPECIFICATIONS FOR FABRICATION AND SUPPLY OF TURNTABLE
LADDER 30 TO 35 METER HEIGHT FOR FIRE FIGHTING AND
RESCUE OPERATION WITH FIVE (5) YEARS COMPREHENSIVE
SERVICE MAINTENANCE CONTRACT- 1 NO.**

1. **GENERAL REQUIREMENT:**

- a) 1.1 The Turntable Ladder shall be designed specifically for the purpose of fire fighting and rescue to enable firemen to go up and down. It shall comprise of ladder sections with a cage mounted at the end of top ladder section and the entire unit shall be mounted on a Turn-Table on a Heavy Duty Diesel - Engine chassis of VOLVO/ MERCEDEZ/ MAN, make, , 4X2, having approx. 4800 mm Wheel Base (as per CMVR 1989) with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall be Right Hand Drive and shall comply BS III or BS IV (EURO III/ EURO IV) emission norms as in force in the indenting city
- 1.2 The Turntable Ladder shall be designed as per the designed, operational stability and structural strength based on the criteria laid in prEN14043 / EN 14043 / EN 1777 AND EN 280 AND EN 280 AND EN 280 OR “JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK OR an equivalent standards meeting the criteria’s laid down in EN standards and other norms and standards applicable for elevated raised platforms used for Fire Fighting and rescue operations and the certificate to that effect issued by the competent agency shall be enclosed with the tender.
- 1.3 The TTL shall be capable of use at any angle of elevation without any reduction of load capacity of the cage. It shall also rotate 360 degree at any angle of elevation as well as below ground level subject to ladder remaining clear of vehicle body. The machine shall have an articulated ladder arm at the end of the ladder section for providing firemen the facility to go up and over any obstruction.
- 1.4 The appliance shall be compact and fast on the road and easily maneuverable in the crowded streets and around sharp corners. The overall dimensions shall not exceed the limits specified herein.
- 1.5 The height of the Turntable Ladder when fully extended shall not be less than 30 to 35 mtrs from the ground.
- 1.6 The Turntable Ladder shall be electro hydraulically controlled, permitting precise and easy operations under the most difficult conditions, with ample reserve strength and stability.
- 1.7 Full safety interlocks shall be incorporated in the design so as to ensure complete safety in operations and long years of reliable and trouble free service, as far as possible the system shall be fail proof.

- 1.8 The design of the TTL shall allow a very large safety margin for extreme operating and climatic conditions. The safe working loads ratings shall include an allowance for the weight of water system and the reaction from the monitor jet while operation.
- 1.9 The Vehicle shall have a leveling system to adjust an angle not less than 7 degree and it shall be in automatic in nature.
- 1.10 There shall be a full back up system for all ladder movements and outrigger movement in case of failure of main system.
- 1.11 The Complete Movement of the TTL shall be computer controlled and the system shall be checked for interference sensitivity according to IEC-810-2.
- 1.12 The Control system of the TTL shall be fully tropicalized and able to operate in the temperature range upto + 60 degree centigrade and in a dusty and Humid condition without reducing the maximum operating limits.
- 1.13 The operation of ladder shall be possible from -10 + 75 degree.

2. CHASSIS:

- b) 2.1 The Chassis shall be of VOLVO OR MAN OR MERCEDES BENZ, 4X2, having approx. 4800 mm Wheel Base (as per CMVR 1989) with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall be Right Hand Drive and shall comply BS III or BS IV (EURO III/ EURO IV) emission norms as in force in the indenting city
- 2.2 The Chassis shall be homologated from the appropriate authority in India in case not already an approved model.
- 2.3 The engine shall be Four stroke, six cylinders, inline, Diesel with direct injection, turbo charged with intercooled Diesel engine
- 2.4 The displacement of the engine shall be 9.4 ltrs and developing 300 hp (220 kW.) at 2100 rpm.
- 2.5 The clutch shall be single plate, dry type, and power assistant.
- 2.6 The gearbox shall be nine speeds synchronized with crawler gear.
- 2.7 Rear Axle shall be Tandem Bogie type with Hub reduction and differential lock between the wheels and axles.

- 2.8 Chassis frame shall be 'C' Channel section made of high strength steel with cross members.
- 2.9 The Steering shall be integral power steering with collapsible steering wheel and column.
- 2.10 The Front Suspension shall be leaf spring type and the rear suspension shall be reverse scamel type with shock absorber in the front.
- 2.11 The Brakes shall be dual circuit airbrakes, 'Z' cam type with parking brakes acting on rear wheels.
- 2.12 Fuel Tank - Capacity shall be min 200ltrs with lockable fuel cap.
- 2.13 The Chassis shall be provided with 11.00R x 20 radial Tyres - 11nos with spare tyre.
- 2.14 The chassis shall be provided with single day type cab with RED colour, made from high strength steel fully trimmed, external panels hot dip galvanised with hydraulic cab tilting mechanism. The Cab suspension shall be provided with coil spring and shock absorber. The cab shall be provided with adequate ventilation, rear view mirrors, windscreen and windows, adjustable driver seat, wiper system and alongwith all other standard fitments.
- 2.15 The Electrical system shall be 24V, with suitable capacity batteries & Alternator for charging the batteries.
- 2.16 The chassis shall be supplied with standard tool kit, hydraulic jack of 20ton capacity, operator & workshop manuals.
- 2.17 The Chassis shall be fitted with gearbox mounted, suitable capacity Power Take Off Unit to drive the hydraulic pump for boom movements.
- 2.18 The Chassis shall be directly procured by the tenderer confirming to above specifications and shall be got homologated with the appropriate authority in India. The Transportation responsibility of the chassis upto tenderers manufacturing facility lies with the tenderer. The Chassis shall be insured while in transit.
- 2.19 The Chassis shall comply all the provisions and enactment of Motor Vehicle Act 1988 and Central Motor Vehicle Rules 1989 and any amendment from time to time.

3. **OPERATING REQUIREMENTS & DIMENSIONS OF FINISHED APPLIANCE:**

The Vehicle shall comply the following requirements

- | | | | |
|------|--|---|---|
| 3.1 | Max working Height | : | 32 to 35 mtrs |
| 3.2 | Height to working cage bottom | : | 30 to 32mtrs |
| 3.3 | Max Working outreach with 400kg cage load | : | 16 to 18mtrs |
| 3.4 | Rotation - Continuous | : | 360 degree |
| 3.5 | Safe working load in the cage on hard level
Ground with dry monitor | : | 275 Kg to 400 Kg Min. |
| 3.6 | Safe working load with monitor in the cage
Delivery upto 2370 LPM | : | 270 Kg Min. |
| 3.7 | Loading capacity of lifting eye under the
Cage (cage empty) | : | 270 Kg to 400 Kg Min |
| 3.8 | Operations at maximum outreach with
Full working load permitted in wind speed up to | : | 12.0 Mtr/ Sec. |
| 3.9 | The unit will be suitable for test at the load | : | 1.25 times dynamic & 1.5
times static of SWL |
| 3.10 | Operating time at full stroke for all operations | : | As per applicable
standards |
| 3.11 | Overall length in traveling position | : | 11.37mtrs max |
| 3.12 | Overall width of the vehicle | : | 2.50 mtrs max |
| 3.13 | Overall Height in traveling position | : | 3.55 mtrs max |
| 3.14 | Maximum width of the vehicle when
Jacks are fully extended on both sides | : | 5.5 to 4.90 mtrs max |
| 3.15 | Max. Gross Vehicle Weight | : | 16.2 tons Max |

- The cage shall be designed for not less than 400 to 270 Kgs. working load.
- Though the cage capacity prescribed in the specification is 270 Kg., if there is any variation in the said capacity , and if it is justifiable by any alternative / additional features those meet with the efficiency & performance , may be accepted as per the predefined evaluation process.
- Variation in the specifications/ requirements of plus – Minus 5% to 10% shall be accepted.

4. **CONSTRUCTION:**

The appliance shall be robust in construction; materials used in construction shall be carefully selected for lightness and durability. Use of timber shall be restricted in bodywork and use of rubber shall be avoided as far as possible. Ferrous metal parts shall be treated for anti - corrosion by a method other than electro-plating.

5. **LADDER SET:**

- 5.1 The vehicle shall perform the following functions/ operations
 - 5.1.1 Elevation
 - 5.1.2 Depression
 - 5.1.3 Extension & housing
 - 5.1.4 Rotation 360 degree in either direction
- 5.2 All the operations shall be electro-hydraulically operated with the help of hydraulic cylinders, wire ropes, chain etc. The system shall be purpose built to provide smooth takeoff, variable speed range and smooth slowdown, based on the criteria laid down under prEN 14043 or any other relevant standards applicable for these kind of vehicles.
- 5.3 There shall be Five ladder Sections, with telescopic movement made from high grade, corrosion resistant steel and shall have minimum wind catching area. The ladder sections shall be extended and retracted telescopically and simultaneously.
- 5.4 Based on the selected outrigger position and cage load, the system selects automatically the maximum outreaches to all directions. The system capacity shall enable various outreach curves for each direction. The working area of the ladder shall be divided in to six sectors like front right, right side, rear right, rear left, rear side, and front left. The size of each sector shall automatically be defined based on position of outriggers. The outreach control system shall practically be infinitely variable.
- 5.5 The lower ladder section shall be bolted to turret. The ladder sections shall be welded construction; welding method shall be of latest technology to provide high durability and extreme accuracy. For high strength and minimum flexing of the ladder sections only high tensile strength steels shall be used.
- 5.6 The main boom elevation and lowering shall be controlled by two hydraulic cylinders that both have their separate safety devices and can alone carry the entire load in case of failure of any one of the cylinders.
- 5.7 All telescopic sections of the ladder shall move in a synchronized way and there shall not be any intermediate jerks during extension / retraction. Automatic slowdown mechanism at the beginning of the movement as well as end of the movement shall be provided to all ladder movements. All the moving sections shall be fitted with adjustable guides/ rollers to provide smooth and accurate movement. Various maintenance points shall be located well at hand either outside the ladder or behind easily removable covers.
- 5.8 The extension and retraction cylinders or wire ropes shall be so laid, it should not caused any hindrance for climbing to a fireman. The ladder rungs shall be Anti Skid design and extension and retraction cables shall be provided with tension adjustment mechanism.

- 5.9 The ladder shall be possible to elevate from –10 to +75 degree minimum angle. The rotation movement shall be continuous through 360 degree at all angle of elevation except for the cabin protection area. In driving condition, the ladder set shall be placed on the ladder head rest.
- 5.10 All the sliding sections shall have maintenance free Nylon/Steel rollers for sliding movements and means shall be provided for the lubrication of these rollers at an easily accessible position.
- 5.11 Hook On type additional ladder shall be provided for the access to main ladder assembly from the ground. A lifting eye shall be provided at the head of the ladder section with a load capacity of 3000 kgs.
- 5.12 An attachment system shall be provided at the top of ladder and in cage for fixing water monitor. The monitor attachment shall be quick connect type without the use of bolts and nuts. The monitor can either be permanently mounted on ladder top or can be kept at some other suitable place.
- 5.13 All main ladder movements shall be possible individually and simultaneously. While using simultaneous movements there shall not be reduction in the speed of ladder movements. The ladder leveling (plumbing) movement shall be automatic in nature with manual ON/OFF facility.
- 5.14 All the ladder movements except rotation, just before reaching the limit shall slowed down automatically until rest. In addition to this, the ladder lowering rate shall proportionally be decrease with increasing ladder length in order to avoid excessive swinging of ladder tip when ladder movement stops.
- 5.15 The functional, ergonomically designed main operating control consol shall be provided on the left hand side of turn table, with suitable operator seat. The following controls shall be provided on main control.
- 5.15.1 Lever/joy stick for rotation and elevation and depression.
 - 5.15.2 Lever/Joy stick for extension and retraction.
 - 5.15.3 Foot pedal for oil pressure ON/OFF (Dead Man type switch)
 - 5.15.4 Button for engine Start/Stop.
 - 5.15.5 Button for ladder leveling (Plumbing) ON/OFF.
 - 5.15.6 Button for rungs in alignment.
 - 5.15.7 Button for One man/Two man/Three man selection.
 - 5.15.8 Button for lighting ON/OFF.
 - 5.15.9 Button for emergency stop.
 - 5.15.10 Volume control for main control stand speaker and speaker at ladder top.
 - 5.15.11 Microphone for intercom system.
 - 5.15.12 Lever for emergency operation ladder and jacks.

5.15.13 Graduated Arc with pendulum.

5.15.14 Button for automatic housing of ladder in the head rest.

5.15.15 Display screen.

5.16 The ladder set shall be primed and painted for long life span, treated against rust and corrosion.

6. **HYDRAULIC CYLINDERS:**

6.1 The Hydraulic cylinders shall be double acting, fitted with lock valves so as to prevent ladder set, working cage from lowering or the outriggers from retracting in case of pipe or hose failure.

6.2 The cylinders shall be provided with automatic dampers to prevent the pressure shocks and shall dampen the movement when a mechanical stop is reached.

6.3 Retraction of the outriggers shall be automatically prevented as soon as the ladder set have been lifted up from their transport position by way of electrical OR Hydraulic interlock system.

6.4 The ladder elevation and lowering has to be controlled by two hydraulic cylinders that both have their separate safety devices and both can alone carry the entire load in case of failure of any one of the cylinders.

6.5 The piston rods of the outrigger cylinders have to be fully enclosed within rectangular steel profile in order to protect piston rod from damage caused by any external impacts.

6.6 Lifting of the ladder set from the transport position shall be prevented before the outriggers are in support position and there shall be a limiting circuit to prevent damage to the Drivers cabin by the first boom when not clear of the cabin.

6.7 All the movements shall be automatically limited in their extreme position and the working cage shall be prevented from working outside of the permitted working range in any position.

6.8 An emergency stop switch shall be provided on both control panels, which shall switch off the hydraulic pressure of all movements and shall stop the vehicle engine.

7. **TURN-TABLE:**

7.1 The turntable shall be fully integrated steel structure containing center post, slip rings, water line, etc duly fastened to the main frame by means of slewing ring.

7.2 The rotation for the turntable shall be controlled by hydraulic motor with brakes.

- 7.3 The base control station shall be attached to the turntable so as to rotate with it and be accessible in all positions of the turntable.
- 7.4 The hydraulic distributor (center post) shall be mounted in the center of the turntable at an accessible position and shall carry the hydraulic pressure and return lines, electrical supply lines & water line allowing continuous rotation in either direction.
- 7.5 The fasteners retaining turntable to the rotation mechanism shall be of proper grade and shall be torqued properly.
- 7.6 The rotation gearbox fastener shall be of proper grade and torqued with proper backlash.
- 7.7 There shall be provision for the manual rotation of turntable in case of failure of hydraulic system.
- 7.8 Pins securing the hydraulic cylinders shall be properly installed and secured.
- 7.9 The hydraulic hoses, tubing and connections provided in the turntable shall be free from kinks, chaffing or leaks.

8. **STABILISING / JACKING SYSTEM:**

- 8.1 The Jacking system shall consist of hydraulically operated four outriggers mounted in their housings. Each housing shall be fitted with adjustable guides to provide smooth and accurate movement of the outrigger beam. The outrigger piston rods shall be completely protected by closed steel profile.
- 8.2 The Jacks shall be H-type or Inclined vario configuration, each side shall have two separate hydraulic cylinders, the first of which pushes the horizontal outrigger beam out and the second shall push the vertical/inclined Jack down.
- 8.3 The jack shall be provided with ground pressure sensors, which shall be correctly actuated before the ladder set is operated to ensure proper stabilization.
- 8.4 Each Vertical/inclined jack shall be provided with self-aligning footplate to spread the load evenly and allow the operation on uneven ground.
- 8.5 The Jacking shall be able to level the vehicle upto 7 degree sideways and with automatic leveling system.
- 8.6 The jacking system shall be controlled by two separate control panels provided on left and right side of the vehicle at rear with following controls.
 - 8.6.1 Left side front and rear outrigger beam out.

- 8.6.2 Right side front and rear outrigger beam out.
- 8.6.3 Left side jacks down
- 8.6.4 Right side jacks down.
- 8.6.5 Automatic axle locking mechanism.
- 8.6.6 Display screen.
- 8.6.7 Cage folding in isolation switch.
- 8.6.8 Vehicle leveling gauge

- 8.7 All the jack movements shall be infinitely variable within the full jacking width.

- 8.8 The Jacking systems shall allow operating each jack individually and the jack projection shall be recognized by the controlling system and the maximum outreach shall automatically be calculated as per the jacks width.

- 8.9 The jacks shall be controlled individually or in pair with lever /joystick and the control panel shall be situated in such a position that, the operator will have clear look to the right and left hand side while extending the jacks. The control panel shall be located at the rear side of the vehicle.

- 8.10 Yellow Flashing warning lights shall be provided at the outer most point of the jacks to identify the position of the jacks during night operation.

- 8.11 Four wooden spreader plates shall be provided for the use, when the vehicle is to be operated on soft ground.

- 8.12 The Vehicle shall be provided with inclinometer preferably digital alongwith conventional Spirit level gauge which will measure both fore, aft and Sideways inclination of the vehicle upto minimum 7 degree.

- 8.13 The stabilizing system shall also incorporate axle-locking mechanism..

- 8.14 The available outreach to all directions must be shown on the outrigger display, before the ladder is extended. This is to save time in an emergency situation, giving the operator the possibility to see the available outreach before setting up the machine.

- 8.15 The locker containing outrigger controls shall be fitted with an automatically operating door switch and a light for night operation.

9 **ELECTRONIC SAFETY AND OUTREACH SYSTEM:**

- 9.1 The computer-controlled system shall allow the outriggers to be positioned and the system shall be capable to select automatically the maximum allowed outreach to front, rear, right and left side. Based on calculations and parameters saved in the system to guarantee exactly the same outreach regardless of the external influences like wind speed and direction, temperature, friction of the

cylinders, etc.

9.2 The display units of the system shall show maximum possible outreach and position of the working cage in real-time along with other details.

9.3 The electronic system shall be approved according to the valid standards and directives. The system shall be EMC tested (EU directive 89/336/EEC) and CE type tested by TUV or any other appropriate agency.

10. **CAGE:**

10.1 The working cage shall be attached to the tip of top section and it shall be foldable. There shall be sufficient space for three persons and safe working load shall not be less than 275 kgs. excluding the equipment permanently mounted in the cage. The leveling of the cage shall be controlled automatically by an electro/hydraulically mechanism with manual override in case of emergency. The controls for folding over and in working position shall be integrated into the control panel for the jacking system. The entrance to the cage shall be provided from the front and rear.

10.2 The cage shall be made of tubular steel/Aluminum profile, welded together and painted with special paint with high durability in case of steel cage. The dimensions of the working cage shall be such that it shall provide sufficient space for three men. The top railing shall be part of the cage door so that entering into the cage without bending is possible.

10.3 The cage shall be designed for not less than not less than 275 Kgs working load and shall be tested for min. 1.5 times overload capacity.

10.4 The cage shall be quick removable type whenever needed.

10.5 An emergency cage operation shall be provided in case of failure of electricity by means of Hand/Foot pump.

10.6 The cage control shall allow all ladder movement to be performed infinitely variable. During cage operation, the movement shall be automatically controlled by the safety system. When the ladder is operated from the cage, the speed of movements shall be the same as ladder control from main control consol.

10.7 The location of cage control shall be such that the operator shall have clear look on all side when operating the ladder from the cage. The Joy stick/Levers in the cage shall be identical that of the main console. The cage control panel shall always be visible and accessible, even main the additional equipment is used by the fireman.

- 10.8 The cage control shall have following controls on the control panel.
 - 10.8.1 Lever/joy stick for rotation and elevation and depression.
 - 10.8.2 Lever/Joy stick for extension and retraction.
 - 10.8.3 Foot pedal for oil pressure ON/OFF (Dead Man type switch)
 - 10.8.4 Button for engine Start/Stop.
 - 10.8.5 Button for rungs in alignment.
 - 10.8.6 Button for One man/Two man/Three man selection.
 - 10.8.7 Button for lighting ON/OFF.
 - 10.8.8 Button for emergency stop.
 - 10.8.10.Button for automatic housing of ladder.
 - 10.8.11 microphone-cum-speaker for intercom system.
 - 10.8.12 Display screen.
 - 10.8.13 Button for cage light ON/OFF.
- 10.9 Two wide angle flood light shall be provided in front of the cage for illumination for night operation.
- 10.10 The cage shall be provided with collision safety device to protect the cage against damage due to impacts while in operation. All ladder movements shall be stop automatically when the cage collusion system is activated.

11 **HYDRAULIC SYSTEM:**

- 11.1 The Hydraulic power shall be provided by a reliable and adequate capacity variable displacement axial piston pump, which shall be driven by the vehicle power take off.
 - 11.2 When no operation of the ladder is activated, the pump shall rotate on minimum flow and minimum pressure. When oil pressure foot paddle is pressed, the engine should automatically go to pre set limit and also activate the necessary hydraulic oil supply to all the circuits.
 - 11.3 There shall be a provision of instant couplings for attachment of manometer in each pressure line for checking pressure of each circuit.
 - 11.4 The suitable filtration system of the hydraulic oil shall be provided on the vehicle to insure a good quality of oil entering into the system.
 - 11.5 All hydraulic cylinders shall be double acting with hard chrome plated piston rods and shall be fastened by means of preferably self-aligning ball bearings to prevent lateral forces from damaging the seals or piston rods of the cylinders.
- (c) Hydraulic oil tank shall be provided into the turn table of suitably capacity. There shall be a proper heat dissipation system. The tank shall be fitted with oil level gauge, and suction connections with closing valves for easy maintenance and draining outlet with closing valve.

12. **BACK-UP FOR THE HYDRAULIC SYSTEM:**

- 12.1 The hydraulic power for all necessary ladder movements shall provide manually via a separate hydraulic hand pump. The hydraulic pump shall be provided at suitably place safe and easy operation.
- 12.2 In case of failure of main control panel system, emergency operation of all ladder movements shall be possible. All the ladder movements shall be safely controlled with hydraulic system from the main control consol.

13 **CONTROLS AND SAFETY:**

- 13.1 The Electrical supply needed for control system shall be taken from the vehicle battery which shall be charged when the engine is running.
- 13.2 When the vehicle is in operation yellow flashing warning lights mounted on the outriggers shall automatically remain on.
- 13.3 The engine starting and stopping switch shall be provided on all control panels and the engine speed shall be increased to the preset level as soon as the foot paddle is pressed.
- 13.4 All boom and rotation movements shall be controlled electro-hydraulically by means of proportional valves. The proportional valve shall not be sensitive to changes of ambient or oil temperature, and shall provide smooth, safe and very accurate movements even in most severe operating conditions.
- 13.5 The speed of the ladder for lowering and extension shall be automatically reduced at maximum outreach. The ladder lifting speed shall be reduced before the maximum elevation.
- 13.6 All control movements can be performed by the control system from both control panels and the outreach can be selected by the positioning the outriggers. The variable system shall consist two displays, the graphical display and real time information about the outreach and the cage position and also to show possible movements according to cage position by animated arrows. In the text display there shall be main texts for:
 - 13.6.1 Warnings
 - 13.6.2 Emergency situations
 - 13.6.3 Help manual
 - 13.6.4 Fault finding system
- 13.7 There shall be control light for the axle locking system which will be mounted on the dash board. The signal will remain on when the power take off is switched off but the axle locked is not disengaged, and / or the cage is still in operation. Preferably with warning buzzer.

