

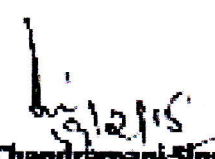
GOVERNMENT OF MANIPUR
FIRE SERVICE DEPARTMENT

TENDER NOTICE

Imphal, the 19th February, 2015.

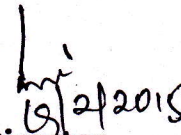
No.1/3/ESTT/2014-FS/ : Sealed Tenders superscribed with the words in red ink on **"TENDER OF FIRE EQUIPMENTS"** due on 14.03.2015 for fabrication of Mini Rescue Tender, Mini Hazmat Van, Fire Safety Mobile Awareness/Educational Van and Inflatable Motor Rescue Boats are invited from the reputed firms as required by the Manipur Fire Service Department. Tenders should reach the Office of the undersigned on or before 13.03.2015.

The details of Fire Appliances/Equipments and other details along with Terms & Conditions of the Tender shall be obtainable from the office of the undersigned on weekdays & normal office hours and on request of the same can be seen in the office of the **SENIOR RESIDENT COMMISSIONER** and the **JOINT RESIDENT COMMISSIONER**, Manipur Bhavan Govt. of Manipur located at New Delhi -21, Kolkata -20 & Deputy Resident Commissioner Guwahati Manipur Bhavan, Rajgarh Road, Guwahati -781003 and may also download from the website of www.manipur.gov.in


(Kh. Chandramogol Singh)IPS
Director,
Manipur Fire Service,
Imphal

LIST OF FIRE APPLIANCES/EQUIPMENTS ETC.

1. Mini Rescue Tender (12 ton, fully equipped with advance rescue equipment and appliance) on LPT1613TC BS-III, COWL ERGO PACK (Power Steering).
2. Mini Hazmat Van (12 Ton).
3. Fire Safety Mobile Awareness/Educational Van(12 Ton) and
4. Inflatable Motor Rescue Boats along with synthetic Life Jackets, Life Buoys, Personal diving kits, Dive fins, Gloves, BA Sets light weight with spare cylinders, Diving suits and Under water torch etc.


19/2/2015
Director,

Manipur Fire Service,
Imphal

--

**SPECIFICATION FOR MINI RESCUE TENDER (12 TON FULLY
EQUIPPED WITH ADVANCE RESCUE EQUIPMENT AND APPLIANCE)
FOR FIRE SERVICE USE AT ITEM NO.1 IN ANNEXURE -I**

GENERAL :

Mini Rescue Tender shall be fabricated on a 12 Ton GVW Truck Chassis Model TATA LPT 1613 TC BS-III, COWL ERGO PACK (Power Steering) Chassis will be supplied by the fabricator.

1. BODY WORK:

- 1.1 Enclosed accommodation for driver, officer in charge & 5 men would be provided in the double compartment drivers cab.
- 1.2 The driver's seat will be adjustable type. All seats would have foam cushions will be covered with good quality rexine.
- 1.3 The crew seat shall have individual seating for the crew, fitted with brackets for placement of Breathing Apparatus in an upright position.
- 1.4 The seats shall be of HO Bostrom make or equivalent & shall be of the wear & walk away type so that when the crew disembarks from the vehicle the BA sets should easily come off the seats with them.
- 1.5 The seat bottom will be theater type, which will automatically flip up when the fireman gets up, thereby freeing up the space for easy embarking & disembarking.
- 1.6 The cabin would be internally lined with a good quality carpeting material/vinyl/PVC coated aluminum sheets.
- 1.7 The entire structure of the appliance including that of the driver's cab will be welded structure made from MS pressed sections & square tubes of **2mm/1.6mm** thickness.
- 1.8 Angles & channels used for the structure shall be min 3mm thick. Proper anti corrosive treatment should be done to the complete structure material by **ZINC PLATING** and thereafter the complete structure should be **EPOXY** painted.
- 1.9 The outer paneling will be done from **3 mm** thick aluminium sheet & Internal paneling will be done from **2 mm** thick aluminium sheets or chequered plates.
- 1.10 The complete internal cabin floor & top of the rear superstructure compartment would be covered with **2 mm** aluminium chequered plates. The doors on either side will be fitted with safety glasses and winding type regulators.
- 1.11 The shape of the cabin shall be totally aerodynamic as per the latest design (Illustrative drawing enclosed).
- 1.12 The tenderer must submit detailed drawing of the vehicle having aerodynamic cabin along with the offer failing which the offer will be rejected outright.
- 1.13 Front windshield will be placed as low as possible to provide the driver with clear visibility of traffic directly in front of the vehicle & will be curved to give better vision on the sides & aerodynamic efficiency with a better overall appearance.

- 1.14 The driver will be provided with large size rear view mirrors on both sides of the cab & convex round mirrors for overall rear view of the vehicle from top to bottom & left to right.
- 1.15 The doors of the lockers below the chassis level will have concealed type of hinges will be strong enough to take the weight of min. 2 persons & attached with heavy duty chains to enable it to be used as a platform for standing.
- 1.16 The complete rear body will be separate from the driver's cabin & min.50-60mm space will be maintained between the driver's cabin and the rear body.