- 13.8 There shall be two independent drive elements to secured the ladder set of which each is capable of keeping the ladder in its present position during the ladder movements.
- 13.9 There shall be an inter locked only permits the ladder sets to be lifted from the head rest and thereafter other movements are possible.
- 13.10 There shall be a load measuring system for stability and security of the ladder parts. The ladder movements shall stop automatically due to projection and / or additional load such as rescue persons, in conjunction with the jacking widths and the actual remaining loads.
- 13.11 An operating range display shall continuously shows the total working range and the present load situation. The position of the ladder and the load limit in conjunction with the jacking widths shall display simultaneously.
- 13.12 For the stability of the ladder, the speed of all the movements shall slow down smoothly and automatically before reaching the final position and automatically stop all movements in the defined final position.
- 13.13 For the tactical requirement during the emergency operation, there shall be a system, which allows the ladder to reach the operational limit beyond the free standing limit, when the ladder head is supported against the wall.
- 13.14 When the ladder reaches to its operational limits. There shall be automatic final stopping of all ladder movements except for retraction and rotation.
- 13.15 There shall be a driver's cabin protection mechanism, which will stop respective ladder movement to avoid collision of ladder with cabin.
- 13.16 There shall be an impact cut out which will stop all ladder movements.
- 13.17 An automatic hydraulically operated and electronically control leveling system (plumbing) shall be active all elevation and inclination angles. It shall guarantee that, the rounds are always horizontal up to angle of 7° . The plumbing mechanism can be switch off / on from the main control console.

14. **OPEARTING RANGE DISPLAY:**

- 14.1 An operating range display shall be provided at main control console, cage control console and stabilizing system control console, which shall provide an information to the operator. The various signalers coming from the sensors, computer shall be processed and visually represented in the form of text or symbol on the display.
- 14.2 A scale down representation of the actual available range of operation shall be displayed showing exactly the ladder position, projection, ladder length, height

and angle of elevation.

- 14.3 A microprocessor shall control and monitor all ladder movements and safety system. If the safe operating limit are reached, the ladder movement shall be blocked automatically and a corresponding message / indicator shall be shown on display screen.
- 14.4 The display shall show text message of operational faults including its consequences.
- 14.5 The operating range display shall be illuminated suitably for easy reading during the night operation.

15. CONTROLS AND INDICATORS IN DRIVERS CAB:

- 15.1 The following control and indicators shall be provided in drivers cabin.
 - 15.1.1 Visual warning for any of the equipment lockers being open
 - 15.1.2 Visual warning for the ladder set not being fully in transportation position
 - 15.1.3 Switch with visual indication for rotating beacons
 - 15.1.4 Switch with visual indication for siren unit
 - 15.1.5 Microphone for the public address system

16 BODY WORK AND EQUIPMENT LOCKERS:

- 16.1 The structure for the bodywork shall be made up of various Aluminium profiles properly fixed together by riveting, bolting or welding.
- 16.1 The complete external paneling of the rear body shall be made from 16SWG Aluminium sheet fitted to the structural member either by gluing or riveting.
- 16.2 The complete flooring of the rear deck shall be made from non skid aluminum chequered plate of 10SWG properly riveted or bolted to the superstructure members.
- 16.3 For the easy access to the rear deck from ground level, there shall be sufficient nos of recessed steps on both sides of the vehicle provided with suitable grab handles.
- 16.4 Sufficient nos. of lockers shall be provided on both side of the vehicle for keeping various accessories and equipments. The locker shall be so made that load distribution on both sides is equal. All the lockers shall be provided with rolling shutters properly sealed for water and dust ingress. All the doors of the lockers shall be fitted with automatic switches activating the light as soon as the door is opened and also activating the warning light in Drivers cab.

16.5 There shall be a bench type crew seat suitable for 5 firemen fitted on the rear deck just behind the drivers cabin. This seat shall be properly upholstered and shall be provided with safety belts.

17 THE WATER MONITOR:

17.1 The manually operated monitor can either be attached to the ladder head or in the rescue cage and shall be provided with standard 63 mm. BS male coupling.

17.2 The out put of the monitor shall not be less than 1200 LPM at 10 bar and throw range shall be approx 40 mtrs.

17.3 The monitor can be moved vertically upward and downward up to -15° to $+60^{\circ}$. The horizontal movement up to 30° left side and right side.

17.4 The monitor shall be fed with water through nylon delivery hose of 63 mm internal dia. meter of 40mtrs. in length with suitable BS male and female couplings.

18. INTER COMMUNICATION SYSTEM:

18.1 There shall be fully transistorised talk back inter communication system fitted between turntable and the cage.

18.2 The system shall be combined microphone and loudspeaker for hands free operation and shall be located in the cage. The turntable control station is also equipped with microphone, which shall be integrated in the loudspeaker with volume control.

18.3 The microphone and the loudspeaker shall be sealed properly and it shall be protected from the ingress of water, dust and humidity.

19 ELECTRIC SYSTEM:

19.1 The electrical supply shall be taken from the vehicle batteries, which are kept charged when the engine is running. Voltage of the system shall be 24 V DC and all circuits shall be provided with specific fuses depending on the current consumption of that circuit.

19.2 When the main current is switched on, yellow flashing warning lights located at each outrigger and ladder set pivoting point shall automatically be switched on.

19.3 2x 24 volts, 70 watts, spotlights with swivel mounting bracket shall be fitted at the cage railing in the front side to provide extra safety during night operation. The switch for these lights shall either be provided on the light itself or on both the control panels.

19.4 Two rotating beacon lights shall be provided on each side of the drivers cab roof with Amber colour lens. The switch for switching the beacons on and off with suitable signal light shall be integrated in the control panel of siren cum public address system. The beacon light shall be either Bosch or Hella make.

20 **SIREN AND PUBLIC ADDRESS SYSTEM:**

20.1 There shall be an electric siren unit fitted on the roof of the vehicle cabin or at a suitable place with the control unit mounted conveniently inside the driver cabin. It shall have the fast (yelp) and slow (wail) sound modes with integrated switch for rotating beacon lights.

20.2 Command microphone, which is fitted with push-to-talk switch, allows the public address message to override the siren function. Operations are controlled by non glare-illuminated push buttons of different colours on control panel shall be provided.

21 **FAULT FINDING SYSTEM:**

21.1 The control system of the vehicle shall have self-fault finding system. If any fault occurs during the operation, the system shall find out the same and shall show the location of the defective component on the display. The system shall incorporate simple test screens to enable testing of the working cage and the turntable control panels. The tests shall also cover display unit, push buttons, joysticks.

21.2 For maintenance purposes the following tools shall be provided as standard supply:

21.2.1 Fault finding system and fault register

21.2.2 Status screens for sensors, switches, hydraulic valves, control lamps, etc.

21.2.3 Total operation and hour meter

21.2.4 Service laptop with compatible software relevant to the system.

22. **PAINTING:**

22.1 Before painting all surfaces of steel structures shall be carefully shot blasted after which they shall be primed and then applied the coat of approved paint. All the ladder set shall also be painted from all the sides.

22.2 For very high corrosion resistance of hollow structures such as steel profiles of the working cage, ladder set, outrigger beams and housings shall be treated with anti-corrosion protection preferably with "TECTYL".

22.3 The following Paint shades shall be used:

22.3.1 Working cage & wheel rims : White aluminium RAL 9006

22.3.2 Ladder support, Turntable and related Cylinders: Red RAL 3000

- 22.3.3 Body work including cabin : Red RAL 3000
 22.3.4 Chassis frame touch-ups : Chassis original tone

22.4 The word “MAHARASHTRA FIRE SERVICE ” shall be painted on both side of the vehicle at suitable place as per the instructions of the DIRECTOR.

22.5 The emblem of MAHARASHTRA FIRE SERVICE shall be painted on both side of the vehicle in Natural colour

ACCESSORIES:

- 22.6 Wooden outrigger ground pads/ plates with brackets - 4 Nos
 22.7 Working range diagrams, at turntable & in the cage - 2 Nos
 22.8 Marking of safe working load in the cage - 1 No
 22.9 Unit type marked on the ladder. - 2 Nos
 22.10 Warning labels and instruction plates - 1 set
 22.11 Operation and maintenance manuals for TTL and Chassis. - 2 sets
 22.12 Plug for 24 V working light at the turntable and in the working cage - 1 No
 22.13 Lifting hook under the working cage, capacity 400 kg - 1 No
 22.14 Hydraulic pressure gauge - 2 No
 22.15 Service laptop with all accessories compatible to system - 1 No
 22.16 Set of tools & accessories required for the repairs & maintenance of TTL, chassis, & other systems - 1set

24. **INSTRUCTION MANUALS:**

24.1 Two sets of complete instruction manual for the operation and maintenance of Turntable Ladder unit (including all systems), stand by systems, chassis and itemized spare parts list shall be supplied along with electrical circuit diagrams, hydraulic circuit diagrams.

24.2 All the manuals, circuit diagrams, literature etc shall be in English language.

25 **DRAWINGS:**

25.1 The complete detailed drawings of Turntable Ladder duly mounted on chassis specified herein shall be submitted along with the tender.

25.2 The working range diagram along with all the details shall also be submitted along with the tender.

26 **STABILITY:**

The stability of the vehicle (in traveling position) when fully equipped and loaded (excluding crew member), with ladder resting on the resting stand and without extending the stabilizing jacks shall be such that it shall remain stable and shall not overturn even if the surface on which the vehicle stands has inclination on

either side from the horizontal as per the standards stipulated under prEN 14043. The tenderer shall specifically mention the angle of overturning in their offer. The manufacturer to that effect shall furnish a certificate at the time of supply.

**SPECIFICATIONS FOR FABRICATION AND SUPPLY OF TURNTABLE LADDER
40 Mtrs. to 45 Mtrs. METER HEIGHT FOR FIRE FIGHTING AND RESCUE
OPERATION WITH FIVE (5) YEARS COMPREHENSIVE SERVICE MAINTENANCE
CONTRACT- 1 NO.**

1. GENERAL REQUIREMENT:

- c) 1.1 The Turntable Ladder shall be designed specifically for the purpose of fire fighting and rescue to enable firemen to go up and down. It shall comprise of ladder sections with a cage mounted at the end of top ladder section and the entire unit shall be mounted on a Turn-Table on a Heavy Duty Diesel - Engine chassis of VOLVO OR MAN OR MERCEDES BENZ make, 6X4, having approx. 4800 mm Wheel Base (as per CMVR 1989) with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall be Right Hand Drive and shall comply BS III or BS IV (EURO III/ EURO IV) emission norms as in force in the indenting city
- 1.2 The Turntable Ladder shall be designed as per the designed, operational stability and structural strength based on the criteria laid in prEN14044/ EN 14043 / EN 1777 AND EN 280 OR "JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK OR an equivalent standards meeting the criteria's laid down in EN standards and other norms and standards applicable for elevated raised platforms used for Fire Fighting and rescue operations and the certificate to that effect issued by the competent agency shall be enclosed with the tender..
- 1.3 The TTL shall be capable of use at any angle of elevation without any reduction of load capacity of the cage. It shall also rotate 360 degree at any angle of elevation as well as below ground level subject to ladder remaining clear of vehicle body.
- 1.4 The appliance shall be compact and fast on the road and easily maneuverable in the crowded streets and around sharp corners. The overall dimensions shall not exceed the limits specified herein.
- 1.5 The height of the Turntable Ladder when fully extended shall not be less than 40 Mtrs to 45 mtrs from the ground.
- 1.6 The Turntable Ladder shall be electro hydraulically controlled, permitting precise and easy operations under the most difficult conditions, with ample reserve strength and stability.
- 1.7 Full safety interlocks shall be incorporated in the design so as to ensure complete

safety in operations and long years of reliable and trouble free service, as far as possible the system shall be fail proof.

- 1.8 The design of the TTL shall allow a very large safety margin for extreme operating and climatic conditions. The safe working loads ratings shall include an allowance for the weight of water system and the reaction from the monitor jet while operation.
- 1.9 The Vehicle shall have a leveling system to adjust an angle not less than 7 degree and it shall be in automatic in nature.
- 1.10 There shall be a full back up system for all ladder movements and outrigger movement in case of failure of main system.
- 1.11 The Complete Movement of the TTL shall be computer controlled and the system shall be checked for interference sensitivity according to IEC-810-2.
- 1.14 The Control system of the TTL shall be fully tropicalised and able to operate in the temperature range upto + 60 degree centigrade and in a dusty and Humid condition without reducing the maximum operating limits.
- 1.15 The operation of ladder shall be possible from -10 + 75 degree.

2. CHASSIS:

- d) 2.1 The Chassis shall be of VOLVO OR MAN OR MERCEDES BENZ make, 6X4, having approx. 4800 mm Wheel Base (as per CMVR 1989) with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall be Right Hand Drive and shall comply BS III or BS IV (EURO III/ EURO IV) emission norms as in force in the indenting city
- 2.2 The Chassis shall be homologated from the appropriate authority in India in case not already an approved model.
- 2.3 The engine shall be six cylinders, inline, Diesel with direct injection, turbo charged with intercooler.
- 2.4 The displacement of the engine shall be 9.4 ltrs and developing 300 hp (220 kW.) at 2100 rpm.
- 2.5 The clutch shall be single plate, dry type, and power assistant.
- 2.6 The gearbox shall be nine speeds synchronized with crawler gear.
- 2.7 Rear Axle shall be Tandem Bogie type with Hub reduction and differential lock between the wheels and axles.

- 2.8 Chassis frame shall be 'C' Channel section made of high strength steel with cross members.
- 2.9 The Steering shall be integral power steering with collapsible steering wheel and column.
- 2.10 The Front Suspension shall be leaf spring type and the rear suspension shall be reverse scamel type with shock absorber in the front.
- 2.11 The Brakes shall be dual circuit airbrakes, 'Z' cam type with parking brakes acting on rear wheels.
- 2.12 Fuel Tank - Capacity shall be min 200ltrs with lockable fuel cap.
- 2.13 The Chassis shall be provided with 11.00R x 20 radial Tyres - 11nos with spare tyre.
- 2.14 The chassis shall be provided with single day type cab with RED colour, made from high strength steel fully trimmed, external panels hot dip galvanised with hydraulic cab tilting mechanism. The Cab suspension shall be provided with coil spring and shock absorber. The cab shall be provided with adequate ventilation, rear view mirrors, windscreen and windows, adjustable driver seat, wiper system and alongwith all other standard fitments.
- 2.15 The Electrical system shall be 24V, with suitable capacity batteries & Alternator for charging the batteries.
- 2.16 The chassis shall be supplied with standard tool kit, hydraulic jack of 20ton capacity, operator & workshop manuals.
- 2.17 The Chassis shall be fitted with gearbox mounted, suitable capacity Power Take Off Unit to drive the hydraulic pump for boom movements.
- 2.18 The Chassis shall be directly procured by the tenderer confirming to above specifications and shall be got homologated with the appropriate authority in India. The Transportation responsibility of the chassis upto tenderers manufacturing facility lies with the tenderer. The Chassis shall be insured while in transit.
- 2.19 The Chassis shall comply all the provisions and enactment of Motor Vehicle Act 1988 and Central Motor Vehicle Rules 1989 and any amendment from time to time.

3. **OPERATING REQUIREMENTS & DIMENSIONS OF FINISHED APPLIANCE:**

The Vehicle shall comply the following requirements

- | | | | |
|------|---|--|---------------------------|
| 3.1 | Max working Height | : | 42 to 45mtrs |
| 3.2 | Max. Height to working cage bottom | : | 40 to 43mtrs |
| 3.3 | Max Working outreach with 400kg cage load | : | 16 to 18mtrs |
| 3.4 | Rotation - Continuous | : | 360 degree |
| 3.5 | Safe working load in the cage on hard level
Ground with dry monitor | : | 270 kg to 400 Kg Min. |
| 3.6 | Safe working load with monitor in the cage
Delivery upto 2370 LPM | : | 275 Kg Min. |
| 3.7 | Loading capacity of lifting eye under the
Cage (cage empty) | : | 270 kg to 400 Kg Min. |
| 3.8 | Operations at maximum outreach with
Full working load permitted in wind speed upto | : | 12.0 Mtrs. / Sec. |
| 3.9 | The unit will be suitable for test at the load : | 1.25 times Dynamic 1.5 times static of SWL | |
| 3.10 | Operating time at full stroke for all operations | : | As per prEN 14043 |
| 3.11 | Overall length in traveling position | : | 11.37 mtrs max |
| 3.12 | Overall width of the vehicle | : | 2.50 mtrs max |
| 3.13 | Overall Height in traveling position | : | 3.55 mtrs max |
| 3.14 | Maximum width of the vehicle when
Jacks are fully extended on both sides | : | 5.5 mtrs. to 4.90mtrs max |
| 3.15 | Gross Vehicle Weight | : | Max. 16.2 tons max. |

- The cage shall be designed for not less than 400 to 270 Kgs. working load.
- Though the cage capacity prescribed in the specification is 270 Kg., if there is any variation in the said capacity , and if it is justifiable by any alternative / additional features those meet with the efficiency & performance , may be accepted as per the predefined evaluation process.
- Variation in the specifications/ requirements of plus – Minus 5% to 10% shall be accepted.

4. **CONSTRUCTION:**

The appliance shall be robust in construction; materials used in construction shall be carefully selected for lightness and durability. Use of timber shall be restricted in bodywork and use of rubber shall be avoided as far as possible. Ferrous metal parts shall be treated for anti - corrosion by a method other than electro-plating.

5. **LADDER SET:**

- 5.1 The vehicle shall perform the following functions/ operations
 - 5.1.1 Elevation
 - 5.1.2 Depression
 - 5.1.3 Extension & housing
 - 5.1.4 Rotation 360 degree in either direction

- 5.2 All the operations shall be electro-hydraulically operated with the help of hydraulic cylinders, wire ropes, chain etc. The system shall be purpose built to provide smooth takeoff, variable speed range and smooth slowdown, based on the criteria laid down under prEN 14043 or any other relevant standards applicable for these kind of vehicles.

- 5.5 There shall be Five ladder Sections, with telescopic movement made from high grade, corrosion resistant steel and shall have minimum wind catching area. The ladder sections shall be extended and retracted telescopically and simultaneously.

- 5.6 Based on the selected outrigger position and cage load, the system selects automatically the maximum outreaches to all directions. The system capacity shall enable various outreach curves for each direction. The working area of the ladder shall be divided in to six sectors like front right, right side, rear right, rear left, rear side, front left. The size of each sector shall automatically be defined based on position of outriggers. The outreach control system shall practically be infinitely variable.

- 5.5 The lower ladder section shall be bolted to turret. The ladder sections shall be welded construction; welding method shall be of latest technology to provide high durability and extreme accuracy. For high strength and minimum flexing of the ladder sections only high tensile strength steels shall be used.

- 5.6 The main boom elevation and lowering shall be controlled by two hydraulic cylinders that both have their separate safety devices and can alone carry the entire load in case of failure of any one of the cylinders.

- 5.16 All telescopic sections of the ladder shall move in a synchronized way and there shall not be any intermediate jerks during extension / retraction. Automatic slowdown mechanism at the beginning of the movement as well as end of the movement shall be provided to all ladder movements. All the moving sections shall be fitted with adjustable guides/ rollers to provide smooth and accurate movement. Various maintenance points shall be located well at hand either outside the ladder or behind easily removable covers.

- 5.17 The extension and retraction cylinders or wire ropes shall be so laid, it should not

- caused any hindrance for climbing to a fireman. The ladder rungs shall be Anti Skid design and extension and retraction cables shall be provided with tension adjustment mechanism.
- 5.18 The ladder shall be possible to elevate from –10 to +75 degree minimum angle. The rotation movement shall be continuous through 360 degree at all angle of elevation except for the cabin protection area. In driving condition, the ladder set shall be placed on the ladder head rest.
- 5.19 All the sliding sections shall have maintenance free Nylon/Steel rollers for sliding movements and means shall be provided for the lubrication of these rollers at an easily accessible position.
- 5.20 Hook On type additional ladder shall be provided for the access to main ladder assembly from the ground. A lifting eye shall be provided at the head of the ladder section with a load capacity of 3000 kgs.
- 5.21 An attachment system shall be provided at the top of ladder and in cage for fixing water monitor. The monitor attachment shall be quick connect type without the use of bolts and nuts. The monitor can either be permanently mounted on ladder top or can be kept at some other suitable place.
- 5.22 All main ladder movements shall be possible individually and simultaneously. While using simultaneous movements there shall not be reduction in the speed of ladder movements. The ladder leveling (plumbing) movement shall be automatic in nature with manual ON/OFF facility.
- 5.23 All the ladder movements except rotation, just before reaching the limit shall slowed down automatically until rest. In addition to this, the ladder lowering rate shall proportionally be decrease with increasing ladder length in order to avoid excessive swinging of ladder tip when ladder movement stops.
- 5.24 The functional, ergonomically designed main operating control consol shall be provided on the left hand side of turn table, with suitable operator seat. The following controls shall be provided on main control.
- 5.24.1 Lever/joy stick for rotation and elevation and depression.
- 5.24.2 Lever/Joy stick for extension and retraction.
- 5.24.3 Foot pedal for oil pressure ON/OFF (Dead Man type switch)
- 5.24.4 Button for engine Start/Stop.
- 5.24.5 Button for ladder leveling (Plumbing) ON/OFF.
- 5.24.6 Button for rungs in alignment.
- 5.24.7 Button for One man/Two man/Three man selection.
- 5.24.8 Button for lighting ON/OFF.
- 5.24.9 Button for emergency stop.
- 5.15.10 Volume control for main control stand speaker and speaker at ladder top.
- 5.15.11 Microphone for intercom system.

5.15.12 Lever for emergency operation ladder and jacks.

5.15.13 Graduated Arc with pendulum.

5.15.14 Button for automatic housing of ladder in the head rest.

5.15.15 Display screen.

5.16 The ladder set shall be primed and painted for long life span, treated against rust and corrosion.

6. **HYDRAULIC CYLINDERS:**

6.1 The Hydraulic cylinders shall be double acting, fitted with lock valves so as to prevent ladder set, working cage from lowering or the outriggers from retracting in case of pipe or hose failure.

6.2 The cylinders shall be provided with automatic dampers to prevent the pressure shocks and shall dampen the movement when a mechanical stop is reached.

6.3 Retraction of the outriggers shall be automatically prevented as soon as the ladder set have been lifted up from their transport position by way of electrical OR Hydraulic interlock system.

6.4 The ladder elevation and lowering has to be controlled by two hydraulic cylinders that both have their separate safety devices and both can alone carry the entire load in case of failure of any one of the cylinders.

6.5 The piston rods of the outrigger cylinders have to be fully enclosed within rectangular steel profile in order to protect piston rod from damage caused by any external impacts.

6.6 Lifting of the ladder set from the transport position shall be prevented before the outriggers are in support position and there shall be a limiting circuit to prevent damage to the Drivers cabin by the first boom when not clear of the cabin.

6.7 All the movements shall be automatically limited in their extreme position and the working cage shall be prevented from working outside of the permitted working range in any position.

6.9 An emergency stop switch shall be provided on both control panels, which shall switch off the hydraulic pressure of all movements and shall stop the vehicle engine.

7. **TURN-TABLE:**

7.1 The turntable shall be fully integrated steel structure containing center post, slip rings, water line, etc duly fastened to the main frame by means of slewing ring.

- 7.2 The rotation for the turntable shall be controlled by hydraulic motor with brakes.
- 7.3 The base control station shall be attached to the turntable so as to rotate with it and be accessible in all positions of the turntable.
- 7.4 The hydraulic distributor (center post) shall be mounted in the center of the turntable at an accessible position and shall carry the hydraulic pressure and return lines, electrical supply lines & water line allowing continuous rotation in either direction.
- 7.5 The fasteners retaining turntable to the rotation mechanism shall be of proper grade and shall be torqued properly.
- 7.6 The rotation gearbox fastener shall be of proper grade and torqued with proper backlash.
- 7.7 There shall be provision for the manual rotation of turntable in case of failure of hydraulic system.
- 7.8 Pins securing the hydraulic cylinders shall be properly installed and secured.
- 7.9 The hydraulic hoses, tubing and connections provided in the turntable shall be free from kinks, chaffing or leaks.

8. **STABILISING / JACKING SYSTEM:**

- 8.1 The Jacking system shall consist of hydraulically operated four outriggers mounted in their housings. Each housing shall be fitted with adjustable guides to provide smooth and accurate movement of the outrigger beam. The outrigger piston rods shall be completely protected by closed steel profile.
- 8.2 The Jacks shall be H-type or Inclined vario configuration, each side shall have two separate hydraulic cylinders, the first of which pushes the horizontal outrigger beam out and the second shall push the vertical/inclined Jack down.
- 8.3 The jack shall be provided with ground pressure sensors, which shall be correctly actuated before the ladder set is operated to ensure proper stabilization.
- 8.4 Each Vertical/inclined jack shall be provided with self-aligning footplate to spread the load evenly and allow the operation on uneven ground.
- 8.5 The Jacking shall be able to level the vehicle upto 7 degree sideways and with automatic leveling system.
- 8.7 The jacking system shall be controlled by two separate control panels provided on left and right side of the vehicle at rear with following controls.

- 8.7.1 Left side front and rear outrigger beam out.
 - 8.7.2 Right side front and rear outrigger beam out.
 - 8.7.3 Left side jacks down
 - 8.7.4 Right side jacks down.
 - 8.7.5 Automatic axle locking mechanism.
 - 8.7.6 Display screen.
 - 8.7.7 Cage folding in isolation switch.
 - 8.7.8 Vehicle leveling gauge
- 8.7 All the jack movements shall be infinitely variable within the full jacking width.
- 8.8 The Jacking systems shall allow operating each jack individually and the jack projection shall be recognized by the controlling system and the maximum outreach shall automatically be calculated as per the jacks width.
- 8.9 The jacks shall be controlled individually or in pair with lever /joystick and the control panel shall be situated in such a position that, the operator will have clear look to the right and left hand side while extending the jacks. The control panel shall be located at the rear side of the vehicle.
- 8.10 Yellow Flashing warning lights shall be provided at the outer most point of the jacks to identify the position of the jacks during night operation.
- 8.11 Four wooden spreader plates shall be provided for the use, when the vehicle is to be operated on soft ground.
- 8.12 The Vehicle shall be provided with inclinometer preferably digital alongwith conventional Spirit level gauge which will measure both fore, aft and Sideways inclination of the vehicle upto minimum 7 degree.
- 8.13 The stabilizing system shall also incorporate axle-locking mechanism..
- 8.14 The available outreach to all directions must be shown on the outrigger display, before the ladder is extended. This is to save time in an emergency situation, giving the operator the possibility to see the available outreach before setting up the machine.
- 8.15 The locker containing outrigger controls shall be fitted with an automatically operating door switch and a light for night operation.

9 **ELECTRONIC SAFETY AND OUTREACH SYSTEM:**

- 9.1 The computer-controlled system shall allow the outriggers to be positioned and the system shall be capable to select automatically the maximum allowed outreach to front, rear, right and left side. Based on calculations and parameters saved in the system to guarantee exactly the same outreach regardless of the

external influences like wind speed and direction, temperature, friction of the cylinders, etc.

- 9.2 The display units of the system shall show maximum possible outreach and position of the working cage in real-time along with other details.
- 9.3 The electronic system shall be approved according to the valid standards and directives. The system shall be EMC tested (EU directive 89/336/EEC) and CE type tested by TUV or any other appropriate agency.

10. **CAGE:**

- 10.1 The working cage shall be attached to the tip of top section and it shall be foldable. There shall be sufficient space for three persons and safe working load shall not be less than 400 kgs. excluding the equipment permanently mounted in the cage. The leveling of the cage shall be controlled automatically by an electro/hydraulically mechanism with manual override in case of emergency. The controls for folding over and in working position shall be integrated into the control panel for the jacking system. The entrance to the cage shall be provided from the front and rear.
- 10.2 The cage shall be made of tubular steel/Aluminum profile, welded together and painted with special paint with high durability in case of steel cage. The dimensions of the working cage shall be such that it shall provide sufficient space for three men. The top railing shall be part of the cage door so that entering into the cage without bending is possible.
- 10.5 The cage shall be designed for 400 Kgs working load and shall be tested for min. 1.5 times overload capacity.
- 10.6 The cage shall be quick removable type whenever needed.
- 10.11 An emergency cage operation shall be provided in case of failure of electricity by means of Hand/Foot pump.
- 10.12 The cage control shall allow all ladder movement to be performed infinitely variable. During cage operation, the movement shall be automatically controlled by the safety system. When the ladder is operated from the cage, the speed of movements shall be the same as ladder control from main control consol.
- 10.13 The location of cage control shall be such that the operator shall have clear look on all side when operating the ladder from the cage. The Joy stick/Levers in the cage shall be identical that of the main console. The cage control panel shall always be visible and accessible, even main the additional equipment is used by the fireman.

- 10.14 The cage control shall have following controls on the control panel.
 - 10.14.1 Lever/joy stick for rotation and elevation and depression.
 - 10.14.2 Lever/Joy stick for extension and retraction.
 - 10.14.3 Foot pedal for oil pressure ON/OFF (Dead Man type switch)
 - 10.14.4 Button for engine Start/Stop.
 - 10.14.5 Button for rungs in alignment.
 - 10.14.6 Button for One man/Two man/Three man selection.
 - 10.14.7 Button for lighting ON/OFF.
 - 10.14.8 Button for emergency stop.
 - 10.8.10. Button for automatic housing of ladder.
 - 10.8.11 microphone-cum-speaker for intercom system.
 - 10.8.12 Display screen.
 - 10.8.13 Button for cage light ON/OFF.
- 10.15 Two wide angle flood light shall be provided in front of the cage for illumination for night operation.
- 10.16 The cage shall be provided with collision safety device to protect the cage against damage due to impacts while in operation. All ladder movements shall be stop automatically when the cage collusion system is activated.

11 **HYDRAULIC SYSTEM:**

- 11.1 The Hydraulic power shall be provided by a reliable and adequate capacity variable displacement axial piston pump, which shall be driven by the vehicle power take off.
- 11.2 When no operation of the ladder is activated, the pump shall rotate on minimum flow and minimum pressure. When oil pressure foot paddle is pressed, the engine should automatically go to pre set limit and also activate the necessary hydraulic oil supply to all the circuits.
- 11.3 There shall be a provision of instant couplings for attachment of manometer in each pressure line for checking pressure of each circuit.
- 11.4 The suitable filtration system of the hydraulic oil shall be provided on the vehicle to insure a good quality of oil entering into the system.
- 11.5 All hydraulic cylinders shall be double acting with hard chrome plated piston rods and shall be fastened by means of preferably self-aligning ball bearings to prevent lateral forces from damaging the seals or piston rods of the cylinders.
- (d) Hydraulic oil tank shall be provided into the turn table of suitably capacity. There shall be a proper heat dissipation system. The tank shall be fitted with oil level gauge, and suction connections with closing valves for easy maintenance and draining outlet with closing valve.

12. **BACK-UP FOR THE HYDRAULIC SYSTEM:**

- 12.3 The hydraulic power for all necessary ladder movements shall provide manually via a separate hydraulic hand pump. The hydraulic pump shall be provided at suitably place safe and easy operation.
- 12.4 In case of failure of main control panel system, emergency operation of all ladder movements shall be possible. All the ladder movements shall be safely controlled with hydraulic system from the main control consol.

13 **CONTROLS AND SAFETY:**

- 13.1 The Electrical supply needed for control system shall be taken from the vehicle battery which shall be charged when the engine is running.
- 13.2 When the vehicle is in operation yellow flashing warning lights mounted on the outriggers shall automatically remain on.
- 13.3 The engine starting and stopping switch shall be provided on all control panels and the engine speed shall be increased to the preset level as soon as the foot paddle is pressed.
- 13.6 All boom and rotation movements shall be controlled electro-hydraulically by means of proportional valves. The proportional valve shall not be sensitive to changes of ambient or oil temperature, and shall provide smooth, safe and very accurate movements even in most severe operating conditions.
- 13.7 The speed of the ladder for lowering and extension shall be automatically reduced at maximum outreach. The ladder lifting speed shall be reduced before the maximum elevation.
- 13.6 All control movements can be performed by the control system from both control panels and the outreach can be selected by the positioning the outriggers. The variable system shall consist two displays, the graphical display and real time information about the outreach and the cage position and also to show possible movements according to cage position by animated arrows. In the text display there shall be main texts for:
 - 13.6.1 Warnings
 - 13.6.2 Emergency situations
 - 13.6.3 Help manual
 - 13.6.5 Fault finding system
- 13.7 There shall be control light for the axle locking system which will be mounted on the dash board. The signal will remain on when the power take off is switched off but the axle locked is not disengaged, and / or the cage is still in operation. Preferably with warning buzzer.

- 13.8 There shall be two independent drive elements to secured the ladder set of which each is capable of keeping the ladder in its present position during the ladder movements.
- 13.18 There shall be an inter locked only permits the ladder sets to be lifted from the head rest and thereafter other movements are possible.
- 13.19 There shall be a load measuring system for stability and security of the ladder parts. The ladder movements shall stop automatically due to projection and / or additional load such as rescue persons, in conjunction with the jacking widths and the actual remaining loads.
- 13.20 An operating range display shall continuously shows the total working range and the present load situation. The position of the ladder and the load limit in conjunction with the jacking widths shall display simultaneously.
- 13.21 For the stability of the ladder, the speed of all the movements shall slow down smoothly and automatically before reaching the final position and automatically stop all movements in the defined final position.
- 13.22 For the tactical requirement during the emergency operation, there shall be a system, which allows the ladder to reach the operational limit beyond the free standing limit, when the ladder head is supported against the wall.
- 13.23 When the ladder reaches to its operational limits. There shall be automatic final stopping of all ladder movements except for retraction and rotation.
- 13.24 There shall be a driver's cabin protection mechanism, which will stop respective ladder movement to avoid collision of ladder with cabin.
- 13.25 There shall be an impact cut out which will stop all ladder movements.
- 13.26 An automatic hydraulically operated and electronically control leveling system (plumbing) shall be active all elevation and inclination angles. It shall guarantee that, the rounds are always horizontal up to angle of 7° . The plumbing mechanism can be switch off / on from the main control console.

14. **OPEARTING RANGE DISPLAY:**

- 14.6 An operating range display shall be provided at main control console, cage control console and stabilizing system control console, which shall provide an information to the operator. The various signalers coming from the sensors, computer shall be processed and visually represented in the form of text or symbol on the display.
- 14.7 A scale down representation of the actual available range of operation shall be

displayed showing exactly the ladder position, projection, ladder length, height and angle of elevation.

- 14.8 A microprocessor shall control and monitor all ladder movements and safety system. If the safe operating limit are reached, the ladder movement shall be blocked automatically and a corresponding message / indicator shall be shown on display screen.
- 14.9 The display shall show text message of operational faults including its consequences.
- 14.10 The operating range display shall be illuminated suitably for easy reading during the night operation.

15. CONTROLS AND INDICATORS IN DRIVERS CAB:

- 15.1 The following control and indicators shall be provided in driver's cabin.
 - 15.1.1 Visual warning for any of the equipment lockers being open
 - 15.1.2 Visual warning for the ladder set not being fully in transportation position
 - 15.1.3 Switch with visual indication for rotating beacons
 - 15.1.4 Switch with visual indication for siren unit
 - 15.1.5 Microphone for the public address system

16 BODY WORK AND EQUIPMENT LOCKERS:

- 16.1 The structure for the bodywork shall be made up of various Aluminium profiles properly fixed together by riveting, bolting or welding.
- 17.5 The complete external paneling of the rear body shall be made from 16SWG Aluminium sheet fitted to the structural member either by gluing or riveting.
- 17.6 The complete flooring of the rear deck shall be made from non skid aluminum chequered plate of 10SWG properly riveted or bolted to the superstructure members.
- 17.7 For the easy access to the rear deck from ground level, there shall be sufficient nos of recessed steps on both sides of the vehicle provided with suitable grab handles.
- 17.8 Sufficient nos of lockers shall be provided on both side of the vehicle for keeping various accessories and equipments. The locker shall be so made that load distribution on both sides is equal. All the lockers shall be provided with rolling shutters properly sealed for water and dust ingress. All the doors of the lockers shall be fitted with automatic switches activating the light as soon as the door is opened and also activating the warning light in Drivers cab.

17.9 There shall be a bench type crew seat suitable for 5 firemen fitted on the rear deck just behind the drivers cabin. This seat shall be properly upholstered and shall be provided with safety belts.

18 THE WATER MONITOR:

18.1 The manually operated monitor can either be attached to the ladder head or in the rescue cage and shall be provided with standard 63 mm. BS male coupling.

18.2 The out put of the monitor shall not be less than 1200 LPM at 10 bar and throw range shall be approx 40 mtrs.

18.3 The monitor can be moved vertically upward and downward up to -15° to $+60^{\circ}$. The horizontal movement up to 30° left side and right side.

18.4 The monitor shall be fed with water through nylon delivery hose of 63 mm internal dia meter of 40mtrs. in length with suitable BS male and female couplings.

INTER COMMUNICATION SYSTEM:

- There shall be fully transistorised talk back inter communication system fitted between turntable and the cage.
- The system shall be combined microphone and loudspeaker for hands free operation and shall be located in the cage. The turntable control station is also equipped with microphone, which shall be integrated in the loudspeaker with volume control.
- The microphone and the loudspeaker shall be sealed properly and it shall be protected from the ingress of water, dust and humidity.

ELECTRIC SYSTEM:-

- The electrical supply shall be taken from the vehicle batteries, which are kept charged when the engine is running. Voltage of the system shall be 24 V DC and all circuits shall be provided with specific fuses depending on the current consumption of that circuit.
- When the main current is switched on, yellow flashing warning lights located at each outrigger and ladder set pivoting point shall automatically be switched on.
- 2x 24 volts, 70 watts, spotlights with swivel mounting bracket shall be fitted at the cage railing in the front side to provide extra safety during night operation. The switch for these lights shall either be provided on the light itself or on both the control panels.

- Two rotating beacon lights shall be provided on each side of the drivers cab roof with Amber colour lens. The switch for switching the beacons on and off with suitable signal light shall be integrated in the control panel of siren cum public address system. The beacon light shall be either Bosch or Hella make.

SIREN AND PUBLIC ADDRESS SYSTEM:

- There shall be an electric siren unit fitted on the roof of the vehicle cabin or at a suitable place with the control unit mounted conveniently inside the driver cabin. It shall have the fast (yelp) and slow (wail) sound modes with integrated switch for rotating beacon lights.
- Command microphone, which is fitted with push-to-talk switch, allows the public address message to override the siren function. Operations are controlled by non glare-illuminated push buttons of different colours on control panel shall be provided.

- **FAULT FINDING SYSTEM:**

- The control system of the vehicle shall have self-fault finding system. If any fault occurs during the operation, the system shall find out the same and shall show the location of the defective component on the display. The system shall incorporate simple test screens to enable testing of the working cage and the turntable control panels. The tests shall also cover display unit, push buttons, joysticks.
- For maintenance purposes the following tools shall be provided as standard supply:-
 - Fault finding system and fault register
 - Status screens for sensors, switches, hydraulic valves, control lamps, etc.
 - Total operation and hour meter
 - Service laptop with compatible software relevant to the system.

SPECIFICATIONS FOR FABRICATION AND SUPPLY OF TURNTABLE LADDER 50 MTRS TO 55 MTRS HEIGHT FOR FIRE FIGHTING AND RESCUE OPERATION WITH FIVE YEARS COMPREHENSIVE MAINTENANCE CONTRACT – 1 No.

1. **GENERAL REQUIREMENT:**

- e) 1.1 The Turntable Ladder shall be designed specifically for the purpose of fire fighting and rescue to enable firemen to go up and down. It shall comprise of ladder sections with a cage mounted at the end of top ladder section and the entire unit shall be mounted on a Turn-Table on a Heavy Duty Diesel - Engine chassis of VOLVO/MERCEDES BENZ, MAN make, 8X4 having approx. 5200 mm Wheel Base with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall be Right Hand Drive and shall comply BS III or BS IV (EURO III/ EURO IV) emission norms as in force in the indenting city
- 1.2 The Turntable Ladder shall be designed as per the designed, operational stability and structural strength based on the criteria laid in prEN14044/ **EN 14043 / EN 1777 AND EN 280 AND EN 280 AND EN 280 OR “JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK OR** an equivalent standards meeting the criteria's laid down in EN standards and other norms and standards applicable for elevated raised platforms used for Fire Fighting and rescue operations and the certificate to that effect issued by the competent agency shall be enclosed with the tender..
- 1.3 The TTL shall be capable of use at any angle of elevation without any reduction of load capacity of the cage. It shall also rotate 360 degree at any angle of elevation as well as below ground level subject to ladder remaining clear of vehicle body.
- 1.4 The appliance shall be compact and fast on the road and easily maneuverable in the crowded streets and around sharp corners. The overall dimensions shall not exceed the limits specified herein.
- 1.5 The height of the Turntable Ladder when fully extended shall not be less than 50 mtrs to the cage bottom from the ground.
- 1.6 The Turntable Ladder shall be micro processor based electro hydraulically controlled, permitting precise and easy operations under the most difficult conditions, with ample reserve strength and stability.
- 1.7 Full safety interlocks shall be incorporated in the design so as to ensure complete safety in operations and long years of reliable and trouble free service, as far as possible the system shall be fail proof.
- 1.8 The design of the TTL shall allow a very large safety margin for extreme

operating and climatic conditions. The safe working loads ratings shall include an allowance for the weight of water system and the reaction from the monitor jet while operation.

- 1.9 The Vehicle shall have a leveling system to adjust an angle not less than 7 degree and it shall be in automatic in nature with the manual override.
- 1.10 There shall be a full back up system for all ladder movements and outrigger movement in case of failure of main system. This shall be achieved with the help of Diesel driven hydraulic pump and manual pump.
- 1.11 The Complete Movement of the TTL shall be computer controlled and the system shall be checked for interference sensitivity according to standards.
- 20.2 The Control system of the TTL shall be fully tropicalised and able to operate in the temperature range up to + 60 degree centigrade and in a dusty and Humid condition without reducing the maximum operating limits.
- 20.3 The elevation of ladder shall be possible from -10 + 75 degree.

2. **CHASSIS:**

- 2.1 The Chassis shall be either VOLVO / MERCEDEZ BENZ/ MAN make, 8 x 4, having approx. 5200 mm Wheel Base (as per CMVR 1989) with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall be Right Hand Drive and shall comply BS III or BS IV (EURO III/ EURO IV) emission norms as in force in the indenting city
- 2.2 The Chassis shall be homologated from the appropriate authority in India in case not an approved model.
- 2.3 The engine shall be six cylinder, inline/'V' type, Diesel with direct injection, turbo charged with intercooler.
- 2.4 The engine shall develop minimum 300 HP (220 kW.)
- 2.5 The clutch shall be single plate, dry type, air assisted hydraulically operated (if required depending upon the type of transmission used)
- 2.6 The gearbox shall be **semi automatic or fully automatic** type with the arrangement of suitable capacity PTO required for driving the hydraulic pump for ladder movements.
- 2.7 Rear Axle shall be Tandem Bogie type with Hub reduction and differential lock between the wheels and axles.

- 2.8 Chassis frame shall be 'C' Channel section made of high strength steel with cross members.
- 2.9 The Steering shall be integral power steering with collapsible steering wheel and column.
- 2.10 The Front and the rear Suspension shall be leaf spring type.
- 2.11 The Brakes shall be dual circuit airbrakes, with parking brakes acting on rear wheels.
- 2.12 Fuel Tank - Capacity shall be min 300ltrs with lockable fuel cap.
- 2.13 The Chassis shall be provided with Radial Tyres - 13nos with spare tyres. Of suitable size as per GVW of vehicle.
- 2.14 The chassis shall be provided with single cab with RED colour, made from high strength steel fully trimmed, external panels hot dip galvanized with hydraulic cab tilting mechanism. The cab shall be provided with adequate ventilation, rear view mirrors, windscreen glasses and windows, adjustable driver seat, wiper system and along with all other standard fitments.
- 2.15 The Electrical system shall be 24V, with suitable capacity batteries & Alternator for charging the batteries.
- 2.16 The chassis shall be supplied with standard tool kit, hydraulic jack of 20ton capacity, operator & workshop manuals.
- 2.17 The Chassis shall be fitted with suitable capacity Power Take-Off Unit to drive the hydraulic pump for ladder movements.
- 2.18 The Chassis shall be directly procured by the tenderer confirming to above specifications and shall be got homologated with the appropriate authority in India. The Transportation responsibility of the chassis up to tenderers manufacturing facility lies with the tenderer. The Chassis shall be insured while in transit.
- 2.19 The Chassis should comply all the provisions and enactment of Motor Vehicle Act 1988 and Central Motor Vehicle Rules 1989 and any amendment from time to time.