2. **LOCKERS:**

- 2.1 Minimum three numbers of lockers shall be provided at both the sides and one locker at the rear body for keeping all the accessories and equipments.
- 2.2 The lockers shall be arranged in such a manner that the load distribution shall be equal on both the sides. The lockers should be provided with drawers as per the latest international standards i.e. **ROLL IN-ROLL OUT** type with opening in tapered position, vertical hinged walls, vertical slides etc giving very easy & immediate access to all equipments.
- 2.3 All equipments should be stowed very scientifically & systematically in the drawers & each piece of equipment shall have its designated location so that at the time of emergency the required equipment can be very easily located & removed for use. Location of equipment (labels) should be provided on each drawer for immediate identification.
- 2.4 All the equipment should be properly clamped and strapped in the drawers to prevent shifting of the equipments while the vehicle is in motion. The drawers shall be totally constructed from steel/ Aluminium sheets/Plastic trays & shall have self-locking system to prevent accidental opening while the vehicle is in motion. The bottom edges of the drawers shall be covered with SS angles. The **ROLL IN-ROLL OUT** drawers should be made according to the required size of the equipment that is to be stowed. The drawer floor shall be covered with good quality rubber sheets or PU sheet of 5mm thick.
- 2.5 The lockers shall be covered with **ALUMINIUM ROLLER SHUTTERS**. The Aluminium shutters should be made of extruded Aluminium sections properly anodized or powder coated The shutter should be roller or sliding type. The opening of the shutters should be done by means of a lift bar provided. This should be of the self locking type so that while the vehicle is moving, the shutters do not open accidentally.
- 2.6 The lockers shall be divided into compartments and shelves as per the requirement. The final design will be decided at the time of approval of drawing.
- 2.7 The Aluminium shutters shall be provided with suitable sealing to avoid ingress of water, dust, and humidity.
- 2.8 Footboard shall be provided in the lower part of the body in order to provide easy access to all the equipments installed in the higher lockers. The footboards shall also serve as a closer for the lower part of the storage locker. The folding footboard shall be provided at the rear wheels.

3. ACCESSORIES & ELECTRICAL FITTINGS:

The following accessories and fitting will be provided on the appliance at suitable location.

1.	Electronic siren -100 w Grand make.	01 No.
2.	Spot lights 6" dia 24 Volt Halogen	02 Nos.
3.	Fog lamps 6" dia 24 Volt Halogen	02 Nos.
4.	Two Blue Lights with flasher shall be fitted on top of Driver cabin Grand make.	02 No.
5.	Auto operated reversing halogen lights	02 Nos.
6.	Latest design 36' emergency light bar with two tone hooter with PA system GRAND make.	01 Set
7.	Tools - All tools required for normal routine maintenance of the appliance, which are not included in the kit for the chassis;	
8.	Search light - One, adjustable to give flood or beam light and shall be mounted in convenient position on the appliance but at the same time, shall be capable of being readily removed and mounted on tripods away from the appliance. It shall be supplied complete with tripod and not less than 30 m of TRS cable on reel mounted on the appliance;	
9.	Quick removable type wire mesh guard made from 25x25mm size MS wire mesh of 1.60 mm covered in MS angle frame shall be provided to all the glasses of driver-cum-crew cabin	

4. TELESCOPIC LIGHT MAST:

- 4.1 A compact, low profile, roof mounted lighting system, with 4x1000 Watt Halogen lamps, pneumatically elevated to extend 4.5 Mtrs from roof top, capable of taking power from the vehicle directly, & capable of operating on 12 as well as 24 volts DC will be provided.
- 4.2 It shall have a dual tilt remote controlled positioner, with rotation & tilt lamps to provide a total coverage of the accident area. The remote control unit should allow a person to operate all functions of the mast & accurately aim for complete directional positioning.
- 4.3 In addition there shall be a one button command to automatically retract the mast, turn out the lights & stow the entire system to the compact transport position.
- 4.4 The mast will have a tilt angle of not less than 345 degrees & a pan angle of not less than 335 degrees.
- 4.5 The time taken for full extension shall not exceed 60 seconds. The mast shall be capable of handling wind speeds of 110 kmph & have an integrated saddle installation to prevent misfit.
- 4.6 A look up light will be integrated into the light mast itself for knowing the exact location of the mast & reducing chances of damage as well as injury.
- 4.7 Suitable locking mechanisms to protect the mast will be provided in the casing. Connections for taking power supply from the generator set through internal spiral wire would be provided.
- 4.8 The controller shall have a message display showing all functions & the weight including head & saddle shall not exceed 70 kgs. The mast shall be of Night Scan, Fireco, Brimotor, Federal Signal, or Will Burt make only.

5. WINCH:

- 5.1 **IMPORTED** electrically/battery operated cable winch of min. **08 tons** capacity should be provided. The winch unit should be complete with minimum 5.5 hp 12v DC series wound electric reversible motor for increased pulling power, 3-stage planetary gear system design for fast line speed.
- 5.2 Automatic load-holding brake for strength and reliability. Easy to use and verify engagement resistant fully integrated solenoid assembly, wireless remote and a 90 ft. (27.4) of 7/16" (11 mm) 6x25 galvanized EIPS wire rope with replaceable self locking clevis hook Ramsey make or equivalent.

List of Accessories / Equipments to be carried on the MiniRescue Tender

Sl.No.	Item	Quantity
(1)	(2)	(3)
1.	Breathing apparatus, open circuit positive pressure type with cylinder made of carbon composite material, having water capacity of 6 ltrs, 300 bar, 45 mnts duration, back plate, face mask, lung demand regulator, pressure reducer complete with harness with spare cylinder	6 sets
2.	Chemical Protective suits "A" type	4 nos
3.	Chemical Protective suits 'B' type	4 nos
4.	NBC suit	2nos.