3. **OPERATING REQUIREMENTS & DIMENSIONS OF FINISHED APPLIANCE:**

The Vehicle shall comply the following requirements

- 3.1 Max working Height :52 to 57 mtrs
- 3.2 Max. Height to working cage bottom : 50 to 53mtrs

- 3.3 Working outreach with 400kg cage load : 16 mtrs to 18 mtrs
- 3.4 Rotation - Continuous : 360 degree
- 3.5 Safe working load in the cage on hard level
Ground with dry monitor : 270 kg to 400 Kg Min
- 3.6 Safe working load with monitor in the cage
Delivery up to 2000 LPM : 275 Kg Minimum
- 3.7 Loading capacity of lifting eye under the
Cage (cage empty) : 270 kg. to 400 Kg Minimum
- 3.8 Operations at maximum outreach with
Full working load permitted in wind speed upto : 12.0 Mtr/ Sec.
The unit will be suitable for test at the load : 1.25 times dynamic & 1.5 times
static of SWL
- 3.9 Operating time at full stroke for all operations : As per applicable standards
- 3.10 Overall length in traveling position : 12.50 mtrs max
- 3.11 Overall width of the vehicle : 2.50 mtrs max
- 3.12 Overall Height in traveling position : 3.95 mtrs max
- 3.13 Maximum width of the vehicle when
Jacks are fully extended on both sides : 5.5 mtrs to 6.5 mtrs max Variable
- 3.14 Gross Vehicle Weight : 31 tons max.

- The cage shall be designed for not less than 400 to 270 Kgs. working load.
- Though the cage capacity prescribed in the specification is 270 Kg., if there is any variation in the said capacity , and if it is justifiable by any alternative / additional features those meet with the efficiency & performance , may be accepted as per the predefined evaluation process.
- Variation in the specifications/ requirements of plus – Minus 5% to 10% shall be accepted.

4. **CONSTRUCTION:**

The vehicle shall be robust in construction; materials used in construction shall be carefully selected for lightness and durability. Use of timber shall be restricted in bodywork and use of rubber shall be avoided as far as possible. Ferrous metal parts shall be treated for anti - corrosion by a method other than electro-plating.

5. **LADDER SET:**

- 5.1 The vehicle shall perform the following functions/ operations
- 5.1.1 Elevation
 - 5.1.2 Depression
 - 5.1.3 Extension & housing
 - 5.1.4 Rotation 360 degree in either direction
- 5.2 All the operations shall be electro-hydraulically operated with the help of hydraulic cylinders, wire ropes, chain etc. The system shall be purpose built to provide

smooth takeoff, variable speed range and smooth slowdown, based on the criteria laid down under EN 14043 or any other relevant standards applicable for these kind of vehicles.

- (e) There shall be Five/six ladder Sections, with telescopic movement made from high grade, corrosion resistant steel and shall have minimum wind catching area. The ladder sections shall be extended and retracted telescopically and simultaneously.
 - (f) Based on the selected outrigger position and cage load, the system selects automatically the maximum outreaches to all directions. The system capacity shall enable various outreach curves for each direction. The size of each sector shall automatically be defined based on position of outriggers. The outreach control system shall practically be infinitely variable.
- 5.5 The lower ladder section shall be bolted to turret. The ladder sections shall be welded construction; welding method shall be of latest technology to provide high durability and extreme accuracy. For high strength and minimum flexing of the ladder sections only high tensile strength steels shall be used.
- 5.6 The ladder elevation and lowering shall be controlled by two hydraulic cylinders that both have their separate safety devices and can alone carry the entire load in case of failure of any one of the cylinders.
1. All ladder sections shall move in a synchronized way and there shall not be any intermediate jerks during extension / retraction. Automatic slowdown mechanism at the beginning of the movement as well as end of the movement shall be provided to all ladder movements. All the moving sections shall be fitted with adjustable guides/ rollers to provide smooth and accurate movement. Various maintenance points shall be located well at hand either outside the ladder or behind easily removable covers.
 2. The extension and retraction cylinders or wire ropes shall be so laid; it should not cause any hindrance for climbing to a fireman. The ladder rungs shall be Anti Skid design and extension and retraction cables shall be provided with tension adjustment mechanism.
 3. The ladder shall be possible to elevate from – 10 to +75 degree minimum angle. The rotation movement shall be continuous through 360 degree at all angle of elevation except for the cabin protection area. In driving condition, the ladder set shall be placed on the ladder head rest.
 4. All the sliding sections shall have maintenance free Nylon/Steel rollers for sliding movements and means shall be provided for the lubrication of these rollers at an easily accessible position.

5. Hook On type additional ladder shall be provided for the access to main ladder assembly from the ground. A lifting eye shall be provided at the head of the main ladder section to lift the load.
6. An attachment system shall be provided at the top of ladder and in cage for fixing water monitor. The monitor attachment shall be quick connecting type without the use of bolts and nuts. The monitor can either be permanently mounted on ladder top or in the cage or can be kept at some other suitable place.
7. All main ladder movements shall be possible individually and simultaneously. While using simultaneous movements there shall not be reduction in the speed of ladder movements. The ladder leveling (plumbing) movement shall be automatic in nature with manual ON/OFF facility.
8. All the ladder movements except rotation, just before reaching the limit shall slowed down automatically until rest. In addition to this, the ladder lowering rate shall proportionally be decrease with increasing ladder length in order to avoid excessive swinging of ladder tip when ladder movement stops.
9. The functional, ergonomically designed main operating control consol shall be provided on the left hand side of turntable, with suitable operator seat. The following controls shall be provided on main control.

5.15.1 Lever/joy stick for rotation and elevation and depression.

5.15.2 Lever/Joy stick for extension and retraction.

5.15.3 Foot pedal for oil pressure ON/OFF (Dead Man type switch)

5.15.4 Button for engine Start/Stop.

5.15.5 Button for ladder leveling (Plumbing) ON/OFF.

5.15.6 Button for rungs in alignment.

5.15.7 Button for One man/Two man/Three man selection.

5.15.8 Button for lighting ON/OFF.

5.15.9 Button for emergency stop.

5.15.10 Volume control for main control stand speaker and speaker at ladder top.

5.15.11 Microphone for intercom system.

5.15.12 Lever for emergency operation ladder and jacks.

5.15.13 Graduated Arc with pendulum.

5.15.14 Button for automatic housing of ladder in the head rest.

5.15.15 Display screen. (LCD)

- 5.16 The ladder set shall be primed and painted for long life span, treated against rust and corrosion.

6. **HYDRAULIC CYLINDERS:**

- 6.1 The Hydraulic cylinders shall be double acting, fitted with lock valves so as to

prevent ladder set, working cage from lowering or the outriggers from retracting in case of pipe or hose failure.

- 6.2 The cylinders shall be provided with automatic dampers to prevent the pressure shocks and shall dampen the movement when a mechanical stop is reached.
 - 6.3 Retraction of the outriggers shall be automatically prevented as soon as the ladder set has been lifted up from their transport position by way of electrical OR Hydraulic interlock system.
 - 6.4 The ladder elevation and lowering has to be controlled by two hydraulic cylinders that both have their separate safety devices and both can alone carry the entire load in case of failure of any one of the cylinders.
 - 6.5 The piston rods of the outrigger cylinders shall be protected suitably in order to protect piston rod from damage caused by any external impacts.
 - 6.6 Lifting of the ladder set from the transport position shall be prevented before the outriggers are in support position and there shall be a limiting circuit to prevent damage to the Drivers cabin when the ladder is not clear of the cabin.
 - 6.7 All the movements shall be automatically limited in their extreme position and the working cage shall be prevented from working outside of the permitted working range in any position.
- (a) An emergency stop switch shall be provided on both control panels, which shall switch off the hydraulic pressure of all movements and shall stop the vehicle engine.

7. **TURN-TABLE:**

- 7.1 The turntable shall be fully integrated steel structure containing center post, slip rings, water line, etc duly fastened to the main frame by means of slewing ring.
- 7.2 The rotation for the turntable shall be controlled by hydraulic motor with brakes.
- 7.3 The base control station shall be attached to the turntable so as to rotate with it and be accessible in all positions of the turntable.
- 7.4 The hydraulic distributor (center post) shall be mounted in the center of the turntable at an accessible position and shall carry the hydraulic pressure and return lines, electrical supply lines & water line allowing continuous rotation in either direction.
- 7.5 The fasteners retaining turntable to the rotation mechanism shall be of proper grade and shall be torque properly.

- 7.6 The rotation gearbox fastener shall be of proper grade and torque with proper backlash.
- 7.7 There shall be provision for the manual rotation of turntable in case of failure of hydraulic system.
- 7.8 Pins securing the hydraulic cylinders shall be properly installed and secured.
- 7.9 The hydraulic hoses, tubing's and connections provided in the turntable shall be free from kinks, chaffing or leaks.

8. **STABILISING / JACKING SYSTEM:**

- 8.1 The Jacking system shall consist of hydraulically operated four outriggers mounted in their housings. Each housing shall be fitted with adjustable guides to provide smooth and accurate movement of the outrigger beam. The outrigger piston rods shall be completely protected by closed steel profile.
- 8.2 The Jacks shall be H-type or Inclined configuration, each side shall have two separate hydraulic cylinders, the first of which pushes the horizontal outrigger beam out and the second shall push the vertical/inclined Jack down.
- 8.3 The jack shall be provided with ground pressure sensors, which shall be correctly actuated before the ladder set is operated to ensure proper stabilization.
- 8.4 Each Vertical/inclined jack shall be provided with self-aligning footplate to spread the load evenly and allow the operation on uneven ground.
- 8.5 The system shall be able to level the vehicle up to 7 degree sideways and with automatic leveling system.
- 14.7 The jacking system shall be controlled by two separate control panels provided on left and right side of the vehicle at rear with following controls.
 - 8.6.1 Left side front and rear outrigger beam out.
 - 8.6.2 Right side front and rear outrigger beam out.
 - 8.6.3 Left side jacks down
 - 8.6.4 Right side jacks down.
 - 8.6.5 Automatic axle locking mechanism.
 - 8.6.6 Display Screen(LCD)
 - 8.6.7 Cage folding in isolation switch.
 - 8.6.8 Vehicle leveling gauge
- 8.7 All the jack movements shall be infinitely variable within the full jacking width.

- 8.8 The Jacking systems shall allow operating each jack individually and the jack projection shall be recognized by the controlling system and the maximum outreach shall automatically be calculated as per the jack width.
- 8.9 The jacks shall be controlled individually or in pair with lever /joystick and the control panel shall be situated in such a position that, the operator will have clear look to the right and left hand side while extending the jacks. The control panel shall be located at the rear side of the vehicle.
- 8.10 Yellow Flashing warning lights shall be provided at the outer most point of the jacks to identify the position of the jacks during night operation.
- 8.11 Four wooden spreader plates shall be provided for the use, when the vehicle is to be operated on soft ground.
- 8.12 The Vehicle shall be provided with inclinometer preferably digital along with conventional Spirit level gauge which will measure both fore, aft and Side ways inclination of the vehicle up to minimum 7 degree.
- 8.13 The stabilizing system shall also preferably incorporate axle-locking mechanism.
- 8.14 The locker containing outrigger controls shall be fitted with an automatically operating door switch and a light for night operation.

9 **ELECTRONIC SAFETY AND OUTREACH SYSTEM:**

- 9.1 The computer-controlled system shall allow the outriggers to be positioned and the system shall be capable to select automatically the maximum allowed outreach to front, rear, right and left side. Based on calculations and parameters saved in the system to guarantee exactly the same outreach regardless of the external influences like wind speed and direction, temperature, friction of the cylinders, etc.
- 9.2 The display units of the system shall show maximum possible outreach and position of the working cage in real-time along with other details.
- 9.3 The electronic system shall be approved according to the valid standards and directives. The system shall be EMC tested (EU directive 89/336/EEC) and CE type tested by TUV or any other appropriate agency.

10. **CAGE:**

- 10.1 The working cage shall be attached to the tip of top section and it shall be foldable. There shall be sufficient space for three persons and safe working load shall not be less than 400 kgs. excluding the equipment permanently mounted in the cage. The leveling of the cage shall be controlled automatically by an

electro/hydraulically mechanism with manual override in case of emergency. The controls for folding over and in working position shall be integrated into the control panel for the jacking system. The entrance to the cage shall be provided from the front and rear.

- 10.2 The cage shall be made of tubular steel/Aluminum profile, welded together and painted with special paint with high durability in case of steel cage. The dimensions of the working cage shall be such that it shall provide sufficient space for three men. The top railing shall be part of the cage door so that entering into the cage without bending is possible.
- (a) The cage shall be designed for 400 Kgs working load and shall be tested for min. 1.5 times overload capacity.
- 10.4 The cage shall be quick removable type whenever needed.
- 10.5 An emergency cage leveling operation shall be provided in case of failure of electricity by means of Hand/Foot pump.
- 21.1 The cage control shall allow all ladder movement to be performed infinitely variable. During cage operation, the movement shall be automatically controlled by the safety system. When the ladder is operated from the cage, the speed of movements shall be the same as ladder control from main control consol.
- 21.2 The location of cage control shall be such that the operator shall have clear look on all side when operating the ladder from the cage. The Joy stick/Levers in the cage shall be identical that of the main console. The cage control panel shall always be visible and accessible, even main the additional equipment is used by the fireman.
- 21.3 The cage control shall have following controls on the control panel.
 - 21.3.1 Lever/joy stick for rotation and elevation and depression.
 - 21.3.2 Lever/Joy stick for extension and retraction.
 - 21.3.3 Foot pedal for oil pressure ON/OFF (Dead Man type switch)
 - 21.3.4 Button for engine Start/Stop.
 - 21.3.5 Button for rungs in alignment.
 - 21.3.6 Button for One man/Two man/Three man selection.
 - 21.3.7 Button for lighting ON/OFF.
 - 21.3.8 Button for emergency stop.
 - 10.8.10. Button for automatic housing of ladder.
 - 10.8.11 microphone-cum-speaker for intercom system.
 - 10.8.12 Colour Display screen.(LCD)
 - 10.8.13 Button for cage light ON/OFF.
- 21.4 Two wide angle flood (strobe) light shall be provided in front of the cage for illumination for night operation.

21.5 The cage shall be provided with collision safety device to protect the cage against damage due to impacts while in operation. All ladder movements shall be stop automatically when the cage collusion system is activated.

11 **HYDRAULIC SYSTEM:**

11.1 The Hydraulic power shall be provided by a reliable and adequate capacity variable displacement axial piston pump, which shall be driven by the vehicle power take off.

11.2 When no operation of the ladder is activated, the pump shall rotate on minimum flow and minimum pressure. When the control lever or oil pressure foot paddle is pressed, the engine should automatically go to pre set limit and also activate the necessary hydraulic oil supply to all the circuits.

11.3 There shall be a provision of instant couplings for attachment of manometer in each pressure line for checking pressure of each circuit.

11.4 The suitable filtration system of the hydraulic oil shall be provided on the vehicle to insure a good quality of oil entering into the system.

11.5 All hydraulic cylinders shall be double acting with hard chrome plated piston rods and shall be fastened by means of preferably self-aligning ball bearings to prevent lateral forces from damaging the seals or piston rods of the cylinders.

11.6 Hydraulic oil tank shall be provided into the turn table of suitably capacity. There shall be a proper heat dissipation system. The tank shall be fitted with oil level gauge, and suction connections with closing valves for easy maintenance and draining outlet with closing valve.

12. **BACK-UP FOR THE HYDRAULIC SYSTEM:**

12.1 The hydraulic power for all necessary ladder movements shall provide manually via a separate hydraulic hand pump. The hydraulic pump shall be provided at suitably place safe and easy operation.

12.2 There shall be a separate single cylinder diesel engine (silent pack) mounted at suitable place, preferably in one of the lockers driving the hydraulic pump, which will provide independent means of hydraulic power in case of failure of main engine of vehicle. The Diesel engine shall have sufficient power to drive all the movements of the ladder but at a reduced speed. The Engine shall be able to start from all control panels.

12.3 In case of failure of main control panel system, emergency operation of all ladder movements shall be possible. All the ladder movements shall be safely controlled

with hydraulic system from the main control consol.

13 **CONTROLS AND SAFETY:**

13.1 The Electrical supply needed for control system shall be taken from the vehicle battery which shall be charged when the engine is running.

13.2 When the vehicle is in operation yellow flashing warning lights mounted on the outriggers shall automatically remain on.

13.3 The engine starting and stopping switch shall be provided on all control panels and the engine speed shall be increased to the preset level as soon as the foot paddle is pressed.

(II) All boom and rotation movements shall be controlled electro-hydraulically by means of proportional valves. The proportional valve shall not be sensitive to changes of ambient or oil temperature, and shall provide smooth, safe and very accurate movements even in most severe operating conditions.

(iii) The speed of the ladder for lowering and extension shall be automatically reduced at maximum outreach. The ladder lifting speed shall be reduced before the maximum elevation.

13.6 All control movements can be performed by the control system from both control panels and the outreach can be selected by the positioning the outriggers. The variable system shall consist of two displays, the graphical display and real time information about the outreach and the cage position and also to show possible movements according to cage position by animated arrows. In the text display there shall be main texts for:

13.6.1 Warnings

13.6.3 Emergency situations

13.6.3 Help manual

13.6.4 Fault finding system

- There shall be control light for the axle locking system which will be mounted on the dash board. The signal will remain on when the power take off is switched off but the axle locked is not disengaged, and / or the cage is still in operation. Preferably with warning buzzer.
- There shall be two independent drive elements to secured the ladder set of which each is capable of keeping the ladder in its present position during the ladder movements.
- There shall be an inter lock, only permits the ladder sets to be lifted from the head rest and thereafter other movements are possible.
- There shall be a load measuring system for stability and security of the ladder parts. The ladder movements shall stop automatically due to

projection and / or additional load such as rescue persons, in conjunction with the jacking widths and the actual remaining loads.

- An operating range display shall continuously show the total working range and the present load situation. The position of the ladder and the load limit in conjunction with the jacking widths shall display simultaneously.
- For the stability of the ladder, the speed of all the movements shall slow down smoothly and automatically before reaching the final position and automatically stop all movements in the defined final position.
- For the tactical requirement during the emergency operation, there shall be a system which allows the ladder to reach the operational limit beyond the free standing limit, when the ladder head is supported against the wall.
- When the ladder reaches to its operational limits. There shall be automatic final stopping of all ladder movements except for retraction and rotation.
- There shall be a driver's cabin protection mechanism which will stop respective ladder movement to avoid collision of ladder with cabin.
- There shall be an impact cut out which will stop all ladder movements.
- An automatic hydraulically operated and electronically control leveling system (plumbing) shall be active all elevation and inclination angles. It shall guarantee that, the rounds are always horizontal up to angle of 7⁰. The plumbing mechanism can be switch off / on from the main control console.

➤ **OPEARTING RANGE DISPLAY:**

- An operating range display shall be provided at main control console, and cage control console, which shall provide information to the operator. The various signals coming from the sensors, computer shall be processed and visually represented in the form of text or symbol on the display.
- A scale down representation of the actual available range of operation shall be displayed showing exactly the ladder position, projection, ladder length, height and angle of elevation.
- A microprocessor shall control and monitor all ladder movements and safety system. If the safe operating limit is reached, the ladder movement shall be blocked automatically and a corresponding message / indicator shall be shown on display screen.
- The display shall show text message of operational faults including its

consequences.

- The operating range display shall be illuminated suitably for easy reading during the night operation.

➤ **CONTROLS AND INDICATORS IN DRIVERS CAB:**

- 15.1 The following control and indicators shall be provided in drivers cabin.
- 15.1.1 Visual warning for any of the equipment lockers being open
 - 15.1.2 Visual warning for the ladder set not being fully in transportation position
 - 15.1.3 Switch with visual indication for rotating beacons
 - 15.1.4 Switch with visual indication for siren unit
 - 15.1.5 Microphone for the public address system

16 **BODY WORK AND EQUIPMENT LOCKERS:**

- 16.1 The structure for the bodywork shall be made up of various Aluminium profiles properly fixed together by riveting, bolting or welding.
- (iv) The complete external paneling of the rear body shall be made from Aluminium sheet fitted to the structural member either by gluing or riveting.
 - (v) The complete flooring of the rear deck shall be made from non skid aluminum chequered plate of 3 mm thick properly riveted or bolted to the superstructure members.
 - (vi) For the easy access to the rear deck from ground level, there shall be sufficient numbers of recessed steps on both sides of the vehicle provided with suitable grab handles.
 - (vii) Sufficient numbers of lockers shall be provided on both side of the vehicle for keeping various accessories and equipments. The locker shall be so made that load distribution on both sides is equal. All the lockers shall be provided with rolling shutters properly sealed for water and dust ingress. All the doors of the lockers shall be fitted with automatic switches activating the light as soon as the door is opened and also activating the warning light in Drivers cab.
 - (viii) There shall be a bench type crew seat suitable for 4 firemen fitted on the rear deck just behind the driver's cabin. This seat shall be properly upholstered and shall be provided with safety belts.

(j) **THE WATER MONITOR:**

- (iii) The manually operated monitor attached to the ladder head or in the rescue cage and shall be provided with standard 63 mm. BIS male coupling.

- (iv) The out put of the monitor shall not be less than 2000 LPM at 10 bar and throw range shall be approx 40 mtrs.
- (v) The monitor can be moved vertically upward and downward up to -15° to $+60^{\circ}$. The horizontal movement up to 30° left side and right side.
- (vi) The monitor shall be fed with water through nylon delivery hose of 63 mm internal dia. meter of 60mtrs. in length with suitable male and female couplings.

18. INTER COMMUNICATION SYSTEM:

- There shall be fully transistorized talk back inter communication system fitted between turntable and the cage.
- The system shall be combined microphone and loudspeaker for hands free operation and shall be located in the cage. The turntable control station is also equipped with microphone, which shall be integrated in the loudspeaker with volume control.
- The microphone and the loudspeaker shall be sealed properly and it shall be protected from the ingress of water, dust and humidity.

2. ELECTRIC SYSTEM:

- The electrical supply shall be taken from the vehicle batteries, which are kept charged when the engine is running. Voltage of the system shall be 24 V DC and all circuits shall be provided with specific fuses depending on the current consumption of that circuit.
- When the P.T.O. is switched on, yellow flashing warning lights located at each outrigger and ladder set pivoting point shall automatically be switched on.
- 2x 24 volts, 70 watts, spotlights (Strobe) with swivel mounting bracket shall be fitted at the cage railing in the front side to provide extra safety during night operation. The switch for these lights shall either be provided on the light itself or on both the control panels.
- Two rotating beacon lights shall be provided on each side of the drivers cab roof with Amber colour lens. The switch for switching the beacons on and off with suitable signal light shall be integrated in the control panel of siren cum public address system. The beacon light shall be either Bosch or Hella make.

3. SIREN AND PUBLIC ADDRESS SYSTEM:

- There shall be an electric siren unit fitted on the roof of the vehicle cabin or at a

suitable place with the control unit mounted conveniently inside the driver cabin. It shall have the fast (yelp) and slow (wail) sound modes with integrated switch for rotating beacon lights.

- Command microphone, which is fitted with push-to-talk switch, allows the public address message to override the siren function. Operations are controlled by non glare-illuminated push buttons of different colors on control panel shall be provided.

4. **FAULT FINDING SYSTEM:**

- The control system of the vehicle shall have self-fault finding system. If any fault occurs during the operation, the system shall find out the same and shall show the location of the defective component on the display. The system shall incorporate simple test screens to enable testing of the working cage and the turntable control panels. The tests shall also cover display unit, push buttons, joysticks.
- For maintenance purposes the following tools shall be provided as standard supply:
 - Fault finding system and fault register
 - Status screens for sensors, switches, hydraulic valves, control lamps, etc.
 - Total operation and hour meter
 - Service laptop with compatible software relevant to the system.

PAINTING:

- Before painting all surfaces of steel structures shall be carefully shot blasted after which they shall be primed and then applied the coat of approved paint. All the ladder set shall also be painted from all the sides.
- For very high corrosion resistance of hollow structures such as steel profiles of the working cage, ladder set, outrigger beams and housings shall be treated with anti-corrosion protection preferably with "TECTYL".
- **The following Paint shades shall be used:-**

Working cage & wheel rims	:	White aluminium RAL 9006
Ladder support, Turntable and related Cylinders	:	Red RAL 3000
Body work including cabin	:	Red RAL 3000
Chassis frame touch-ups	:	Chassis original tone

The word " _____ FIRE SERVICE " shall be painted on both side of the vehicle at suitable place as per the instructions of the Purchasers Chief Fire Officer.

The emblem of MAHARASHTRA FIRE SERVICE shall be painted on both side of

the vehicle in Natural colour as per the instructions of Director, MFS

ACCESSORIES:

- Wooden outrigger ground pads/ plates with brackets - 4 Nos
- Working range diagrams, at turntable & in the cage - 2 Nos
- Marking of safe working load in the cage - 1 No
- Unit type marked on the ladder. - 2 Nos
- Warning labels and instruction plates - 1 set
- Operation and maintenance manuals for TTL and Chassis. - 2 sets
- Plug for 24 V working light at the turntable and in the working cage - 1 No
- Lifting hook under the working cage, capacity 270 kg - 1 No
- Hydraulic pressure gauge - 2 No
- Service laptop with all accessories compatible to system - 1 No
- Set of tools & accessories required for the repairs & maintenance of TTL, chassis, & other systems - 1set

INSTRUCTION MANUALS:

Two sets of complete instruction manual for the operation and maintenance of Turntable Ladder unit (including all systems), stand by systems, chassis and itemized spare parts list shall be supplied alongwith electrical circuit diagrams, hydraulic circuit diagrams.

All the manuals, circuit diagrams, literature etc shall be in English language.

DRAWINGS:

The complete detailed drawings of Turntable Ladder duly mounted on chassis specified herein shall be submitted alongwith the tender.

The working range diagram alongwith all the details shall also be submitted alongwith the tender.

STABILITY:

The stability of the vehicle (in traveling position) when fully equipped and loaded (excluding crew member), with ladder resting on the resting stand and without extending the stabilizing jacks shall be such that it shall remain stable and shall not overturn even if the surface on which the vehicle stands has inclination on either side from the horizontal as per the standards stipulated under prEN 14043. The tenderer shall specifically mention the angle of overturning in their offer. The manufacturer to that effect shall furnish a certificate at the time of supply.

TRAINING:

- The contractor should arrange the complete Training at Manufacturers OEM at site prior to delivery of vehicle, all the expenses should be borne by the supplier/ contractor
- The manufacturer's service engineer shall undertake the training for a week in the operation and maintenance of the Turntable Ladder for the operational staff (30 personnel) of the Purchasers Fire Brigade at Maharashtra , Fire Brigades Headquarters, Maharashtra, (INDIA) for atleast 2 man days each. Cost on this account shall be included in the offer.
- The training regarding the repairs, maintenance, of the chassis and Turntable Ladder including all systems shall be imparted to the engineer of the Fire Brigade department for a period of one week at the factory premises of the equipment manufacturer. The successful tenderer shall supply free of cost all the tools and accessories required for the training. The cost on account to & fro travel, accommodation for one week shall be included in the basic cost of vehicle.

28. WARRANTY:

- 28.1 The manufacturer/ supplier shall furnish a warranty for the complete unit including chassis for a period of 36 months from the date of acceptance of the vehicle at the Fire Brigade Headquarters, Maharashtra (India) in perfect working condition.
- 28.2 The manufacturer shall also guarantee for the supply of spare parts & service for chassis and Turntable Ladder including all systems for a minimum period of 10 years from the date of supply of the vehicle.

R. T. O. REQUIREMENTS:

The vehicle shall be equipped with all the accessories required for registration of the vehicle and shall conform to Motor Vehicle Act 1988 and Central Motor Vehicle Rules, 1989 or any amendment incorporated from time to time.

DEVIATION:

Any deviation / departure from the above specification shall be pointed out separately with detailed explanation.

GENERAL:

Any additional information or clarification required can be given on application to the DIRECTOR, Maharashtra Fire Service , Mumbai, Maharashtra (India)

INSPECTION:

The DIRECTOR and the engineer of the fire brigade department or their authorized representative will carry out the inspection and the testing of the fully built vehicle at the factory premises of the vehicle manufacturer prior to dispatch. The traveling and accommodation cost shall be included in the basic cost of the vehicle.

It is obligatory to the supplier to provide all the assistance and equipment for the inspection and testing of the vehicle at their premises.

COMPREHENSIVE SERVICE MAINTENANCE CONTRACT:

- The Contractor shall offer the vehicle with five years COMPREHENSIVE SERVICE MAINTENANCE CONTRACT which includes the cost of repairing of vehicle at periodic intervals or at the time of breakdown of vehicle including the supply of original spare parts.
- The COMPREHENSIVE SERVICE MAINTENANCE CONTRACT shall be for superstructure as well as for the chassis.
- The servicing of the superstructure and the chassis shall be carried out strictly as per the manufactures recommendations at periodic intervals.
- During the contract the vehicle shall be checked periodically at the interval of every three months and all the test and checks shall be carried out as per manufacturers recommendations.
- The spare parts used at the time of periodical servicing shall be original and brand new.
- Any break down of the vehicle shall be attended within 72 hrs. from the time of intimation of break down (telephonic / written) to the contractor.
- The servicing and repairing of vehicle including chassis shall be carried out through skilled workers as certified by the manufacturer.
- All the tools, consumables etc. required for the servicing of the vehicle shall be arranged by the contractor.
- The servicing and repairing of the vehicle shall be carried out either at the fire station or at the fire service workshop or at the authorised workshop of vehicle manufacturer.
- The complete servicing of the vehicle shall be carried out well in advance as per the provisions of Motor Vehicle Act and Central Motor Vehicle Rules when the vehicle is due for renewal of mechanical fitness certificate.
- Any break down of vehicle on emergency call or on road shall be attended immediately.
- The complete servicing and repairing of vehicle shall be carried out under the supervision of technical officer of fire brigade department and all the instructions (oral or written) given by him time to time shall be incorporated / attended.
- Any damage to the vehicle due to in proper handling or due to accident shall be attended promptly and the cost on account of such repairs including the cost of spare parts shall be got approved from DIRECTOR prior to such repairs.
- Any dispute arise out of this contract, Municipal DIRECTOR will be the final authority and the decision given by him shall be binding to both the parties.
- The tenderer shall give the details of work to be carried out at periodic interval of three months along with the offer.

- The contractor shall maintain the log book of the vehicle and shall enter all the details of repairs /service of the vehicle carried out time to time and same shall be got certified either from Officer in charge of the fire station or from workshop in charge.

DIRECTOR
MAHARASHTRA FIRE SERVICE

BID FORM

To
The DIRECTOR
MFS, Maharashtra,
(INDIA)

Sir,

1. I/We have read and examined the following documents relating to the supply, delivery mounting, body building and maintenance of vehicles and equipments and ancillary items for the Maharashtra Fire Services

- (a) Notice inviting bid
- (b) Instructions to Bidders
- (c) General Conditions of Contract
- (d) Specifications
- (e) Appendices and Schedules
- (f) Schedule of Prices.

2. I/we hereby tender for the supply, delivery, mounting, body building and maintenance of the Plant referred to and specified in the aforesaid documents, upon the terms and conditions contained or referred to therein and in accordance with and in all respects with the specifications, designs and other relevant details at the rates entered in the aforesaid Schedule of Prices.

3. According to your requirements I/we attach here a 'Bid Security' in the form of banker's Guarantee for an amount of from.....

.....

.....

(Name of the Bank)

4. I/We here by request you to enter into a contract with any other person/s for

the execution of the works until notice of non-acceptance of this bid has first been communicated to me/us and in consideration of your agreeing to refrain from so doing I/We agree not to withdraw the offer constituted by this bid before the date of communication to me/us of such notice of non-acceptance, which shall not later than ten days from the date of the decision of the MFS as may be required under the MFS Act, not to accept this bid.

5. I/We also agree to keep this bid open for acceptance for a period of 180 days from the date fixed for opening the same and not to make any modifications in its terms and conditions which are not acceptable to the Corporation.
6. I/We agree that the DIRECTOR shall, without prejudice to any other right or remedy, be at liberty to encash the said banker's guarantee and it will stand forfeited absolutely, if-
 - (a) I/We fail to keep the bid open as aforesaid.
 - (b) I/We fail to execute the formal Contract or submit the Performance Bank Guarantee within the stipulate period.
 - (c) I/We do not commence the supply and/or work on or before the due date.
7. I/We hereby further agree to pay all the charges of whatsoever nature in connection with
the preparation, stamping and execution of the said Contract.
8. Until a formal contract is prepared and executed, this tender offer, together with your written acceptance thereof and your notification of award shall constitute a binding contract between us on terms and conditions as mentioned under the Tender Document.

9. We understand that you are not bound to accept the lowest or any offer you may receive.

Yours faithfully,

Address :

Signature of the Firm

Names and Private residential
address of the partners /

1)

Directors Constituting the firms

2) _____

3) _____

4) _____

5) _____

SCHEDULES FOR SUPPLY AND DELIVERY OF

TURN TABLE LADDERS FOR ____ MTRS. To _____ METRES HEIGHT.

1. Schedules of Manufacture's Information

- (1) Year of Incorporation
- (2) Number of similar units Manufactured so far
- (3) Manufacturing capacity per year
- (4) Details of after sales service in Mumbai Mumbai or a place in India.
- (5) Details of Plant / Equipments / Staff
- (6) Certificates from users
- (7) Particulars of Agent / Representative in India.
- (8) List of current jobs of comparable nature.
- (9) The extent of responsibilities carried by Indian or Foreign contractors associated with the bidder.
- (10) Evidence of financial capacity to execute a contract of this magnitude.

Signature of Bidder

2. SCHEDULES OF TECHNICAL PARTICULARS

(Please attached separate sheets for different Heights as mentioned in this Tender Documents)

TURN TABLE LADDER OF ____ MTRS. TO ____ MTRS. HEIGHT

1.	GENERAL DESCRIPTION	
(a)	Make and Model	
(b)	Height (meters)	
(c)	Outreach (meters)	
(d)	Operating media	
(e)	Safety	
(f)	Gross Vehicle weight	
2.	Chassis	
18	Make	
19	Model	
20	Wheel base	
21	Engine type	
22	Rated HP	
23	Type of clutch	
24	Type of gear box	
25	Type of front axle	
26	Type of rear axle	
27	Type steering system	
28	Type of braking system	
29	Fuel tank capacity	
30	Size of tyres	
31	Type of cabin	
32	Type of electrical system	
33	Type of PTO	
3.	Constructional details	
A	Driver Cabin	
17.	Paneling (material)	
18.	Doors, (Nos)	
19.	Windows (Nos)	
20.	Seats (Drivers, attendant, and crew)	
21.	Capacity.	
B	Rear Body	

(i)	Details of Horizontal, vertical, cross members	
(j)	Paneling, sides, deck floor (material, size, thickness)	
(k)	Details of lockers (nos, size, material)	
(l)	Overall length in MM	
(m)	Overall width in MM	
(n)	Overall Height in MM	
(o)	Details of Aluminium shutters (size, Nos)	
4.	OPERATING REQUIREMENTS	
3	Safe working loading in cage (Kg)	
4	Safe working load with Monitor in cage (Kg)	
5	Lifting capacity of the under cage (Kg)	
6	Testing suitability at (Kg)	
7	Permitted wind speed at the maximum outreach with full working load in the cage	
8	Operating time of full stroke (second)	
	(a) Elevating ladder	
	(b) Extending ladder	
	(c) Reaching max height from ground level	
	(d) For 360 deg rotation	
	(e) For extending jack one side	
	(f) For extending jack for both side	
	(g) For extending all four jacks, elevating, cage to max height and rotation through 360 degree	
5.	DIMENSION OF THE FINISHED APPLIANCE	
A	In Operating Position	
13	Max height to working cage bottom (Mtrs)	
14	Max working height (Mtrs)	
15	Max working outreach (Mtrs)	
16	Max outreach to cage corner with max safe working load (Mtrs)	
17	Max outreach below the ground level working cage bottom with max safe working load (Mtrs)	
18	Safe working Load (Kg)	
19	Rotation continuous (degree)	
20	Leveling capacity (Fore and aft/ sideways)	
B	In Transport Position	
(a)	Transport height approx (Mtrs)	
(b)	Transport length approx (Mtrs)	

(c)	Transport width approx (Mtrs)	
6.	CONSTRUCTION	
8	Material used	
9	Use of timber	
10	Use of rubber	
11	Treatment of material	
12	Painting procedure	
7.	LADDER SECTIONS	
(a)	Nos	
(b)	Telescopic sections (nos)	
(c)	Ladder length (Mtrs)	
(d)	Movement	
(e)	Location	
(f)	Design	
(g)	Treatment	
(h)	Welding process	
8.	HYDRAULIC CYLINDERS	
17	Lock valves	
18	Hydraulic Dampers	
19	Reduction in speed of booms/ Ladder	
20	Automatic prevention of retracting of outriggers	
21	Lifting of Boom/ Ladder prevention unless outriggers are in position	
22	Limiting circuit to prevent cab damage	
23	Emergency stop switches	
9.	CONTROL SYSTEM FOR BOOM AND ROTATION MOVEMENT	
2	Type of control valves	
3	Make	
4	Model	
10.	TURNTABLE	
32	Construction type	
33	Fastening (slewing ring)	
34	Swivel – in – line	
35	Rotation (degree)	
36	Movement control	
37	Gear unit fastening	
38	Location	
11.	MAIN FRAME	

(a)	Frame type	
(b)	Fastening	
(c)	Construction material	
(d)	Non slip aluminum tread plates	
(e)	Steps on both sides	
(f)	Hydraulic powered outrigger, nos, & type of operation	
(g)	Location	
12.	CAGE	
(a)	Material	
(b)	Outer dimensions (MM)	
	(i) Length	
	(ii) Width	
	(iii) Height	
(c)	Doors, nos, & size in (MM)	
(d)	Max Load (Kg)	
(e)	Fitment to control panel	
(f)	Provision for digital anemometer	
(g)	Leveling device	
(h)	Safety railing provision, height (MM)	
13.	STABILISING JACKS: OUTRIGGER	
16	System	
17	Controls and Operation	
18	Nos and Location	
19	Individual controls	
20	Level indicators	
21	Self alignment foot plates for outrigger	
22	Operation on uneven ground	
23	One side jacking provision	
14.	CONTROL AND SAFETY	
(a)	Electric control taken from vehicle battery	
(b)	Voltage	
(c)	All control panels to have engine start/ stop button	
(d)	Signal lamps	
15.	DETAILS OF SAFETY DEVICES	
3	Ladder and Outrigger cylinder lock valve make & type	
4	Isolating system boom/ ladder/ outrigger operation	

5	Movement limiting system	
6	Cab protection	
7	Overload alarm	
8	Emergency stop system	
9	Dead man switch	
10	Bleed down system	
16.	HYDRAULIC SYSTEM	
(j)	Hydraulic power, make & model of pump	
(k)	Pump capacity Ltrs/min and pressure (Kg/cm ²)	
(l)	Pump operation	
(m)	Control valve function	
(n)	Oil flow to increase (automatically)	
(o)	Prevention of overloading	
(p)	Instant couplings for manometer	
(q)	Manometer	
(r)	Filtration of oil	
(s)	Filters	
(t)	Hydraulic cylinder type	
(u)	Plating of piston rod	
(v)	Hydraulic cylinder type	
(w)	Fastening	
(x)	Capacity of hydraulic oil type	
17.	BACKUP FOR HYDRAULIC SYSTEM	
29	Type	
30	Location	
31	Operating mode	
18.	CONTROL FOR STABILISING JACKS	
(g)	Location of control panels	
(h)	Change over switch	
(i)	Control levers	
(j)	Emergency lowering valves	
(k)	One side jacking facility	
19.	WATER PIPING SYSTEM	
(a)	Material of piping	
(b)	Diameter of pipe (MM)	
(c)	Water monitor location	
(d)	Piping fitment	

(e)	Protection against over pressure by relief valve	
(f)	Telescopic water pipe	
(g)	Finish & plating	
(h)	Seals	
(i)	Flexible hose	
(j)	Monitor isolating valve	
(k)	Additional outlet with valve and coupling	
(l)	Nozzle and system (water curtain)	
(m)	Control valve location	
(n)	Water monitor	
(o)	Location	
20.	ELECTRICAL EQUIPMENT	
(a)	Slip rings	
(b)	Rating	
(c)	Spotlight	
(d)	Red rear lamps nos	
(e)	Red/ Orange lamp at boom/ ladder knuckle	
(f)	Illumination of:	
	(i) All control panels	
	(ii) Instruction plates	
	(iii) Leveling indicators	
(g)	Recharging	
(h)	Separate fuses	
(i)	Wiring diagram	
21.	INSTRUCTION PLATE: DETAILS	
22.	LADDER:	
(a)	No of telescopic section	
(b)	Location	
(c)	Min. width at top (MM)	
(d)	Railing height (MM)	
(e)	Folding bridge	
(f)	Material	
(g)	Treatment	
(h)	Controlling system	
23.	INTER COMMUNICATION SYSTEM	
(b)	Type	
(c)	Make	

(d)	Model	
(e)	Operating voltage	
(f)	Location	
24.	ELECTRIC POWER LINE :	
25.	GRAPHICAL DISPLAY MONITOR : (Details)	
26	FAULT FINDING SYSTEM (Details)	
27.	EMERGENCY SYSTEM	
4	Make & Model of Engine & pump set	
5	Capacity of pump (Ltrs/Min)	
6	Make & Model of electric motor operating voltage	
7	Make & Model of pump set with capacity (Ltrs/Min)	
8	Bleed down system	
28.	LUBRICATION	
29.	BODY WORK	
(a)	Steps and grab rail	
(b)	Construction	
(c)	Material	
(d)	Siren with two tone hooter + Public Address system	
(e)	Orange beacon lamp	
30.	FINISH	
(c)	Painting	
(d)	Visibility	
31.	TOOL KIT DETAILS SEPARATELY	
32.	STABILITY	
33.	TESTING FACILITIES	

3 DELIVERY SCHEDULE

(Please attached separate sheets for different Heights as mentioned in this Tender Document)

Bidder shall not the requirements of clause 26.5 (b) of instructions to Bidders. Clause 6 of the Special Conditions of Contract and shall enter their guaranteed delivery periods below. All periods shall be quoted in weeks from the date of notification of contract by letter from the Corporation.

Description	Longest permissible Delivery period For supply of vehicle	Bidders
Turn Table Ladder (TTL) of __ MTRS to __ MTRS	Delivery Period 36 weeks	

Signature of Bidder

3. Schedule of Guarantee/Warranty (Ref Clause No. 15 of the General Condition of the Contract)

(Please attached separate sheets for different Heights as mentioned in this Tender Document)

I/We guarantee that the Turn Table Ladder of _____ Mtrs. to _____ Mtrs. will be reliable in operation and I/We undertake to replace, or adjust free of charge to the Maharashtra Fire Services any part of the plant supplied under the contract which fails to comply with guarantees or requirements entered in schedules of particulars and specification until the completion of the Maintenance period.

I/We warranty that the goods supplied under the Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials.

I/We guarantee that the Plants is of a type which has been proved in service to be suitable for the duly required by the specification and will have been manufactured and tested in accordance with the specifications.

Guaranteed

- (i) Unladen weight (kg.)
Chassis with equipment)
- (ii) G. V. W. (kg.)

Signature :

In the capacity of :

Witness :

Occupation :

Address :

Date :

Signature of Bidder

5. Schedule of Spare Parts

(Please attached separate sheets for different Heights as mentioned in this Tender Document)

Bidders shall enter below the list of spare parts necessary for the maintenance of Turn Table Ladder of ____ to ____ meter for a period of Two years. The spare parts shall conform to the clause 1.12 of Specification General. The total cost of this item shall not be carried forward to the Schedule of Prices.

Sr.	Part	Description	Quantity	Unit	Rate	Amount
-----	------	-------------	----------	------	------	--------

Total :

Signature of Bidder

6. Schedule of Tools

(Please attached separate sheets for different Heights as mentioned in this Tender Document)

Bidders shall enter below a list of the tools which they advice Corporation of purchase. The tools offered shall conform with their requirement of Clause 1.13 of the Specifications General. The tools cost of this items shall be carried forward to the Schedule of prices.

Sr. No.	Item No.	Description	Quantity	Unit	Rate	Amount
---------	----------	-------------	----------	------	------	--------

Carried to Schedule of Prices -

TOTAL FOR TOOLS

Signature of Bidder

7. DEVIATION FROM THE SPECIFICATION

(Please attached separate sheets for different Heights as mentioned in this Tender Document)

Tender shall state briefly any deviations from the Specification contained in their main offer. If the deviations are discussed in a covering letter then reference to the covering letter shall be made below :

Item or Clause	Deviation	Covering letter page
----------------	-----------	----------------------

Note : Any alternative offers shall be fully Priced at the time of tender.

Signature of Bidder

MAHARASHTRA FIRE SERVICES

Supply & Delivery and mounting of Turn Table Ladder (TTL) _____ Mtrs. to _ Mtrs.

7. SCHEDULE OF PRICES

Preamble

- Part 1 Supply items
- Part 2 Currency Payments

PREAMBLE

SP 1 Bidders before completing the schedule of Prices, shall carefully read clause 10.2 to 10.3 of the instructions to Bidders to determine into which group their bid shall fall. Bidder will be required to produce documentary evidence to establish the group in to which their tender falls.