	(5) Item	Quantity
5.	Fire entry suit	2 nos
6.	Fire proximity suits - The suit should be a two piece design (Jacket & Trouser) garment and should have an outer layer made of Inherent FR material followed by a Moisture Barrier and Thermal Liner (three layers minimum). It should have FR reflective tape on both garments for reflection in dark / smoky environment. Should be CE marked and certified to EN-469 standard. Should be supplied complete with a Multi Layer Fire Fighter Gloves CE marked and certified to EN659 standard; a Balclava Style Hood made of Inherent FR material - CE marked and certified to EN13911 standard; A pair of Fire Fighter Gum Boots made of FR Rubber or Leather with pull-up loops, Steel Toe, Mid-Steel Sole. Boots should be CE marked and Certified to EN-345-2 standard; A Fire Fighter Helmet with visor and Neck Protector, CE marked and Certified to EN-443 standard.	2 nos
7.	Paratech rescue kit PRT	1 set
8.	Hazmat First Responder kit (HFR)	1 set
9.	Oxy-acetylene cutting set, complete with 5 l cylinders or equivalent and 10 m lengths of tubing, portable or trolley mounted	1 set
10.	Oxygen cylinder, spare	1
11.	Gauges for oxy-acetylene cutting plant, spare	1
12.	Leather gloves	2 pairs
13.	Goggles dark glasses	4 pairs
14.	Chain tackle 2 tons (Chain pulley block)	1 set
15.	Tarpaulin 12 ft X 12 ft	2 nos.
16.	Pulling and lifting machine, lifting 3 tonnes or pulling 5 tonnes and hook	1set
17.	Portable, electrically operated, circular saws, 220 - 250V, single phase min 2500 W, 4500 RPM, with Disc Diameter max - 300 mm [12"], Arbor size - 22.2 mm, Weight - not more than 12kg, With soft start technology built in within electronic control box, Diamond Tip Blade of 12ll dia, 5000 RPM, Arbor size - 22.2 mm, Thickness - 3.5mm - 2 Nos and Composite Blade of 12ll dia 5000 RPM, Arbor size - 22.2 mm, Thickness - 3.5mm with a set of 5 blades having capability of cutting various material such as Rails, Aircraft alloys, vehicle panels, metal roller doors, wooden frames, etc.	1 nos
18.	Portable, electric drill with different size drill bits from 1mm to 12 mm, single phase, 220 V with 3 mtrs long electrical cable with plug.	1 set
19.	Engineer's tools kit	1 set
20.	100 ft long 16 mm dia BOB rope	2 lengths
21.	40 ft long 12 mm dia BOB lashing lines	2 lengths
22.	20 ft long 10 mm dia BOB rope	1 length

SLNo.	Item	Quantity
23.	100 ft long 5/8ll dia wire rope	1 length
24.	Hardwood blocks, assorted, from 75 to 225 mm thick and 300 mm	6 nos
25.	Spades (see IS 2238:1979)	2 nos
26.	Shovel (see IS 274(Part 1 and 2):1981)	4 nos
27.	Mattocks, handle	2 nos
28.	Picks, with handle (see IS 273:1973)	6 nos
29.	Axes, felling (see IS 703:1966)	4 nos
30.	Crow bars, 1 m long (see IS 704:1968)	4 nos
31.	Sledge hammer 10 kg (see IS 841:1968)	2 nos
32.	Hammer, 5 kg (see IS 841:1968)	2 nos
33.	Rake, 3 prong (see IS 5991:1971)	2 no
34.	Rubber, gloves tested to 25,000 volts (see IS 4770:1968)	2 pair
35.	Shears, bolt cropper, large with handle, 900 mm	2 pair
36.	Shears, bolt cropper, small with handle 600 mm	2 pair
37.	Fire mans Axe with carrying pouch	2 nos
38.	Electric drill with spare bits Battery operated 2 mm to 10mm (rechargeable)	1 no.
39.	Circular saw with diamond blade, Power consumption - 1750 W Voltage - 230 V, RPM - 3400, Light in weight not more than 7.5kg Automatically adjustable blade guard, Required accessories and electrical cord of about 3 mtrs, Circular Saw Carbide Tip Blade, Dia - 235mm / Arbor - Compatible to circular saw suitable RPM - 5500 to 6000 / Thickness - 2 to 4mm - 2 Nos , Provision of expansion slot .	1 no.
40.	Chipping Hammer impact,rate - 0-1400per/Min. Single impact force -38 -42 J min. Power input -1240 Watt, single phase 230 volts, Light in weight , shock proof body with required accessories, Less than weight 18 kg,With pointed and flat bit	1 no
41.	Smoke blower & exhauster Exhaust pipe - 300 mm dia. flexible of 5 meter long. Motor 0.75 HP 2200 RPM, single phase, 230 volt. It should work on both side one for throwing Air out & other is for sucking the Air in from out side. Flexible pipe should be foldable type with wire core made from abrasion resistant material. The close size 1 meter max. and the extended size shall not be less than 5 meter. preferable yellow or any other bright colour.	1 no.
42.	Electrically operated chain saw, Power consumption - 1600 W minimum, Voltage - 220 - 250 V, Amperage - 7 Amp [Approx], Guide Blade Length - Arm length - 18 inches minimum, Light weight, shock proof body, reservoir for lubricating for chain. With required accessories and electrical cord, Chain with 34/36 numbers of cutting tips. Compatible with chain saw of 18 inch. Guide bar, chain should be in closed ring	2 nos