Each item is to be individually priced in the ink and the “Amounts” shall be added up to the bid sum. The Working under Description of Works is for the subject matter guidance only, clause references are not complete and all other relevant clause must be consulted. The Contractors prices must allow for all equipments as specified and for all contractual obligations whether separately specified or not.

SP 2 The Bidder shall submit detailed descriptions of the equipments to be supplied under each priced item.

SP 3 Except as provided in the Conditions of Contract, all prices other than Provisional Sums shall be fixed prices in all respects. Payment will be made in accordance with the conditions of the Contract.

SP 4 The Corporation will render all necessary and reasonable assistance to the successful tenderer in securing advance foreign exchange releases and import licenses from the Govt. of India, required for meeting the commitments under this Contract if any.

SP 5 All prices shall be entered in Indian Rupees and payment will be made in Indian Rupees.

SCHEDULE OF PRICES

(Please attached separate sheets for different Heights as mentioned in this Tender Document)

Part- 1: supply items Name of Bidder

The quoted prices shall be for entire quantity

1	2	3	4	5	6	7	8	9
S R.	DESCRIPTION	CO UN TR Y OF ORI GIN	QT Y	COST OF EQUIPMENT EX-FACTORY, EX- WAREHOUSE, EX- SHOWROOM, OFF-THE- SHELF IN RS	TRANSP ORT & INSURA NCE CHARGE S UPTO SITE IN RS	TOTAL PRICE [COLUM NS 5+6 IN RS.]	CENTRAL, STATE & LOCAL TAXES INCLUDING EXCISE DUTY & OCTROI	TOTAL FINAL PRICE IN RUPEE [COLUMN S 7+8 IN RS.]
1.	DESIGNING, FABRICATION, MOUNTING TESTING, AND DELIVERY OF TURN TABLE LADDER ____ Mtrs. to ____ Mtrs		1 NO.					
2.	COMPREHENS IVE SERVICE MAINTENANC E CONTRACT COST FOR 1ST YEAR		1 NO.					

1	2	3	4	5	6	7	8	9
3.	COMPREHENSIVE SERVICE MAINTENANCE CONTRACT COST FOR 2 ND YEAR		1 NO.					
3.	COMPREHENSIVE SERVICE MAINTENANCE CONTRACT COST FOR 4 TH YEAR		1 NO.					
4.	COMPREHENSIVE SERVICE MAINTENANCE CONTRACT COST FOR 5 TH YEAR		1 NO.					
	TOTAL							

Signature of Bidder

Annexure B – TENDER OFFER FORM (TOF)

Tender Reference No.: _____

Date: _____ 2011

To: (Name and address of purchaser)

Gentlemen:

Having examined the tender documents including all annexure the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver

_____ (Description of goods and Services) in conformity with the said tender documents.

We undertake, if our tender offer is accepted, to commence delivery within _____ (Number) days and to complete delivery of all the items and perform incidental and supervisory services as specified in the Contract within _____ (Number) days calculated from the date of receipt of your Notification of Award / Letter of Intent.

If our tender offer is accepted we will obtain the guarantee of bank for a sum of Rs. 40,00,000 (Rupees Forty Lakhs only) for the due performance of the Contract.

We agree to abide by this tender offer till DD/MM/YY and shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this tender offer, together with your written acceptance thereof and your notification of award shall constitute a binding contract between us on terms and conditions as mentioned under the Tender Document.

We understand that you are not bound to accept the lowest or any offer you may receive.

Dated this ____ day of _____ 2011

Signature: _____

(In the Capacity of:) _____

Duly authorized to sign the tender offer for and on behalf of

Annexure C – Prequalification Compliance Form

S.No.	Eligibility Criteria	Documents to be submitted
1.	The Bidder should be a registered company and the date of incorporation should be more than 5 years before the last date of submission of bids.	The Companies Incorporation certificate shall be submitted
2.	The Bidder should have a workshop and service facility in Maharashtra. (No back-end-tie –ups)	The address of the workshop and service facility shall be submitted.
3.	The Bidder shall have not less than 5 Crores of Turnover in India during each of the last 3 calendar year.	A certificate from the Statutory Auditor to this effect shall be submitted along with the Profit and Loss Accounts statement.
4.	The Bidder shall be in the business of supplying Rescue Tools & Equipments & Thermal Imaging Camera for at least three years.	The purchase order having the date earlier than 3 years before the last date of submission of bids shall be submitted.
5.	The Bidder should have supplied at least 100 Sets of Rescue Tools & Equipments in the last 3 years.	Copy of the work order / Performance certificate in support of supply shall be submitted. The date of work order shall not be earlier than 3 years before the last date of submission of bids.
6.	The Bidder should have supplied at least 15 Sets of Rescue Tools & Equipments in the last 3 years	The purchase order having the date earlier than 3 years before the last date of submission of bids shall be submitted.
7.	It shall be profit making for last three years.	A certificate from the Statutory Auditor to this effect shall be submitted along with the Profit and Loss Accounts statement.
8.	The Bidder should furnish Satisfactory Performance certificate, from State Government / ULB's /SPA / MNC's for execution of similar type of Job specified in this tender document	Satisfactory completion certificates from the clients.
9.	The Bidder should not have been blacklisted by any Government / ULB's/SPA's MNC	Self declaration of the company in this regard in the format given in Annexure T . If the Bidder is blacklisted during the currency of the RC, it will be deemed cancelled and without any need to issue any notice
10.	For Rescue Tools & Equipments & Thermal Imaging Camera testing, the Bidder should have, In house Testing facility as per IS standards. &	Documentary evidence alongwith the actual photographs of the testing facilities should be submitted

Annexure D - DETAILS OF BIDDER

Details filled in this form must be accompanied by sufficient documentary evidence, in order to verify the correctness of the information.

Sr. No.	Item	Details
1.	Name of the Company	
2.	Mailing Address	
3.	Telephone and Fax numbers	
4.	Constitution of the Company	
5.	Name of the Managing Director	
6.	Turn over and profit of the company 2008-2010	
7.	Sales Tax Clearance Certificate (upto December 2008) attached	
8.	Valid Income tax clearance certificate attached	
9.	Whether direct manufacturer or authorized dealers	
10.	Name and address of Distributors /dealers / marketing agents	
11.	Location of Manufacturing facility	
12.	Manufacturing Capacity (Product –wise)	
13.	Licensed Capacity	
14.	Installed capacity	
15.	Equipped capacity for throughout	
16.	Actual Production / sales of quoted items during last two years	
17.	Brief Description of facilities for manufacturer, production, inspection, and testing and quality assurance.	
18.	Are you providing comprehensive post warranty to Organisations at Mumbai and other locations where you have supplied similar goods in the past? If yes then furnish details of such organizations	
19.	Are above past customer Organisations satisfied with the performance and quality of service rendered?	

Annexure E Performance Statement

(for a period of last three years)

Tender Number

Name of the Firm _____

Order Number & Date	Order Placed by (Full Address of Purchaser)	Description & Quantity of ordered equipment	Value of order in Rupees	Date of Completion of Delivery		Remarks indicating for reasons for the late delivery if any	Have the equipment been satisfactory functioning
				As per Contract	Actual		

Date: _____

Place: _____

Signature of The Bidder

Annexure F

Declaration towards the production capacity

A declaration on the letterhead of the Company signed by the authorised signatory needs to be submitted mentioning the annual production capacity of Rescue Tools & Equipments & Thermal Imaging Cameras.

Annexure –G
Annual sales Turnover calculation

(On Applicant’s Statutory Auditor’s letterhead)

Date:

This is to certify that we M/s----- are the statutory Auditors of M/s----- and that the below mentioned calculations are true as per the Audited Financial Statements of M/s----- for the below mentioned years.

S.No.	Annual Sales Turnover Calculation	2009-2010	2008-2009	2008-2007
1	Total Sales as per the P/L A/c (A)			
2	Less: Custom and/or Excise Duty if included in Total Sales as per P/L A/c (B)			
3	Less: Sales Tax if included in Total Sales as per P/L A/c (C)			
4	Less: Any other statutory taxes if included in Total Sales as per P/L A/c (D)			
5	Less: Any other income from sources other than the normal business source if included in Total Sales as per P/L A/c (E)			
6	Annual Turnover (F) =(A)-(B)-(C)-(D)-(E)			

Annexure – H
Quality Certifications

S.No.	Certification	Copy Attached – Reference Number
1.		
2.		
3.		
4.		

Annexure - I
Approach and Methodology

Please provide the following details

Delivery Methodology
<ol style="list-style-type: none">1. Understanding of requirement2. Methodology adopted from date of purchase till the date of delivery3. Detail of Setup and facility available for carrying out necessary work
Testing Methodology
<ol style="list-style-type: none">1. Details of testing facility available with the Company in their workshop with respect to Relevant Indian Standards such and International standards approved Details of testing facility available with the Company in their workshop with respect to Relevant Standards.2. If required, Facility for Testing as per the required standards as mentioned above, shall be ascertained by the 3 / 4 men committee3. The availability of in house testing facility as per necessary standards (BIS), the Bidder shall give declaration to that effect. At the time of inspection , if it is observed that such facilities either do not exist or those are inadequate the said bidder shall be outright black- listed
Training
<ol style="list-style-type: none">1. Training Methodology to be adopted for providing training to Client officials2. Number and Qualification of training resources available with the Company.3. Training Scheduled & Module should be submitted by the vendor for actual operation of the system , Onsite free training for minimum, 3days should be imparted to the users
Service Methodology
<ol style="list-style-type: none">1. The methodology for providing servicing and support post implementation

Annexure - J

DRAFT CONTRACT FORM (CF)

THIS CONTRACT is made on the day of2011 between **Maharashtra Fire Services**, a corporation constituted under the _____ and having its principal office at _____, hereinafter referred to as the “**Purchaser**” of the One Part and _____, a company incorporated under the Companies Act, 1956 and having its registered office at _____ (hereinafter called the “**Vendor**”) of the Other Part.

The Purchaser and the Vendor are hereinafter also referred to collectively, as “**PARTIES**” and severally, as a “**PARTY**”.

WHEREAS

- A. The Purchaser floated a Tender number _____ dated ____ for the purpose of procuring goods and services related to designing, commissioning, Installation, Erection and testing for Rescue Tools & Equipments & Thermal Imaging Camera via a Rate Contract for the benefit of Purchaser Parties (hereinafter referred to as the “**Tender**”); and
- B. The Vendor was selected as a successful Bidder among the other Bidders along with the other vendors after a competitive bidding process.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. Definition & Interpretations:

In the Contract the following words and expressions shall have the meanings hereby assigned to them except where the contract otherwise requires:

- (a) The “MFS” shall mean the Maharashtra Fire Services, constituted under the MID Act 1966
- (b) The “DIRECTOR” shall mean the DIRECTOR of MFS, for the time being holding the said office and also his successors and whom the powers of the DIRECTOR have been delegated under the Maharashtra Fire Prevention & Life Safety Act 2006.
- (c) The “Contractor” shall mean the individual or firm or company whether incorporated or not, undertaking the works and shall include legal representatives or such individuals or persons composing such firm or un-incorporated company or successors of such firm or company as the case may be and permitted assigns of such individual or firm or company.

- (d) The “Sub-Contractor” shall mean any person (other than the contractor) named in the Contract for any part of the Works or any person to whom any part of the Contract has been sublet with the consent in writing of the DIRECTOR and the legal personal representatives, successors and assigns of such person.
- (f) The “Engineer’s Representative” means any engineer, consulting engineer or assistant of the Engineer appointed from time to time by the DIRECTOR to perform the duties delegated.
- (g) The “Contract” shall mean the tender and acceptance thereof and the formal agreement, if any, executed between the Corporation, the DIRECTOR and the Contractor together with the documents referred to therein including their conditions, schedules and appendices and any special conditions, the specifications, design drawings any price schedule. All these documents taken together shall be deemed to form one contract and shall be complementary to one another.
- (h) “Expected risks” are risks due to riots (otherwise than among Contractors employees) and civil commotion (in so both these are uninsurable), war (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any act or Government, damage from air craft, acts control and accepted as such by the DIRECTOR or causes solely due to use or occupation by the of the works in respect of which a certificate of completion has been issued or a cause solely due to faulty Municipal design of the works.
- (i) The “Works” shall mean the supply of Aerial Platform Ladder 68 Mtrs and the equipment in relation to thereof & in accordance with the Contract.
- (j) The “Site” shall mean the land and/or places, at which the plant is to be installed including any other lands or places, which may be allotted by the DIRECTOR MFS or used for the purpose of the Contract.
- (k) The “Contract Price” shall mean the sum named in the tender, subject to such additions thereto or deductions there from as may be made under the provisions hereinafter contained.
- (l) The “Contract Value” shall mean that part of the Contract price which is properly apportionable to the plant or work in question having regard to the state, condition and topographical location of the plant, the amount of work done, and all other relevant circumstances, and disregarding any changes

that may have occurred since the date of the contract in cost of executing the works.

- (m) "Time of Completion shall mean the time for completion mentioned in the tender for the supply of the plant and shall commence from the date of placing the order or from the date of Letter of Credit as the case may be.
- (n) The "Plant" shall mean machinery, apparatus, materials, articles and things of all kinds to be provided under the Contract.
- (o) The "Specification" shall mean the specification annexed to or issued with these General Conditions.
- (p) The "Month" shall mean calendar month.
- (q) The "Writing" shall mean any manuscript, typewritten or printed statement under Seal or hand.
- (r) "CIF Cost" shall mean the cost of the plant free on board at the time of shipment plus the cost of marine freight and insurance of the equipment upto the designated port of Mumbai. CIF cost is applicable only in the case of imported plant.
- (s) "FOR Cost" shall mean the cost of the plant free on rail at any designated Fire Station in the state of Maharashtra; The cost is inclusive of sales tax and all other local taxes.
- (t) "**Services**" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services applicable, such as installation, commissioning, provision of technical assistance, training, on-site comprehensive warranty, annual maintenance and other obligations of the Supplier covered under this Contract or the Tender Document.
- (u) "The Purchaser" means
 - v) Director, Maharashtra Fire Services, Govt. of Maharashtra.
 - vi) Urban Local Bodies (ULBs)
 - vii) Special Planning Authorities (SPAs)
 - viii) State Govt. or State Govt. Undertakings, Enterprises, Organizations or Companies.
- (v) "The Supplier" means the individual or Firm supplying the goods under this Contract.
- (w) "**Applicable Law**" means any law, rule, regulation, ordinance, notification, circular, order, code, treaty, judgment, decree, injunction, permit or decision of any central, state or local government, authority, agency, court, tribunal, regulatory body or other body having jurisdictional over the matter(s) in question, as in effect from time to time.
- (x) "**Bidder**" means an eligible manufacturer who had placed his bid or offer

for the goods and services against the invitation to Tender under the Tender Document.

- (y) **"Fire Tender"** shall mean Turn Table Ladder (TTL)
- (z) **"Gross Negligence"** means any act or failure to act by a Party which was in reckless disregard of or gross indifference to the obligations of the Party under the Contract and which causes harmful consequences to life, personal safety or real property of the other Party which such Party knew, or would have known if it was acting as a reasonable person, would result from such act or failure to act. Notwithstanding the foregoing, Gross Negligence shall not include any action taken in good faith for the safeguard of life or property.

H) "Agency" means an agency which has been selected as per the process stipulated in this Bid document/ Tender document

I) "Contract" means the agreement entered into between the Purchaser and a successful Bidder, as recorded in the DRAFT CONTRACT FORM signed by the DIRECTOR and the successful Bidder, including all the attachments and appendices thereto, and all documents incorporated by reference therein;

J) "Goods" means all the equipment, machinery, and/or other materials which the Bidder is required to supply to the Purchaser under the Contract;

K) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services applicable, such as installation, commissioning, provision of technical assistance, training, on-site comprehensive warranty, annual maintenance and other obligations of the Bidder covered under the Contract.

L) Abbreviations :-

- j. RC:- Rate Contract
- k. ULBs :- Urban Local Bodies
- l. SPAs - Special Planning Authorities
- m. EMD :- Earnest Money Deposit
- n. DD :- Demand Draft
- o. BG :- Bank Guarantee
- p. MFS :- Maharashtra Fire Services
- q. TTL – Turn Table Ladder
- r. EN :- European Nations standards

M) "Standards" means **EN 14043 / EN 14044 / EN 1777 AND EN 280 AND EN 280 AND EN 280 OR "JAPANESE INTERNATIONAL SAFETY STANDARDS FOR LADDER TRUCK"** for Hydraulic Platforms & Turn Table Ladders

G)

H)

(I) "**Letter of Intent**" shall mean the letter of intent dated ____ issued by the Purchaser favouring the Supplier.

(J) "**Purchase Order**" shall mean any order for the procurement of Goods placed by a Purchaser Party with the Supplier.

(K) "**Tender Document**" means the Tender issued by the Purchaser for the purpose of procuring goods and services related to designing, commissioning, fabrication and testing for Fire Tender for the benefit of the Purchaser Parties and shall include the Invitation of Tender, Instructions to Bidders, Terms and Conditions of Contract, Detailed Specifications for Fire Tenders and the Schedules, Annexure or addendum thereto, as may be amended from time to time.

(L) "**Willful Misconduct**" means an intentional disregard of any provision of this Contract which a Party knew or should have known if it was acting as a reasonable person, would result in harmful consequences to life, personal safety or real property of the other Party but shall not include any error of judgment or mistake made in good faith.

(M) All the terms not defined under this Contract shall have the same meaning as assigned to them under the Tender Document.

2. **Application:**

10.1 These General Conditions shall apply to the extent that the provisions in other parts of the contract do not supersede them.

3. **Country of Origin:** -

3.4 All Goods and Services supplied under the Contract shall have their origin in the member countries. These rules are explained under the Special Conditions of Contract.

3.5 For purposes of this Clause "Origin" means the place where the Goods were mined, grown or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing or substantial or major

assembling of components, a commercially recognized new product results that is substantially different in basis, characteristics or in purpose or utility from its components.

3.6 The Origin of Goods and Services is distinct from the nationality of the Supplier.

4. **Standards:**

4.2 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specification and when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods country of origin and such standard shall be the latest issued by the concerned institution.

5. **Use of Contract Documents and Information:**

5.4 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision, thereof or any specification, plan, drawing, pattern, sample or information furnished by or in behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract, Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purpose of such performance.

5.5 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or part of document or information enumerated in para 5.1 except for purpose of performing the Contract.

5.6 Any document, other than Contract itself, enumerated in para 5.1 shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

6. **Patent Rights etc:**

6.2 The supplier shall fully indemnify the Corporation against all actions, claims demands, costs, charges and expenses arising from or incurred by reasons of any infringement of letters patent, design or copyright protected in the Contractor's country or in the country in which the Goods is to be used, by the use of any goods supplied by the Contractor, but such indemnity shall not cover any use of the goods otherwise than for the purpose indicated by or reasonably to be inferred from, the specification.

In the event of any claim being made or action brought against the Corporation

arising out of the matters referred to in this clause the Contractor shall be promptly notified thereof and may at his own expense conduct all negotiations for the settlement of the same and any litigation that may arise there from. The Corporation shall not, unless and until the Contractor shall have failed to take over the conduct of the prejudice thereto. The conduct by the contractor of such negotiations, Or litigations shall be conditional upon the Contractor having first given to the Corporation such reasonable security as shall from time to time be required by the Corporation to cover the amount ascertained or agreed of estimated as the case may be of any Compensation, Damages, expenses and costs for which the Corporation may become liable in respect of such infringement as aforesaid. The Corporation shall, at the request of the Contractor afford all available assistance for the purpose of contesting any such claim or action and shall be repaid any expenses incurred in so doing.

7. **Performance Security:**

7.5 Within 15 days after the Supplier's receipt of notification of award of the Contract, the Supplier shall furnish performance security to the Purchaser in the amount specified in the Special Conditions of Contract.

7.6 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the contract.

7.7 The Performance Security shall be denominated in the currency of the Contract or in a freely convertible currency acceptable to the Purchaser, and shall be in the form of a Bank Guarantee from Bank mentioned in the approved list of Banks.

7.8 The Performance security will be discharged by the Purchaser and returned to the Supplier not later than 30 days following the date of completion of the supplier performance obligations, including any warranty obligations, under the contract.

8. **Inspection and Tests**

8.1.6 The Purchaser or its representatives shall have the right to inspect and/or to test the goods to confirm their conformity to the Contract. The Special Conditions of Contract and/or the Technical Specifications shall specify what inspections and test the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing of the identity of any representatives retained for these purposes.

8.1.7 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Good's final destination.

When conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance including access to drawing and production data shall be furnished to the inspectors at no charge to the Purchaser.

- 8.1.8 Should any inspected or tested goods fail to conform to the specifications, the Purchaser may reject them and the Supplier shall either replace the rejected goods or make all alterations necessary to meet specification requirements free of cost to the Purchaser.
- 8.1.9 The Purchaser's right to inspect, test and where necessary, reject the goods after the goods arrival in the Purchaser's country shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment from the country of origin.
- 8.1.10 Nothing in clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

9. Packing:

- 9.4 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and open storage packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods final destination and the absence of heavy handling facilities at all points in transit.
- 9.5 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract and subject to Clause 10, in any subsequent instructions ordered by the purchaser.
- 9.6 **Prices quoted in tenders and in the Contract shall include the cost of packing** or protector required under normal transport conditions to prevent damage to or deterioration of the goods before its destination as stated in the contract.

10. Delivery and Documents:

- 3.1 No goods shall be shipped or delivered until an intimation in writing has been received by the supplier from the DIRECTOR or Purchaser , that the goods may be delivered.
- 3.2 Before dispatch from the Contractor's works all goods shall be adequately protected by painting or by other suitable means for the whole period of transit

and storage in a tropical humid climate prior to use, against corrosion and incidental damage including the effects of vermin, strong sunlight, rain, high temperature and humid or salty atmosphere or sea spray. The supplier shall be held responsible for the goods being so protected as to ensure that as far as is practicable it reaches its ultimate destination intact and undamaged.

- 3.3 The supplier shall be deemed to have included in the bid prices for all material and packing crates or cases appropriate to the particular item of goods necessary for the safe package, conveyance and delivery of the goods.
- 3.4 Detailed instruction including the name (names) of ultimate consignee (consignees) shall be furnished to the Contractor separately after the Contract is awarded. The contractor shall arrange to consign the material accordingly and ensure that each box or unit of shipment is legibly and properly marked for correct identification. Failure to comply with this requirement shall render the Contractor liable for any additional expenses involved.
- 3.5 The Contractor shall give complete shipping information concerning the weight, size and content of each package including any other information the Corporation may require.
- 3.6 Transshipment of goods shall not be permitted except with the written permission of the Corporation.

For Foreign Goods

The following documents shall be airmailed to Purchaser within 7 days from the date of shipment:

- (g) Three copies of the Supplier's invoice showing Goods description, quantity, unit price, total amount:
- (ii) Original and duplicate copies of the negotiable, clean on-board bill of lading marked freight prepaid and two copies of no-negotiable bill of lading:
 - 8.6 Three copies of packing list identifying contents of each package:
 - 8.7 Valid Insurance Certificate in triplicate
 - 8.8 Manufacturer's/Supplier's guarantee certificate in duplicate.
 - 8.9 Three copies of Inspection certificate, issued by the nominated inspection agency and the Supplier's factory inspection report: and
 - 8.10 Certificate of origin in duplicate

For Domestic Goods, If any

Telephonic instructions shall be sent to the Consignee immediately the goods are

booked and the following documents shall be sent to the Purchaser by registered mail the same day:

- (i) Three copies of the Supplier invoice showing goods description, quantity, unit price, total amount:
- (ii) Delivery note/railway receipt/truck receipt
- (iii) Manufacturer's Supplier's guarantee certificate
- (iv) Valid Insurance Certificate
- (v) Three copies of Inspection certificate issued by the nominated inspection agency and the Supplier factory inspection report:

- (vi) Certificate of origin: and
- (vii) Three copies of packing list

11. **Insurance of Plant:**

- 11.4 The Contractor shall provide for insurance coverage for an amount equal to the CIF or FOR value as appropriate plus an additional 10 per cent thereof and the same shall extend from the date of dispatch of the goods until its arrival at the final designated destination from Mumbai Port. The insurance policy should provide coverage against all risks, including those of wars riot, strikes and malicious damage.
- 11.5 If the Contractor shall fail to effect and keep in force such insurance the Purchaser may effect and keep in force and such insurance and pay such premium or premium as may necessary for that purpose and from time to time deduct the amount paid by Purchaser the from payment due or which may become due to the Contractor or recover the same as a debt from the Contractor.
- 11.6 If the goods or any portion thereof is damaged or lost during transit, the purchaser shall give notice to the Contractor setting forth particulars of such goods damaged or lost during transit. The replacement of such goods shall be effected by the Contractor within 15 days from the receipt of such notice to avoid unnecessary delay in supply of goods. The replacement price of items shall be recovered by the Contractor from the insurance coverage provided for this purpose. The import license/port clearance, permit, etc. in respect of a foreign supply contract, required for the purpose shall be made available by the Corporation for such goods. In the case of contracts awarded to domestic contractors, the replacement of goods damaged during transit shall be made free of cost by the Contractor.

12. **Transportation:**

20.1 The goods are to be delivered at the site of the purchasers Fire station specified by Purchaser in the state of Maharashtra (India). Prices shall be inclusive of cost of the goods free on board at the time of shipment plus the cost of marine freight, land freight and insurance of the goods from the Manufacturers ware house to the site Purchasers Fire station specified by DIRECTOR, MFS or the purchaser in the state of Maharashtra (India)

13. **Incidental Services:**

13.1 As specified in the Special Conditions of Contract, the Supplier may be required to provide any or all of the following services;

- (a) Performance & supervisions of on-site assembly and start-up of the supplied goods.
- (b) Furnishing of tools required for assembly and maintenance of the supplied goods.
- (c) Furnishing of a detailed operations & maintenance manual for each appropriate unit of the supplied goods.
- d) Performance, supervision, maintenance and repair of the supplied Goods, for a period of time agreed by the parties, provided that his service shall not relieve the supplier of any warranty obligations under this contract, and
- e) Conducting Training of the Purchaser's personnel, at the Supplier's plant and on-site, in assembly, start-up, operations, maintenance and repair of the supplied goods.

22. **Warranty**

23.1 The Supplier warrants that the goods supplied under the Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that the Goods supplied under this Contract shall have to defect arising from design, materials or workmanship (except insofar as the design or materials is required by the Purchaser's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied goods in the in the conditions obtaining in the country of final destination.

23.2 This warranty shall remain valid for 36 months after the goods or any portion thereof as the case may be, have been delivered to the final destination indicated in the Contract, unless specified otherwise in the Special Conditions of Contract.

- 23.3 The Purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 23.4 Upon receipt of such notice, the Supplier shall, with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the Purchaser other than, where applicable, the cost of inland delivery of the repaired or replaced goods or parts from the port of entry to the final destination, including custom duties.
- 23.5 If the Supplier, having been notified, fails to remedy the defect(s) within a reasonable period, the purchaser may proceed to take such remedial action as may be necessary at the Supplier's and expenses and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

23. Payment:

- 16.5 The method and conditions of payment to be made to the Supplier under Contract are specified in the Special Conditions of Contract.
- 16.6 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and services performed, and by shipping documents, submitted pursuant to clause 10, and upon fulfillment of other obligations stipulated in the contract.
- 16.7 Payments shall be made promptly within thirty (30) days of submission of an invoice/claim by the Supplier.
- 16.8 Payment will be made in the currency or currencies in which the Contract price has been stated in the Supplier's bid as well as in other currencies in which the Supplier had indicated in its bid that it intends to incur expenditures in the performance of the Contract and wishes to be paid.

17. Prices

- 17.2 Prices charged by the Supplier or goods delivered and Services performance under the contract shall not, vary from the prices quoted by the Supplier in its bid.

18. Change Orders:

20.1 The Purchaser may at any time, by a written order given to the Supplier pursuant to clause 31, make changes within the general scope of Contract in any one or more of the following: -

- (g) Drawings, designs or specifications, where goods to be furnished under

the contract are to be specifically manufactured for the Purchaser.

- (h) The method of shipment or packing.
- (c) The place of delivery, or;
- (d) The services to be provided by the Supplier.

18.2. If any such change causes an increase or decrease in the cost of, or the time required for, the supplier's performance of any part of the work under the Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claim by the supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

19. **Contract Amendment:**

19.2 Subject to cause 18, no variation in or modification of terms of the contract shall be made except by written amendment signed by the parties.

20. **Assignment:**

20.2 The Supplier shall not assign, in whole or in part its obligations to perform under the Contract, except with the Purchaser's prior written consent.

21. **Sub – Contracts**

21.2 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the contract if not already specified in his bid, such notification, in his original bid or later shall not relieve the supplier from any liability or obligation under the Contract.

22.4. Subcontracts must comply with the provision of Clause 3

23. **Delays in the Supplier's performance:**

22.2 Delivery of the goods and performance of Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in its schedule of Requirements.

23.2. An unexpected delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to any or all of the following actions, forfeiture of its performance security, imposition of liquidated damages, and/ or termination of the Contract for default.

23.3. It at any time during performance of the Contract, the Supplier or its subcontractor (s) should encounter conditions impeding timely delivery of the

goods and performance of services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay its likely duration and its cause (s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the contract.

23. Liquidated Damages:

23.2 Subject to Clause 25, if the Supplier fails to supply any or all of the goods or perform the services within the time period (s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the contract price as liquidated damages, a sum equivalent to half percent of the delivered price of the delayed goods or unperformed services for each week of delay until actual delivery or performance, upto a maximum deduction of 10% of the delayed goods or services contract price. Once the maximum is reached the Purchaser may consider termination of the contract.

25. Indemnity

The Supplier shall indemnify, defend and hold harmless the Purchaser and its respective officers, directors, employees, representatives and agents as well as the Purchaser Parties ("Indemnified Parties"), from and against any and all suits, actions, liabilities, legal proceedings, claims, demands, losses, costs and expenses of whatsoever kind or character, including without limitation, reasonable attorneys' fees and expenses, for injury or death of third parties or loss of or damage to property of third parties or any other loss or damage caused to the Indemnified Parties, whether direct or indirect, arising as a result of or in connection with (i) any failure on the part of the Supplier to perform its obligations under the Contract or the Tender Document, (ii) any breach on the part of the Purchaser of terms, conditions, representations or warranties under the Contract or the Tender Document, (iii) any negligent acts or omissions or Willful Misconduct by the Supplier or anyone acting on Supplier's behalf or (iv) any violations of safety procedures, prescribed by the Purchaser or any Applicable Law or any Government Authority, by the Supplier or its employees, agents, representatives or independent contractors or (v) any faulty vehicle, Goods or Services provided by the Supplier (vi) any infringement of any patent, trademarks, copyrights or any other Intellectual Property Rights or statutory infringements in respect of all the Goods supplied by the Supplier.

27 Termination for Convenience:

- 28.1 Notwithstanding anything contained under this Contract, the Purchaser reserves the right to terminate by prior written notice, the whole or part of the Contract without prescribing any reasons thereof. The notice of termination shall specify that termination be for the Purchaser's convenience, the extent to which performance of work under the Contract is terminated and the date on which such termination becomes effective. Upon termination of this Contract, the Purchaser shall have the right to enter into an agreement with any third party for the completion of work or hiring services similar to that of the Supplier and shall in no way be answerable to the Supplier for such acts. Upon termination, the Purchaser shall compensate the Supplier to the extent of works completed by the Purchaser provided that the Purchaser shall be entitled to deduct from such compensation, an amount equivalent to the losses caused to the Purchaser, any amount due from the Supplier as on the date of termination, all the damages caused to the Purchaser, etc.
- 28.2 The Goods that are complete and ready for shipment within 30 days after the Suppliers receipt of notice of termination shall be purchased by the purchaser at the Contract terms and prices. For the remaining goods, the Purchaser may elect:
- (a) To have any portion completed and delivered at the Contract terms and prices, and or
 - (b) To cancel the remainder and pay to the Supplier an agreed for partially completed goods and for materials and parts previously procured by the Supplier.

29 Settlement of Disputes:

- 33.2. Except as otherwise specifically provided in the contract all disputes questions of fact arising under the contract shall be decided by the purchaser subject to a written appeal by the Contractor to the purchaser whose decision shall be final to the parties hereto.
- 28.2 Any disputes or difference including those considered as such by only one of the parties arising out of or in connection with this Contract shall be to the extent possible settled amicably between the parties.
- 31.1 If amicable settlement cannot be reached then all disputed issue shall be settled

by Arbitration as provided in Clause 12 of special conditions of contract.

34. Governing Language:

29.2 The contract shall be written in the language of the bid, as specified by the Purchaser in the instructions to Bidders, subject to clause 30, that language version of the contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties shall be written in that same language.

35. Applicable Law:

30.2 The contract shall be interpreted according to and subject to the Laws of India, and under the jurisdiction of the courts of Mumbai , Maharashtra (India).

36. Notices:

31.1 Any notices given by one part of the other pursuant to the Contract shall be sent in writing or by telegram or telex/cable and confirmed in writing to the address specified for the purpose in the Special Conditions of Contract.

38.1 A notice shall be effective when delivered or on the notice's effective date, whichever later.

37. Taxes and Duties:

32.1 A foreign Supplier shall be entirely responsible for all taxes, stamp duties, license fees and other such levies imposed outside the Purchaser's country.

8.1 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc, incurred until delivery of the contracted goods to the Purchaser.

38. Termination of Contract

38.1.Default

The Purchaser may, without prejudice to any other remedy for breach of contract, by one week written notice of default sent to the Supplier, terminate the contract in whole or in part:

viii. If the supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser; pursuant to clause no.22 or

ix. If there occurs serious discrepancy in supply of Goods or its certification is noticed during the Contract period; or

- x. If there is a breach by the Supplier of any of the terms and conditions of the Contract or the Tender Document; or
- xi. If the Supplier fails to perform any of its duties and/or obligations provided under the Contract or the Tender Document; or
- xii. If the Supplier goes in to liquidation voluntarily or otherwise; or
- xiii. If the Supplier fails to perform any other obligation(s) under the Contract; or
- xiv. If the Supplier, in the judgment of the Purchaser has engaged in a Corrupt Practice, a Fraudulent Practice, a Restrictive Practice, an Undesirable Practice and/or a Coercive Practice in competing for or in executing the Contract.

34.2 Upon termination, the Purchaser shall compensate the Supplier to the extent of works completed by the Purchaser provided that the Purchaser shall be entitled to deduct from such compensation, an amount equivalent to the losses caused to the Purchaser, any amount due from the Supplier as on the date of termination, all the damages caused to the Purchaser, etc.

10. SECURITY DEPOSIT – CUM- PERFORMANCE GUARANTEE

Every successful Bidder shall furnish a Security Deposit within a period of seven days from the signing of the Contract as follows:

Security Deposit - cum- performance guarantee of Rs. 1,00,00,000/- (Rs. One Hundred Lakhs only) in the break up as provided below -

- 4. Security Deposit of Rs. 100,00,000/- (Rupees **One Hundred** Lakhs only) - The EMD worth Rs. 25,00,000/- provided by the successful Bidder shall be adjusted partly against the Security Deposit – cum – Performance Guarantee. The EMD shall, on the signing of the Contract, be converted into a Security Deposit of Rs. 25,00,000/-
- 5. Security Deposit of remaining Rs. 75,00,000/- (Rupees Seventy five Lakhs only) - The remaining amount of Security Deposit - cum- Performance Guarantee i.e. Rs. 75,00,000/- (Rupees Seventy five Lakhs Only) shall be provided in the form of a Bank Guarantee issued by any Nationalised bank in favour of “**Fire Adviser to the Government of Maharashtra**”, Mumbai. This Bank Guarantee shall be submitted in the format specified in **SECURITY DEPOSIT CUM PERFORMANCE GUARANTY FORM (Annexure K)** provided in the Tender Document.

The Security Deposit shall be refunded to the concerned Vendor after 3 months of expiry of the Contract or after 3 months of successful completion of the Purchase Order placed before the Vendor under the Contract, whichever is later,

after deducting the penal amount, if any. The Security Deposit -cum-performance guarantee may be forfeited in case of violation of terms of the Tender. Vendors having any pending work with them or of those cases, if release under any dispute or contrivances shall not be entitled for the refund of Security Deposit or performance warranty.

11. QUALITY OF GOODS

The equipment/product must conform to the highest quality and standard specified in Tender Document. Vendor should guarantee that the items delivered to the Purchaser are brand new. All tools/ motors/ machines must be supplied with their original and complete printed documentation and technical specifications and Test Certificates, if any. For imported items, the Vendor should submit the import documents.

Consistency must be maintained for the entire lot of the Rescue Tools & Equipments & Thermal Imaging Camera. All the required items in schedule of requirement must be of the same brand and of the same or higher technical specification.

All the equipment should be supplied with the relevant Indian or international standards, where ever the Indian standards are not in existence the decision of Director, MFS in this regard will be final.

12. INSPECTION

The Vendor will have to submit in detailed Quality Control Procedures and standards adopted in the manufacturing process.

- Director, Maharashtra Fire Services or his authorized representatives will carry out the stage-wise inspection.
- Each stage wise inspection will be carried out by three member's team authorized by Director, Maharashtra Fire Services.
- Inspection will be carried out at the Manufacturers factory premises at the country of origin.
- Contractor will abide the schedule of stage wise inspection well in advance.
- ALL Expenses of inspecting team members should be borne by the contractor. To and from expenses towards the traveling of the team members by minimum Railways AC- class II or Air Fare to the nearest destination and local transport and lodging and boarding of optimum standards from the journey place to the works will be borne by the successful bidder and the offer shall contain all such expenses.

In case if work order are received by the vendor in bulk quantity vendor shall prepare the batch inspection schedule to avoid time and effort of inspection team.

Vendor shall submit the probable schedule of stage wise inspection well in advance. The Goods will be delivered only after IVth stage inspection is completed.

Stagewise Inspection

Advance notice of at least 2 week should be given by the Vendor, however, the Vendor must keep the goods ready for stage wise inspection before giving such notice. Purchase reserves the right for carrying the immediate inspection after receiving such notice for inspection.

The stages of inspection will be as under:-

Site Inspection for checking various test carried our in relation to Operations.

Site Inspection in relations to operating procedure, dimensions etc. as mentioned in Annexure A. Acceptance Test.

13. INSURANCE

(A) Cost of TO & FRO Transit Insurance of the goods should be borne by the Vendor to the satisfaction of the Purchaser. The Vendor should insure the goods and shall also obtained full comprehensive insurance to cover the fire & general Risk, while its transportation from the authorized dealer of the goods as specified by the Director, Maharashtra Fire Services or any other Purchaser,

The goods should be insured by the Vendor even at the time of supply of goods to the fire station. The Comprehensive insurance shall be till the goods are supplied to the purchaser. All the insurance policies shall be in the name of Director, Maharashtra Fire & Emergency Services or any other Purchaser the case may be, Insurance claims, if any should be settled by the Vendor. It is the responsibility of the Vendor to insure the complete goods & equipments till the delivery on site as specified by the Purchaser.

B) In case of any damage to goods while in transit from to and fro to respective destination due to accident, theft, riots, strikes or any reasons there of it shall be the vendors responsibility to either process the insurance claims at his own cost to compensate the purchaser 100% of damage and there shall be no hardship to Govt. purchaser.

14. WORKMANSHIP AND MATERIAL

Workmanship executed shall be of high order. All directions and instructions (oral or in writing) on all points relative to the mode or manner of carrying out the works or as to the nature and quality of materials used or workmanship executed whenever given by the Director, Maharashtra Fire Services shall be received and complied with by the successful Bidder.

15. DELIVERY AND DELIVERY DOCUMENTS

After completion of work, free delivery of the goods should be given at the concerned ULBs/SPAs Fire Stations in `the State of Maharashtra, or as per the instructions of Purchaser without any extra cost for transportation. Delivery period should be as specified in the tender.

The successful vendor should intimate the respective Purchaser through email, telex/fax, telephone and or any other mode of communication, the details of the goods which will be delivered at the respective fire stations. These details must include:

8. Transit Insurance policy number

9. Import Documents
10. Papers related to approval from Competent Authority, if any.
11. Hydro testing papers, if any.
12. Any other invoice particular to the goods to be delivered.

16. ACCEPTANCE TEST

The Vendor, at the destination site, in the presence of authorized persons from the Purchaser or Director, MFS or its nominated officers, will conduct acceptance test of the goods delivered. The tests will involve trouble free operation of the goods under circumstances as envisaged by the Purchaser. There should not be any additional charges payable by the Purchaser for carrying out this acceptance test

17. BREACH OF CONTRACT

If any of the terms and conditions of this Tender Document or the Contract are violated or if the goods supplied by the Vendor do not meet specified standards or fail the acceptance test, the event shall amount to the breach of contract. In such an event, the Vendor shall be given a time of 30 days to cure the breach and if the breach remains uncured even after the cure period of 30 days, then the Purchaser may at its discretion terminate this Contract without assigning any reason thereof. In the event that the Purchaser terminates this Contract, without prejudice to any other remedy available to the Purchaser under this Contract or under any law, the Purchaser shall be entitled to invoke the Security Deposit and forfeit the amount as well as proceed for any other appropriate action. The Vendor shall indemnify the Purchaser of all the losses directly or indirectly occurring to the Purchaser from such breach. In case if the defect related to the equipment is cured by the Vendor during the cure period, the equipment will be accepted by the Purchaser only after complete commission and satisfactory functioning of equipment for a minimum period of 90 days. The warranty period will commence only on acceptance (based on acceptance test) of equipment by the respective purchaser.

18. OPERATIONAL TRAINING

The Vendor shall, at its own cost, train at least four users for six working days (full-time) for operation of all the equipment supplied and installed by it. The training will be as per the satisfaction of the client / end user. The Training should be carried out at the Manufacturers factory premises at the country of origin.

19. FACILITY OF AFTER SALES SERVICE

The successful Bidder shall have the facility to give after sales service in the state of Maharashtra and shall be responsible to give free service for the period of 3 years as per the maintenance schedule. This includes spares, labour, material for goods.

20. LIQUIDATED DAMAGES FOR DELAYED SUPPLY

If the Vendor fails to deliver any or all of the equipment/product or does not perform the Services within the time period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Payable Amount, as liquidated damages, a sum equivalent to one percent of the price of the undelivered goods at the stipulated rate for each week or part thereof during which the delivery of such goods may be delayed subject to a maximum limit of 20% of the stipulated price of the goods so undelivered. Such penalty is to be deducted always by the Purchaser from the bill of the Vendor.

Once the maximum of the damages above is reached, the Purchaser shall be entitled to forfeit the Security Deposit and may consider termination of the Contract. The Purchaser may agree to take another Security Deposit in the form of a bank guarantee of the 20% of the Contract value and give further extension.

21. TERMINATION FOR DEFAULT

The Purchaser may, without prejudice to any other remedy for breach of contract, by one week written notice of default sent to the Vendor, terminate the contract in whole or in part:

- e) If the vendor fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser or
- f) If there occurs serious discrepancy in supply of goods or its certification is noticed during the Contract period.
- g) If there is a breach committed or such breach is not cured by the Vendor of any of the terms and conditions of the Tender.
- h) If the Vendor goes in to liquidation voluntarily or otherwise.
- f) If the Vendor fails to perform any other obligation(s) under the Contract.
- g) If the Vendor, in the judgment of the Purchaser has engaged in a Corrupt Practice, a Fraudulent Practice, a Restrictive Practice, an Undesirable Practice and/or a Coercive Practice in competing for or in executing the Contract.

Upon termination, the Purchaser shall compensate the Vendor to the extent of works completed by the Purchaser provided that the Purchaser shall be entitled to deduct from such compensation, an amount equivalent to the losses caused to the Purchaser, any amount due from the Vendor as on the date of termination, all the damages caused to the Purchaser, etc.

22. TERMINATION OF INSOLVENCY

The Purchaser may at any time terminate the contract by giving written notice to the Vendor, if the Vendor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Vendor, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

23. FORCE MAJEURE

“Force Majeure” means an exceptional event or circumstance:

- e. which is beyond a vendors control,
- f. which such vendors could not reasonably have provided against before entering into the Contract,
- g. which, having arisen, such vendor could not reasonably have avoided or overcome, and
- h. which is not substantially attributable to the other vendor.

“Force Majeure shall mean the following exceptional events or circumstances, so long as conditions (a) to (d) above are satisfied:

- vi. war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- vii. rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war,
- viii. riot, commotion, disorder, strike or lockout by persons other than the Contractor’s Personnel and other employees of the Contractor and Sub-contractors,
- ix. weapons of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor’s use of such munitions, explosives, radiation or radioactivity, and
- x. Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

If the Vendor is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give a written notice to the other Purchaser of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Vendor became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

The Vendor shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them. Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of the Vendor to make payments if any to the Purchaser under the Contract.

The Vendor shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. It shall be the duty of the Vendor to give a written notice to the Purchaser as soon as it ceases to be affected by the Force Majeure.