Sl.No.	Item	Quantity																									
	form - 2 Nos																										
43.	Petrol engine operated chain saw, min. 94 CC, 2 stroke petrol driven IC engine, max. of load engine speed 9800 rpm +/- 300, 4.5 KW (6.1hp) power, min, Trigger, trigger lock and safety inter lock must be provided, Chain Saw with fast start segment design having min. 350mm deep cutting capacity., Fuel Tank Capacity - 1liter, Should be capable of cold manual pull cord start, Should be provided with choke arrangement, Cutting depth 390mm, Weight not more than 12 kg with chain & bar, Guide bar length 18" min, Chain of 32 segment, sealpro, with ELC 45 grade.with Spare Chain- 2 nos.	1 no.																									
44.	Concrete Breaker having power input of not more than 1400 W, Impatc rate 42 joules, full load impact 1400 / min, bit shank size 30 mm hexagonal, weight not more than 17 kgs with accessories like carrying case, bull point and hexagn bar wrench m8 size.	1 no.																									
45.	Petrol engine operated Portable generator 5 kva	1 no																									
46.	High pressure pneumatic lifting bags, working pressure 8 bar, made of Kevlar reinforced nitrile rubber with 3 layers aramide reinforcement, non slip design, Blue colour, capable of being interlocked when 2 bags are placed on top of each other, quick connection with automatic double locking system, centering cross on both sides, reflecting labels, CE-icons for safety insertion thickness not more than 25 mm including profile, resistant to ozone and range of chemicals etc of the following capacities :-	1 set																									
	<table border="1"> <thead> <tr> <th>Lifting capacity</th> <th>Min. Inflation height (mm)</th> <th>Min dimensions (mm)</th> <th>Weight (not more than) kg</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>10 tons</td> <td>200</td> <td>375 x 375</td> <td>4</td> <td>1 no</td> </tr> <tr> <td>20 tons</td> <td>275</td> <td>500 X 500</td> <td>7</td> <td>1 no</td> </tr> <tr> <td>40 tons</td> <td>400</td> <td>700 x 700</td> <td>16</td> <td>1 no</td> </tr> <tr> <td>67 tons</td> <td>500</td> <td>900 x 900</td> <td>25</td> <td>1 no</td> </tr> </tbody> </table>	Lifting capacity	Min. Inflation height (mm)	Min dimensions (mm)	Weight (not more than) kg	Quantity	10 tons	200	375 x 375	4	1 no	20 tons	275	500 X 500	7	1 no	40 tons	400	700 x 700	16	1 no	67 tons	500	900 x 900	25	1 no	
Lifting capacity	Min. Inflation height (mm)	Min dimensions (mm)	Weight (not more than) kg	Quantity																							
10 tons	200	375 x 375	4	1 no																							
20 tons	275	500 X 500	7	1 no																							
40 tons	400	700 x 700	16	1 no																							
67 tons	500	900 x 900	25	1 no																							
	The airbags are to be supplied with the following accessories																										
	<table border="1"> <tbody> <tr> <td>Pressure reducer 300 bar to 8 bar</td> <td>2 nos</td> </tr> <tr> <td>Control box for operating 2 airbags with pressure gauges ad carrying strap</td> <td>2 nos.</td> </tr> <tr> <td>Single control unit</td> <td>4 nos</td> </tr> <tr> <td>Air Hose 5 mtrs</td> <td>2 nos</td> </tr> <tr> <td>Air hose 10 mtrs</td> <td>2 nos</td> </tr> <tr> <td>Shut off hose with safety valve</td> <td>4 nos</td> </tr> </tbody> </table>	Pressure reducer 300 bar to 8 bar	2 nos	Control box for operating 2 airbags with pressure gauges ad carrying strap	2 nos.	Single control unit	4 nos	Air Hose 5 mtrs	2 nos	Air hose 10 mtrs	2 nos	Shut off hose with safety valve	4 nos														
Pressure reducer 300 bar to 8 bar	2 nos																										
Control box for operating 2 airbags with pressure gauges ad carrying strap	2 nos.																										
Single control unit	4 nos																										
Air Hose 5 mtrs	2 nos																										
Air hose 10 mtrs	2 nos																										
Shut off hose with safety valve	4 nos																										

SLNo.	Item	Quantity																										
	Connection piece to connect two air cylinders	2 nos																										
47.	Jumping Air cushions type as per specs given below The jumping rescue cushions should have high reliability and shall be easy to handle and shall be capable of being fully erected by 4 to 6 persons. The possible jumping height shall not be less than 30 mtrs. It shall have illumination for night operations and shall be capable of being used in dusty conditions. The detailed technical specifications are as under:- <table><tr><td>Shape</td><td>8 corner shape (octagonal)</td></tr><tr><td>Outer Dimensions</td><td>Not less than 5.50 X 5.50 mtrs</td></tr><tr><td>Usable jumping area</td><td>Not Less than 4.50 X 4.50 mtrs</td></tr><tr><td>Jumping angle (30m height)</td><td>9.74°</td></tr><tr><td>Tube diameter of the inflatable frame</td><td>22 cm (0,22 meters)</td></tr><tr><td>Material of frame</td><td>Natural rubber reinforced with polyester fabric 940 dtex, black</td></tr><tr><td>Material of outer cover</td><td>Fire retardant special PVC-coated polyester fabric, orange</td></tr><tr><td>Material of jumping area</td><td>Fire retardant special PVC-coated polyester fabric, white with black markings</td></tr><tr><td>Compressed air cylinders</td><td>2 x 6l/300bar or equivalent steel cylinders</td></tr><tr><td>Erection time</td><td>Not more than 75 sec. (depending on the used cylinders)</td></tr><tr><td>Re-erection after a jump</td><td>Not more than 10 sec.</td></tr><tr><td>Weight of the complete device (with charged cylinders)</td><td>Not more than 150 kg</td></tr><tr><td>Packing</td><td>It Shall be packed in a valise with handles for 6 persons</td></tr></table>	Shape	8 corner shape (octagonal)	Outer Dimensions	Not less than 5.50 X 5.50 mtrs	Usable jumping area	Not Less than 4.50 X 4.50 mtrs	Jumping angle (30m height)	9.74°	Tube diameter of the inflatable frame	22 cm (0,22 meters)	Material of frame	Natural rubber reinforced with polyester fabric 940 dtex, black	Material of outer cover	Fire retardant special PVC-coated polyester fabric, orange	Material of jumping area	Fire retardant special PVC-coated polyester fabric, white with black markings	Compressed air cylinders	2 x 6l/300bar or equivalent steel cylinders	Erection time	Not more than 75 sec. (depending on the used cylinders)	Re-erection after a jump	Not more than 10 sec.	Weight of the complete device (with charged cylinders)	Not more than 150 kg	Packing	It Shall be packed in a valise with handles for 6 persons	1 no.
Shape	8 corner shape (octagonal)																											
Outer Dimensions	Not less than 5.50 X 5.50 mtrs																											
Usable jumping area	Not Less than 4.50 X 4.50 mtrs																											
Jumping angle (30m height)	9.74°																											
Tube diameter of the inflatable frame	22 cm (0,22 meters)																											
Material of frame	Natural rubber reinforced with polyester fabric 940 dtex, black																											
Material of outer cover	Fire retardant special PVC-coated polyester fabric, orange																											
Material of jumping area	Fire retardant special PVC-coated polyester fabric, white with black markings																											
Compressed air cylinders	2 x 6l/300bar or equivalent steel cylinders																											
Erection time	Not more than 75 sec. (depending on the used cylinders)																											
Re-erection after a jump	Not more than 10 sec.																											
Weight of the complete device (with charged cylinders)	Not more than 150 kg																											
Packing	It Shall be packed in a valise with handles for 6 persons																											
48.	Leak sealing bags	1 set																										
49.	Hydraulic Spreader as per the following specs Spreading force on the open arm - not less than 32 Tons, Spreading distance - not less than 675 mm, Spreading force arm closed - not less than 4 Ton (measured at 25mm from the tips),	1 no																										