The vendor shall not be liable for forfeiture of its performance security, penalty or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

24. ORDER CANCELLATION:-

The Purchaser and/or Purchaser also reserve the right to cancel the order in the

event of one or more of the following circumstances:

- (i) Serious discrepancy noticed during the pre-dispatch inspection, if any.
- (j) Delay in delivery and installation beyond a period mentioned in the Purchase Order.
- (k) Breach by the Vendor of any of the terms and conditions of the tender.
- (l) If the Vendor goes into liquidation voluntarily or otherwise.

In addition to the cancellation of Purchase Order, the Purchaser reserves the right to forfeit the Security Deposit cum Performance Guarantee submitted to the Purchaser (by the Demand Draft as well as in the form of Bank guarantee) by the Vendor.

25. RISK PURCHASE

In case, if the Vendor fails to deliver the quantity as stipulated in the delivery schedule, the Purchaser and/or Purchaser reserves the right to procure the same or similar materials from alternate sources at the risk, cost and responsibility of the Vendor.

PAYMENT TERMS:

The cost of work carried out by the Vendor shall be treated as inclusive of all taxes, duties and incidental charges and inclusive of the cost of transportation and storage etc. The part payment shall be released as under:-

- a) Payment shall be made 100% against the delivery. However an amount of 5% Bank Guarantee against the order placed by the purchaser for that respective quantity shall be kept with the purchaser till the warranted period i.e. for the period of 3 years.
- b) The Bank Guarantee be released after NOC in respect to satisfactory performance of vehicle submitted by Purchaser in the state of Maharashtra or any officer authorized by the Director, MFS

The Vendor will not be entitled to claim or make any payment against the proof of dispatch or part delivery of any item. No payment against railway or goods transport receipt through Bank will be entertained. Director, Maharashtra Fire Services will not be responsible for any delay due to loss of time in transit and the Vendor will be liable to pay compensation due to late completion of work as per terms of contract.

The successful Bidder will have to comply with the conditions given in the attached Tender Form and will have to enter into Contract for the supply work as given in the form.

Payments shall be subject to any deductions (such as TDS etc.) of any amount, for which the Bidder is liable under the agreement against the Tender.

1. **WARRANTY :-**

The complete structure & equipments provided and erected as mentioned in the tender under this Contract shall be subject to an overall performance **warrantee for a period of 36 months from the date of delivery** of Rescue Tools & Equipments & Thermal Imaging Cameras to the destination as prescribed. On satisfactory expiry of the guarantee period the security deposit paid by the Bidder shall be released.

The Vendor shall be responsible for the maintenance of the Rescue Tools & Equipments & Thermal Imaging Camera for any defects or damages to Goods due to bad workmanship or of any inferior material, accessories, apparatuses etc. The opinion of Director, Maharashtra Fire Services for the quality of workmanship and proper finish etc. shall be final.

To avoid hampering of the services the Vendors shall be responsible to attend any call for manufacturing or defect in the Goods within 48 hours however; defect should be carried out on Top Priority i.e. within 8 days failing which the Security Deposit shall be forfeited.

The warranty should cover the following:-

- 4 The equipment/product should be repaired within 03 days, failing which a replacement should be given till the machine is repaired.
- 5 The Vendor is expected to promptly attend the equipment as above. In order to provide an efficient service the Vendor must obtain the name, address, phone number & other contact details of the person in possession of the equipment. He will be required to keep this list up-to date at all times.
- 6 The Vendor will obtain written acknowledgment from the above person after each time the equipment is serviced. Such receipts will have to be produced to get the sign off for successful completion of the warranty period.

2. **FREE MAINTENANCE GUARANTEE**

Free maintenance should be done after every 3 months at the concerned fire station premises. The Vendor should give free maintenance guarantee. The maintenance should be done at the Concerned Fire Station Premises where the Goods is delivered. The Vendor should send the qualified technical person to carry out the maintenance.

The contractor shall be responsible for the maintenance of the any defects or damages to Rescue Tools & Equipments & Thermal Imaging Camera of Latest Version. Any bad workmanship or of any inferior material, accessories, apparatuses etc. The opinion of DIRECTOR, FIRE & EMERGENCY SERVICES for the quality of workmanship and proper finish etc. shall be final.

To avoid hampering of the services the contractors shall be responsible to attend any call for manufacturing or defect in the Rescue Tools & Equipments & Thermal Imaging Camera within 48 hours however; defect should be carried out on Top Priority i.e. within 8 days failing which the Security Deposit shall be forfeited.

3. REPEATED FAILURE

During the warranty period, if any equipment has any failure on two or more occasions it shall be replaced with new equipment by the Vendor at no cost to the purchaser.

- 4. Onsite Training:** - Training Schedule & Module, should be submitted by the Vendor for actual operation of the system. Minimum 6 days on site training should be given to the actual users of the goods. Users will be nominated by the Purchaser

5. PENALTY FOR DOWNTIME

Any equipment that is reported to be down should be either fully repaired or replaced by the Vendor with temporary substitute within 48 hours (inclusive of Public Holidays). The reporting will be through a telephonic message or any other mode as the Purchaser may decide.

In case Vendor fails to meet the above standards of maintenance, there will be a penalty of Rs. 2000 per day per set.

In case the equipment / goods is not repaired within a period of another 48 hours, the penalty will be charged at 5 (Five) times of the penalty shown above.

The temporary substitute machine or equipment should be replaced by the original machine or equipment duly repaired within 72 hours, failing which the above penalty will be imposed for the number of days exceeding one week. These penalty charges will be deducted from the performance guarantee.

6. PROTECTION AGAINST RISK OF OBSOLESCENCE

Vendor will make available the spare parts for the systems available for a minimum period of ten years from the date of the delivering of items prescribed under the RC.

7. INDEMNITY

The Vendor shall indemnify, defend and hold harmless the Purchaser and its respective officers, directors, employees, representatives and agents ("Indemnified Parties"), from and against any and all suits, actions, liabilities, legal proceedings, claims, demands, losses, costs and expenses of whatsoever kind or character, including without limitation, reasonable attorneys' fees and expenses, for injury or death of third parties or loss of or damage to property of third parties or any other loss or damage caused to the Indemnified Parties, whether direct or indirect, arising as a result of or in connection with (i) any failure on the part of the Vendor to perform its obligations under the Contract or the Tender Document, (ii) any breach on the part of the Purchaser of terms, conditions, representations or warranties under the Contract or the Tender Document, (iii) any negligent acts or omissions or willful misconduct by the Vendor or anyone acting on Vendor's behalf or (iv) any violations of safety procedures, prescribed by the Purchaser or

any Law or any Government Authority, by the Vendor or its employees, agents, representatives or independent contractors or (v) any faulty goods, goods or services provided by the Vendor (vi) any infringement of any patent, trademarks, copyrights or any other Intellectual Property Rights or statutory infringements in respect of all the products supplied by the Vendor.

8. PUBLICITY

Any publicity by the Vendor in which the name of the Purchaser is to be used should be done only with the explicit written permission of the Purchaser.

9. SUBCONTRACTING AND ASSIGNMENT

The Vendor shall, without the prior written consent of the Purchaser, neither subcontract nor assign whole or any part of its obligation under this Contract.

10. RELATIONSHIP WITH THE PURCHASER

The relationship between the Vendor and the Purchaser is strictly contractual in nature and no condition under the Tender Document or the Contract shall lead to the inference of a relationship in the nature of an Employer and an Employee. It is further agreed that the Purchaser shall, under no circumstances, have any relationship of whatsoever nature with the employees, directors, representatives, etc. of the Vendor and shall not be liable in any way to them.

11. RESTRICTIONS OF THE RATE CONTRACT

The Vendor warrants that the price at which he has agreed to provide its goods and services to the Purchaser under the Contract is the lowest price and this lowest price quoted by the Vendor shall become the Rate Contract price. The Vendor warrants that he shall not quote a price below the Rate Contract, for goods and services of similar specification, to procure any other Government Tender. The Vendor also warrants that he shall abide by the guidelines for Rate Contract. If the Vendor violates the terms of this Clause of the Rate Contract, he shall be barred from participating in any future Bidding Process of any Government and the Purchaser if it thinks fit shall proceed to terminate the such default Contractor without any compensation to the Vendor. The Purchaser shall also forfeit the Security Deposit. The decision in this matter of The Director, MFS shall be final.

12. RESOLUTION OF DISPUTES

The Purchaser and the Vendor shall make every effort to resolve if any dispute amicably, by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract.

If after thirty days from the commencement of such informal negotiations, the Purchaser and the Vendor have been unable to resolve the dispute amicably, either party (not being MFS) may require that the dispute be referred for resolution to the Director, MFS, Government of Maharashtra. In case a party to the dispute is MFS, if the dispute is not settled amicably within thirty days, the

same shall be referred to the Secretary UD-2, Government of Maharashtra whose decision will be final and binding on both the parties.

All questions, disputes or differences arising under and out of, or in connection with the Contract, shall be referred to the Director, MFS Government of Maharashtra. In the case of dissatisfaction or non-acceptance by any of the Parties of the decision given by the Director, MFS, Government of Maharashtra, the matter shall be referred to the **Secretary UD-2, Government of Maharashtra** whose decision will be final and binding on both the parties.

13. LEGAL JURISDICTION

This Contract and the Tender shall be governed by the laws of India and all the disputes arising out of or related to this Tender or the Contract shall be subjected to the jurisdiction of the appropriate courts at Mumbai only.

SPECIAL CONDITIONS OF CONTRACT

1. The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General conditions is indicated in parentheses.

3. **Country of Origin:**
All member countries of the World Bank, Switzerland, Taiwan and China, European Countries, Japan etc.

4. **Performance Security:**
The Performance Security shall be in the amount of 5% of the contract price.

5. **Inspection and Tests :**
The following inspection procedures and tests are required:
 - a) Inspection of Goods before delivery at the factory premises of supplier in case of indigenous goods.
 - b) Inspection of Goods before shipment at factory premises of supplier, in case of foreign goods.
 - c) The inspection will be carried out by DIRECTOR, MFS or his authorized representatives or the Purchasers as the case may be

6. **Delivery and Documents:**
 - a) **For Imported Goods:** Upon shipment, the Supplier shall notify the Purchaser and the Insurance Company by cable or telex the full details of the shipment including contact number, description of Goods, quantity, the vessel, the bill of lading number and date, port of loading, date of shipment port of discharge, etc. The Supplier shall mail the following documents to the Purchaser, with a copy to the Insurance Company.
 - i. Three copies of the Supplier's invoice showing Goods description, quantity, unit price total amount;
 - j. Original and duplicate copies of the negotiable clean, on-board bill of lading marked freight prepared and two copies of non-negotiable bill of lading;
 - k. Three copies of packing list identifying contents of each package;
 - l. Valid Insurance Certificate; in triplicate.

- m. Manufacturer's /Supplier's guarantee certificate;
- n. Three copies of Inspection certificate, issued by the nominated inspection agency and the supplier's factory inspection report; and
- o. Certificate of origin ' in duplicate.
- p. Certificate from Shipping Company showing that vessel is of conference liner Lloyds approved and age of the vessel is not more that 25 years.

The above documents shall be received by the Purchaser at least one week before arrival of goods at the port and if not received the Supplier will be responsible for any consequent expenses.

Telephonic instructions shall be sent to the consignee, immediately the goods are booked and the above documents shall be sent to the Purchaser by registered mail on the same day.

7. **Insurance:**

The insurance shall be in an amount equal to 110% of the total of CIF/F.O.R. value of the goods from "Manufacturers Warehouse to the final destination , i.e. Purchasers Fire Station as specified by the Purchaser " on "**All Risks**" basis including Theft, Accidents, war risks and strike clauses, etc..

8. **Incidental Services :**

The following services covered under clause 13 shall be furnished. The cost should be included in the contract price:

- a) Performance and supervision of on-site assembly and start-up of the supplier goods.
- b) Furnishing of tools required for assembly and maintenance of the supplied goods.
- c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods.
- d) Performance supervision maintenance and repairs of the supplied goods for a period agreed by the parties provided that his service shall not relieve the supplier of any warranty obligations under this contract.
- e) Conduct training of the purchaser's personnel, at the Supplier's plant and on-site in assembly start-up, operation maintenance and repair of the supplied goods.

9. **Spare Parts:**

Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares such as gaskets, plugs, washers, belts etc. other spare parts and components shall be supplied as promptly as possible but in any case within month of placement of any warranty obligations under the contract.

10. **Warranty:**

The Warranty period shall be 36 months from the date of supply and commissioning of equipment to the purchasers_Fire Service.

11. **Terms of Payment :**

The terms of payment both for Foreign and domestic supplied are more or less similar. However, the documents to be submitted in the two cases may be slightly different as enumerated below:

Foreign Supply:

- i) Ninety (90) percents of the Contract price shall be paid on presentation of:
 - a) A copy of the bill of lading and Insurance policy;
 - b) The Contractor's detailed invoice and test certificate
 - c) A detailed packing list:
 - d) A certificate of origin.
 - e) Inspection report duly signed by the nominated agency.
- ii) Balance 10% will be paid after commissioning of vehicle at the final destination, i.e. MFS Fire Station Specified by the DIRECTOR, MFS, MFS and completion of training.
- iii) The payments will be made in the currency of the tender or the currency of the country of origin of goods and services as defined in the instruction to Tenders.

Method: Payment by the Purchaser will be made by opening an irrevocable letter of credit through the Bank in Maharashtra in favor of the Contractor.

The payment will be made on "Deferred payment" basis for a period of five years. In case of foreign goods offered on "Deferred payment" basis, the terms of payment shall be acceptable without foreign exchange fluctuation vis a vis Indian rupees the details of "Deferred payment" scheme shall be given in the offer separately.

12. **Settlement of dispute:**

- 12.1 If any dispute or difference of any kind whatsoever (other than those in respect of which the decision of any person is by the contract, expressed to be final and binding) shall arise between the DIRECTOR or any other officers and contractor in connection with/or arising out of the Contract for carrying out of the works (whether during the progress of the termination, abandonment or breach of the Contract) it shall in the first place be referred to and settle by the DIRECTOR who within a period of 90 days after being requested by either party to do so shall give written notice of his decision to the Contractor. Save as herein provided such provided such decision in respect of every matter so referred shall be final and binding upon both parties until the completion of work, and shall forthwith be given effect to by the Contractor who shall proceed with the works with due diligence whether he requires arbitration as hereinafter provided or not. If the DIRECTOR has given written notice of his decision to the Contractor and no claim to arbitration has been communicated to him by the Contractor within a period of 90 days from receipt of such notice the said decision shall remain final and binding upon the Contractor.
- 12.2 If the DIRECTOR shall fail to give notice of his decision as aforesaid within a period of 90 days after being requested as aforesaid, or if the Contractor be dissatisfied with any such decision, then and in any such case the Contractor may within 90 days after receiving notice of such decision or within 90 days after the expiration of the first named period of 90 days (as the case may be) require that the matter or matters in dispute be referred to arbitration as hereinafter provided. All disputes or differences in respect to which the decision (if any) of the DIRECTOR has not become final and binding as aforesaid shall be finally settled by arbitration as follows:
- i) By a single arbitrator agreed upon by the parties or failing agreement upon such an arbitrator:
 - ii) by three arbitrators one to be appointed by the Corporation another by the Contractor and the third by the President of the Institution of Engineers, India, If either party fails to appoint an arbitrator then the other party may request the President of the International Chamber of Commerce or the President of the institution of Engineers (As the case may be) to make such appointment.
- 12.3 The arbitration shall be conducted in accordance with the Rules and Procedures for Arbitration of the International Chamber of Commerce, in the case of a Group-C Contractor and in accordance with the provisions of the Arbitration Act 1940 or any statutory modification thereof.

12.4 The decision of the arbitrator or the majority of the arbitrators shall be final and binding upon the parties hereto and the expense of the arbitration shall be paid as may be determined by the arbitrator or arbitrators. The said arbitrator or arbitrators shall have full power to open up review and revise any decision opinion, direction certificate or valuation of the DIRECTOR and neither party shall be limited in the proceedings before such arbitrator or arbitrators to the evidence or arguments put before the DIRECTOR for the purpose of obtaining his said decision. No decision given by the DIRECTOR in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator or arbitrators on any matter whatsoever relevant to the dispute or difference referred to the arbitrator or arbitrators as aforesaid.

13. Notices :

For the purpose of all notices the following shall be the address of the Purchaser and Supplier :

Purchaser:

The DIRECTOR (MFS)
Maharashtra Fire Services
Maharashtra,
INDIA

Supplier:

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14 DIRECTOR's Representative:

The duties of the representative of the Director Or Purchasers are to check, inspect and supervise the work and to test and examine any material to be used to workmanship employed in connection with the works. He shall have no authority to order any extra work involving any extra payment by the Corporation nor to order any Variation in the Works, unless approved or directed by the Director.

However, he shall perform the following duties:

- 1) Furnishing of drawings and information to the Contractor
- 2) Approving of Contractor's drawings subject to post-facto approval and signature of the Director.

- 3) Recommending and approving the interim Certificates, taking over certificate and final certificate after thorough checking and inspection.
- 4) Recommending extra works required and extension of time after taking necessary approval from Director

Failure of the Representative of the Director to disapprove any work or material shall not prejudice the power of the Director thereafter to disapprove such work or material and to order removal or modification thereof.

If the contractor shall be dissatisfied with any decision of the Representative of the Director he shall be entitled to refer the matter to the Director who shall thereupon confirm, reverse or vary such decision as deemed fit.

15. Programs to be furnished:

The time allowed for execution of supply and delivery of the plant shall be the essence of the contract. The contract period shall commence from the date of intimation of acceptance of the tender. The contractor at the time of submitting his tender shall enter in the Delivery Schedule, the total time required to manufacture, test, load, transport and deliver the plant.

16 Discrepancies in Specifications:

The tender specifications are to be considered as actually explanatory. **Variation in the specifications/ requirements of Plus - Minus 5% to 10% may be accepted** , if any discrepancies however, arise as to the meaning and import of the said specifications or the quality of the material for the due and proper supply of goods/equipments or as to the measurement or quality or valuation of the goods/equipment supplied under the Contract, or as extra thereupon the same shall be explained by the DIRECTOR, MFS, and his explanation shall, subject to the final decision of the DIRECTOR in case a reference be made to him, be binding upon the Contractor and the contractors shall supply the goods/equipments according to such explanation (subject as aforesaid) and without addition to or deduction from the contract and shall also do all such works and things necessary for the proper supply of the goods/equipments as implied by specifications, even though such works and things are not specially shown and described in the specifications.

17. Inspection and Taking Over:

Within one month of the date of receipt of the plant at the designated destination and after visual inspection, the purchaser will issue a taking over certificate in which the corporation will certify the date on which the vehicle has been so accepted. The taking over of vehicle found defective due to faulty design or workmanship or damage due to defective packing or otherwise not in conformity with the requirements of the Contract fails to be withheld until such time as the defects have been corrected. If the Contractor fails to make good any defects, the DIRECTOR may take at the cost of the Contractor such steps as may in all the circumstances be reasonable to make good defects. The issuance of taking over certificate shall in no way relieve the contractor of his responsibility for the satisfactory operation of the vehicle in terms of the specification.

21 Extension of Time:

If the completion or supply of plant is delayed due to reasons beyond the control of the Contractor, the contractor shall without delay give notice to the DIRECTOR in writing of his claim for an extension of time but shall nevertheless use constantly his best endeavors to prevent or make good any delay and shall do all that may be reasonably required to the satisfaction of the DIRECTOR to execute the work.

Requests for an extension of time to be eligible for consideration shall be made by the contractor in writing within 14 days of the happening of the event causing delay. The Contractor may also if practicable, indicate in such a request the period for which the extension is required.

In any such case the DIRECTOR may give a fair and reasonable extension of time for completion of individual items or groups of items of work for which separate periods of completion are specified in the Contract or the Contract as a whole. The decision of the DIRECTOR in regard to the extension will be communicated to the Contractor in writing within a reasonable time.

22 Defects:

The Contractor shall be responsible for making good with all possible speed any defects arising from defective designs (other than a design made, furnished or specified by the Corporation and for which the Contractor has disclaimed

responsibility in writing within a reasonable time after the receipt of the DIRECTOR's instructions) materials or workmanship or from any act or omission of the Contractor that may develop under the any portion thereof during the period of Maintenance.

If such defects shall occur the DIRECTOR shall inform the Contractor thereof stating in writing the nature of the defect. If the Contractor replaces or renews any portion of the Goods the provision of this clause shall apply to the portion of the Goods so replaced or renewed as if that portion has been taken over on the date of replacement or renewal.

Save as in this clause expressed the Contractor shall be under no liability in respect of the said defects after the Goods have been taken over.

The Contractor shall if required by the DIRECTOR in writing, search for the cause of any defect, imperfection or fault under the direction of the Engineer. Unless such defects, imperfections or faults shall be one for which the contractor is liable under the contract the cost of the work carried out by the contractor in searching as aforesaid shall be borne by the Corporation. But if such defect, imperfection or fault shall be one for which the Contractor is liable as aforesaid the cost of the work carried out in searching as aforesaid shall be borne by the Contractor, and he shall in such case repair rectify and make good such defect, imperfection or fault at his own expense in accordance with provision of this clause.

If any defects be not remedied within a reasonable time, the DIRECTOR may: -

- a) At his option replace or rectify such defective goods and recover the extra cost so involved from the Contractor plus fifteen percent; or
- b) Terminate the contract for default as provided under clause 3 (Contractor's default) ;
- c) Acquire the defective goods at a reduced price considered equitable under the circumstances.

20. Overpayment and Underpayment:

Whenever any claim for the payment of a sum to the Corporation arises out of or under this contract against the Contractor the same may be deducted by the Corporation from any sum then due or which at any time thereafter may become due to the contractor under this contract and failing that under any contract with the Corporation or from any other sum due to the contractor from the Corporation

(which may be available with the Corporation) or from his retention money, or he shall pay the claim on demand.

The Corporation reserves the right to carry out post payment audit and technical examination of the final bill including all supporting vouchers abstracts etc. The Corporation further reserves the right to enforce recovery of any overpayment when detected notwithstanding the fact that the amount of the final bill may be included by one of parties as an item of disputes before an arbitrator appointed under clause - **Arbitration** of this Contract notwithstanding the fact that the amount of the final bill figures in the arbitration award.

If as a result of such audit and technical examination any overpayment is discovered in respect of any work done by the Contractor or alleged to have been done by him under the Contract it shall be recovered by the Corporation from the Contractor by any or all the methods prescribed above or if underpayment is discovered the amount shall be duly paid to the Contractor by the Corporation.

Provided that aforesaid right of the Corporation to adjust overpayment against amounts due the Contractor under any other Contract with the Corporation shall not be extended beyond the period of two years from the date of payment of the final bill or in case the final bill is a "minus" bill from the date that amount payable by Contract under "minus" bill, is communicated to the Contractor.

Any amount due to the Contractor under this Contract for underpayment may be adjusted against any amount then due or which may at any time thereafter become due before payment is made to the Contractor, from him to the Corporation on any other contract account whatsoever.