Sl.No.	Item	Quantity
	Squeezing force - not less than 6 Ton, Pulling distance - not less than 440mm, Pulling force - not less than 8 Ton. Weight approx 18 kgs, Working temp. range -20 +80 deg. It should have well serrated tips for perfect grip during spreading & squeezing, sharp cutting tips with optimal angle, Slim arms & Yoke design for easy penetration in confined spaces, accurate spring return to neutral position, maximum rotation to the right & to the left only 22 degree, built in double check valves, full protection against overload with all accessories like pulling chains, chain adaptors with a maintenance kit. The carrying handle should preferably have integrated lighting. The equipment & accessories should be new, unused & should conform to latest design & specifications. The tool should have only 1 quick coupler directly connected to the tool without hoses	
50.	Hydraulic Cutter as per the following specs Cutting force in the recess - not less than 100 Ton Capable of cutting round bar - not less than 40mm dia steel rod of 500 - 550 mpa strength Blade opening - not less than 200 mm The dead mans handle should have accurate spring return to neutral position, maximum rotation to the right and to the left only 22 degree, built in double check valves, full protection against overload. The tool should preferably have slim bolt design for easy penetration in confined places and the carrying handle should preferably have integrated lighting. The maintenance kit should have spare blade, tool kit to change the blade etc. The tool should have only 1 quick coupler directly connected to the tool without hoses	2 nos
51.	Hydraulic Combi Tools as per the following specs Spreading force on the open arm - not less than 20 Ton Spreading distance - not less than 350mm Spreading force arm closed - not less than 3.5 Ton measured 25 mm from the tips, Squeezing force - not less than 7.5 Ton Pulling length - not less than 400 mm, Pulling force - not less than 5 Ton, Maximum cutting force in recess - not less than 35 ton Cutting opening - not less than 225 mm, Capable of cutting round bar - not less than 32 mm dia. Weight approx 15 kgs, It should have well serrated tips for perfect grip during spreading & squeezing, sharp cutting tips with optimal angle. The tool should preferably have Slim arms, Yoke & slim bolt design for easy penetration in confined places and the carrying handle should preferably have integrated lighting, accurate spring return to neutral position, maximum rotation to the right and to the left only 22 degree, built in double check valves, full protection against overload with all accessories like pulling chains, chain adaptors, with a maintenance kit. The equipment & accessories should be	2 nos

Sl.No.	Item	Quantity
	new, unused and should conform to latest design and specifications. The tool should have only 1 quick coupler directly connected to the tool without hoses	
52.	Hydraulic Telescopic Ram as per the following specs Spreading force of 1st plunger - not less than 20 Ton Spreading force of 2nd plunger - not less than 8 Ton, Length retracted including cross head - less than 600 mm Total Length including cross head - not more than 1300 mm, Stroke of 1st plunger - not less than 375 mm Stroke of 2nd plunger - not less than 350 mm It should have rotating cross head for easy positioning & perfect grip in every positioning, accurate spring return to neutral position, maximum rotation to the right and to the left only 22 degree, full protection against overload, with all accessories like maintenance kit. The equipment & accessories should be new, unused and should conform to latest design and specifications. The tool should have only 1 quick coupler directly connected to the tool without hoses	1 no.
53.	Rescue Ram as per the following specifications :- Minimum spreading force - 16 Ton, Minimum length retracted including cross head - less than 1000 mm, Maximum length including cross head - less than 1750 mm Pulling force not less than - 5 tons, Stroke - min 2 X 325 mm, No. of Plungers - 2 It should have rotating cross head for easy positioning & perfect grip in every positioning, accurate spring return to neutral position, maximum rotation to the right and to the left only 22 degree, full protection against overload, with all accessories like a maintenance kit. The equipment & accessories should be new, unused and should conform to latest design and specifications. . The tool should have only 1 quick coupler directly connected to the tool without hoses	1 set.
54.	Hydraulic light weight aluminium jack as per the following specifications :- Lifting Capacity - Not less than 50 tons Closed Height - Approx 150 mm Stroke - Approx 50 mm Weight - Not more than 7.5 kg	1 no
55.	Hydraulic light weight aluminium jack as per the following specifications :- Lifting Capacity - Not less than 50 tons Closed Height - Approx 200 mm Stroke - Approx 100 mm Weight - Not more than 9.5 kg	1 no
56.	Hydraulic TOE jack with accessories - It should be Single acting hydraulic tool suitable for lifting heavy vehicles; trams or machines to free victims or objects that	1 no

Sl.No.	Item	Quantity
	are trapped after an accident. Max. centric force on the saddle : not less than 11 tons Max. force on toe : not less than 9 tons Closed height : not less than 440 mm Extended height : not less than 685 mm Weight : not more than 21 kg	
57.	Hydraulic door opener complete with a 2 stage hand pump. The spreading force shall not be less than 9 tons and the stroke shall not be less than 125 mm. A swiveling type connection with 30 cm long hose shall be provided.	1 no
58.	Hydraulic Pedal cutter shall have straight blades, one fixed and one moving, with a cutting force of at least 75 kN (7.7 ton). It shall be suitable to cut metal parts like car pedals, steering wheels, seat frames etc The opening in the jaw shall be at least 40 mm, whilst the width of the jaw shall be no more than 40 mm to use the cutter in confined spaces. It shall have a 360° rotation elbow, 30 cm pigtail hose and quick coupler	1 no
59.	Hydraulic pump for 2 tools simultaneous operation with 15 mtrs long hose as per the following specifications :- Engine - Petrol engine Capacity oil tank (effective / usable) - Not less than 3.6 litres Pump type - 2 stage radial pump Weight - Not more than 25 kgs No. of tools connected - Two No. of tools to be operated simultaneously - Two	2 no
60.	Hydraulic foot / hand operated pump mounted on suitable base plate with 10 mtrs long hose. The pump shall have two-stage operation and shall be capable of developing adequate pressure for operating all the tools including the telescopic ram upto their full capacity	1 no
61.	Coaxial hose having pressure line inside the return line for use with the hydraulic tools 10 mtrs long orange and blue color - 1 each	2 nos
62.	Hose reel with 25 mtrs long high pressure coaxial hose having pressure line inside the return line for use with the hydraulic tools	1 no.
63.	Power Shoring system comprising of the following :- 1 no. Strut with air cylinder retracted length not less than 625mm 1 no. Strut with air cylinder retracted length not less than 1000mm 1 no. Strut with Hydraulic cylinder retracted length not less than 625mm 1 no. Strut with Hydraulic cylinder retracted length not less than 1000mm 1 nos. Mechanical strut retracted length not less than 225mm 1 nos. Mechanical strut retracted length not less than 550mm	1 set

Sl.No.	Item	Quantity
	2 nos. Hand Pump for operating struts with hydraulic cylinders 8 nos. Extension pipe 125mm 8 nos. Extension pipe 250mm 6 nos. Extension pipe 500mm 6 nos. Extension pipe 1000mm 4 nos. Connector 4 nos. Saddle with round surface 2 nos. Saddle with flat plate 4 nos. Tilting saddle 2 nos. Tilting saddle with steel plate 2 nos. beam support 150mm 4 nos. L support 4 nos. Swivel head 1 no. V block 1 no. V block large 2 nos. Cone head 2 nos. Cross head 2 nos. Support plate 2 nos. Tensioning belt 2 nos. Adjustable Hook Wrench Accessories for Struts with Air cylinder 2 nos. Double control unit 2 nos. Pressure reducer 2 nos. hose 5 Mtrs. Each 2 nos. hose 10 Mtrs. each.	
64.	Glass breaker (window punch)	1 no
65.	Evacuation system (rope rescue with tripod and descenders etc) consisting of a Tripod with rope rescue modular evacuation device ratio 3:1. The weight of the Tripod should not be more than 15 kgs and should have 4 point SS anchoring system on the top with Aluminium die cast locking system. All the three sides of the tripod should allow entry of the person without obstacles like chain etc. The load carrying capacity shall be 500 kg and the breaking strength of 1000daN. Their shall be 8 adjustable index positioning. A harness shall be provided consisting of 1 Dorsal attachment D ring / 1 Rescue D ring (rear), 2 Lateral attachment D rings, Positioning belt, Fully adjustable shoulder and thigh straps, net weight 1.6 Kg., and Rescue strap with hooks for 2 nd person. It shall also have a ascending / descending device of 100 operating range with 400 mtrs braided rope of polyamide material of 9 mm dia. The braking of descending load shall be by the friction of the rope on the drum, while a ratchet gear facilitates ascension Control and Descent Speed. The Permissible Load shall e 250 Kg with pulley reduction ratio of 3:1 The weight of this unit shall not be more than 1.75 kg. A ascending and locking handle made of light alloy shall also be provided with special gear belt for rope rescue and	1 set

Sl.No.	Item	Quantity
	sit harness. A descent control device for mass evacuation from high rise buildings and public places consisting of 32 mtrs. Descent controller with all the accessories The features should include Automatic cable rewind, Self control speed of 1.20 per sec., Equipped with centrifugal brake, Load carrying capacity 150 kg. Metallic casing dully painted and shall have stainless steel cable of 5 mm dia and rescue strap. The weight of the unit shall be about 22 kg	
66.	Search Camera - The systems primary configuration should be based on a video camera built at one end of a telescopic boom which can reach out into depths and void spaces up to a distance of 2m. This boom shall be extended telescopically and shall have 4 sections giving a total length of 2m and shall be fitted with minimum 5m of cable. Provision should also be made to manually lock the telescopic boom at the distance required. The video camera shall have a colour display with a sensitivity of 0.5 lux and shall have 6 white LED lights which will allow visibility in pitch black conditions to a distance of 4 m. The camera head shall be able to rotate 360° without stop (infinitely). A speaker and a microphone shall be built into the body of the video camera, which will allow communication with the trapped person through a head-set. The system shall have a control box for the operator which will be fitted with a minimum 7-inch, LCD colour screen, TFT active matrix, and shall be stored in a leather protective case with adjustable shoulder strap. The system shall also be provided with mono headphones fitted with dynamic microphone with anti-disconnection plug which will allow the operator to communicate with the victims via the speaker and microphone built in the video camera. The cable length shall be minimum 1.5 mtrs There should be provision for attachment of an additional headset for use by a third person like an interpreter or a doctor etc The system design shall be such that it would not require more than 2 persons to operate, one operator to handle the probe, and the second for the control box: of the probe to see and search through the screen, communicate with victims. The system shall have an inbuilt battery, 12V - 4.5 Ah battery, Ni-MH technology with an intelligent charger. The battery shall allow minimum 4.5 hours of continuous usage of the system and should be able to be fully charged in 4 hours. The system shall be equipped with an audible alarm which will warn the operator when the battery is low. A suitable Cigar-lighter adapter shall be provided to enable the charge the battery in a vehicle if necessary An additional water proof camera capable of being used at a depth of 60 mtrs with 60 mtrs cable mounted on reel shall be provided. The camera shall be IP 67 compliant and shall give colour display. The camera should rotate 360 deg. and shall have integrated LED lights. Speaker and microphone shall be integrated in the body of the camera The system shall be capable of being operated in temperature range -10° to +60°C	1 no
67.	Life detector - The Life Detector should be a hand held instrument designed to quickly locate Living Human Beings from behind barriers - trapped under debris of structural collapse, from buildings in smoke or even stuck under water by detecting electric field generated by human heart or any other human property. The instrument should be able to detect living human beings from far off distances as long as at least 350~400 m in open air and at least from 150~200 m when behind barriers (any type of barrier including multiple layers of concrete slabs, debris, steel	1 no

Sl.No.	Item	Quantity
	structures, mud-landslide, snow-avalanche, under water etc. The instrument should not need any power supply so that it can be used in disaster emergencies. The life detector should not detect any animals or creatures and should be such that its performance should not be affected by presence of other machinery / instruments	
68.	Acoustic based victim location unit - The equipment is an acoustic listening device. light weight and easy to carry. Designed especially to detect and locate trapped, live victims in collapsed structure caused by earthquake, explosions, landslides, construction cave-ins or mine disasters. The slightest noise the victim makes should be detected by this device and so the sensitivity is exceptional. It is fitted with an adjustable filter to deaden the effect of dull noises like pneumatic drills, lorries passing... <u>Capabilities required:</u> • Housing/Amplifiers & filters: IP66 housing with bar-graph for adjustment with IP 68 connectors. Two very high gain, low noise amplifiers. Two frequency filters "high pass and band pass" infinitely variable, filters activated by 2 keys (the chosen frequency is infinitely variable using the + and - keys) Filter 1: "High pass filter" significantly reduces all frequencies below its adjustment point, which may be between 50Hz and 5 kHz which correspond respectively to the low and the high points on the liquid crystal scale. It will eliminate bass sounds such as lorry movements, dull noises... Filter 2: "Band pass filter" significantly reduces low and high frequencies on either side of its turning point. It will filter an incoming signal. • Sensors: Two ultra-high sensitivity black vibration sensors with 8m of cable - One sound sensor fitted with a microphone and a loud speaker with 8m of cable. • Headset: One stereo head-set with microphone • Batteries: One pack of 6 rechargeable Ni/Mh batteries type LR6/AA (operating life 30h) One accumulator charger (usable at 50/60Hz 100v to 240v) One cigarette lighter charger plug with wire to be use in a vehicle. • Specifications: Operating temperature: -10° to +60°C Storage temperature: -25°to +70°C Total weight: 2kg (in use) / 8 kg (with carrying case) • Carrying case: One carrying strap and one shock proof carrying case	
69.	Loud hailer battery operated	1 no
70.	Inflatable lighting tower with inbuilt 4 stroke petrol engine driven generator of 1200 VA with 400 watts high pressure Metal halide lamp, inflatable height of 4 mtrs with 2 blowers for balloon inflation. It should be possible to use the unit through AC mains. Weight not more than 45 kg	1 no
71.	Pipe wrenches 12 & 24	1 each
72.	Wrench adjustable 12	1 no
73.	Slotted screw drivers	1 set

Sl.No.	Item	Quantity
74.	Orange paint can	1 no
75.	Plywood (Marine grade) 1.25 m X 2.5 m	1 no
76.	Wood wedges	4 nos
77.	Search light (Rechargeable)	2 nos
78.	Inflatable boat for 7 persons with OBM. The inflatable boat should be made of DERNIER 1000 material, 19ll tube dia. The exterior size approx 4200mm X 1800 mm and the interior size should be approx. 2925 mm X 1000 mm. The boat should have max 4 chambers including min. 7ll inflatable keel. It should have interlocking type polyurethane floor boards. The Weight of the Boat should not be more than 90 kgs .The OBM should have 25 hp 4 stroke above 500 cc engine complete with power trim, electric start and quick detachable tubular type steering system and remote control facility	1 no
79.	BA compressor 100 LPM - The Compressor should be a 3 or 4 stage air cooled high pressure compressor for filling SCBA or SCUBA cylinders at a pressure of 200 or 300 bar with switch-over device for the same. It should have capacity / FAD of 100 lpm for standard filling norm and should come with two hoses - one each for 200 and 300 bar. The compressor should be light weight, portable design, driven by a Petrol Engine so that it can be used on disaster sites without power supply also. Air quality should be as per DIN 3188 / CGA-E / EN12021 and should have been tested by one International and one Indian Laboratory. The compressor should be supplied with one spare filter cartridge. Weight should be less than 50 kg	1 no
80.	Thermal Imaging Camera capable of seeing thru zero visibility conditions/ darkness suitable for firefighting and rescue applications. The Thermal Camera should be of latest technology with advanced features such as capability of viewing in at least 4 different color modes, working in zoom mode as well as the capability of capturing / storing thermal images, which can be downloaded on computer for subsequent report preparation. The thermal camera should be lightweight weighing less than 1.50 kgs and the Camera should have provision of showing both the ambient temperature as well as spot/ direct temperature measurements. The Camera should be supplied complete with accessories such as remote control, software , rechargeable battery pack & user manual	1 no.
81.	Rescue rocket system with sling and line deployment consisting of one launcher, inflatable sling and line projectiles with charging hose & adaptor with 300 ft polypropylene rope and 500 ft Decron 3 mm rope with rope storage compartment to be used with the launcher along with accessories. The system should be intrinsically safe and should work on Air Thrust technology.	1 no.

ELECTRICAL SYSTEM :

All the important electrical circuit shall have separate fuses suitably indicated and shall be grouped into a common fuse box located at an accessible position. The wiring shall be single pole with negative earth.

The suitable size wire shall be selected for different circuits considering the current consumption for that circuit.

The light bar with rotating lights of Orange colour with integrated traffic warning system and PA system shall be provide and fitted on the roof of the vehicle. The control amplifier shall be provided in the driver's cabin. The light bar shall be of reputed make such as FEDERAL SIGNAL or equivalent.

The other lights, pump cabin light, locker lights shall be of approved make. All the controlling switches of lights on dashboard shall be approved make.

Two fog lamps of approved make shall be provided and fitted on front-bumper with controlling switch on dashboard.

Adjustable search light assembly shall be provided at a convenient position on the top of rear body deck with 30 mtrs Cable drum with Rexene cover.

All the lockers shall be provided lamps with light operating automatically when the shutter is opened.



SPECIFICATION OF MINI HAZMAT VAN AT ITEM NO.2 ANNEXURE-I.

Chassis :

Mini Hazmat Van shall be fabricated on a 12 Ton GVW Truck Chassis Model TATA LPT 1613 TC BS-III, COWL ERGO PACK (Power Steering) Chassis will be supplied by the fabricator.

CABIN :

The driver cabin shall be original cabin provided along with the chassis. The cabin shall have 2 doors. Cabin shall have seating arrangement for driver and 2 crew members. (Cabin as provided by chassis manufacturer).

STRUCTURE :

Super structure of the appliance shall be welded structure made from MS pressed sections and squares tubes of 2 mm thickness with aluminium panelling outside. The outer panelling shall be done from 1.6 mm aluminium sheet and from aluminium chequered plates 1.2 mm internally. All the MS material used shall be treated for anti-corrosion before paneling is done and shall be presented for inspection. The complete floor and top of the locker compartment shall be covered with 1.6 mm aluminium chequered plates.

REAR BODY :

The rear body shall have at least six roller shutters duly powder coated imported only of Reputed Make of Extruded Construction. Shutters should be Roller type. Suitable Roll in Roll out type Drawers made of good quality and strength Alu. Trays to be provided. All Lockers strong grab rails and non-skid steps shall be provided wherever necessary. 2 Nos. of double pipe grab rails mounted on double pipe sockets shall be provided on both the sides of the vehicles. The roof of the vehicle shall be 1.6 mm aluminium chequered plate and their joints shall be given enough sealing to make the roof water tight. The lockers shall have suitable arrangement for stowage of Hazmat cum Rescue equipments as mentioned in the specification. Further fabricator shall also ensure arrangement for stowage of equipments listed in Annexure – 'A'. Arrangement shall be like that some other equipments like personnel protective equipments. BA set and other tools/ tackles required also can be kept for Hazmat cum Rescue operation.

Water tank of 750 Ltrs. capacity made of MS of at least 4 mm thickness of Bottom and 3 mm for sides, top and baffles to be provided complete with connection with Ultra High Pressure Unit. Tank should have a manhole of 450 mm size, level indicator of glass tube type duly protected and calibrated, sludge trap and Drain Hole for cleaning and suitable Baffle plates.

ELECTRICAL EQUIPMENTS

1. Light Bar
GRAND Make Mini Sun Voice Light Bar with PA system and 2 tone siren shall be provided on the roof of the Tender.
2. Search Light with 30 Mtrs. cable Canara/Prolite makes only. (as per Annexure – G)
3. Cable Winch (as per Annexure – H).
4. (Arrangement for VHF sets. The same will be installed later on by user).



GENERAL REQUIREMENTS :

The tender shall conform in all respect of the provisions contained in the M.V.Act'1988 and M.V.Rules'1989 or to any other statute modifications or re-enactments thereon from time to time. All the equipment necessary for R.T.O.'s clearance shall be provided on vehicles.

WORKMANSHIP AND MATERIAL :

Workmanship executed shall be of the highest order. All directions and instructions on all points related to the fabrication shall be executed whenever given by the purchaser's representative for quality workmanship. All the material to be used in the fabrication of the body work shall be of reputed make and good quality. All equipment and material shall comply with the requirements of the National/ International standards. The structure of the vehicle shall be rattling free and noiseless which in motion.

List of equipments to be supplied with Mini Hazmat Van.

Sl.No.	Description	Quantity
(1)	(2)	(3)
1	One Man Electric Chain Saw (single phase/ 240 volt) (Tree/ wood cutter) power watt 2000, Bar length (cm) 60, weight 10 Kg complete with (a) Extra chain, (b) Extra wire, (c) Plug & socket.	2 Nos.
2.	Battery operated winch of at least 2 T capacity (imported reputed make only)	1 No.
3.	Battery operated tools as per Annexure – 'A'	1 set
4.	Lifting Bags set as per Annexure – 'B'	1 No.
5.	Leak Sealing Kit as per Annexure – 'C'	1 No.
6.	Leak Sealing Plugs as per Annexure – 'D'	1 No.
7.	Wedges and Lances 1. Three wedge shaped sealing bag (230 x 63 x 50 mm, 230 x 75 x 55mm, 230 x 110 x 70mm) 2. Cone shaped sealing bag (230 x 63 mm) 3. Splash Disc. 4. Push/ inflation rod with dump valve (1 No.) 5. Push/ inflation rods 350 mm long (4 Nos.) 6. Foot pump 7. Inflation controller with gauge, shut off valve and pressure relief valve. 8. Inflation hose.	
8.	Inflatable self supportive interceptive tank made of double layer rubber coated polyster fabric well resistant to chemicals and oils with floating ring lifts with the fluid level and equipped with a special valve for inflation and deflation and a floating ring with ari and a relief valve, specially suitable for emergency interventions, interception of hazardous fluids and for storing of water fire extinguishing etc. 1000 Ltrs capacity having weight less than 25 Kgs complete with all accessories and fiidable volume note more than 0.05 M3, Fabric should be impregnated with NBR/ PVC Rubber compound.	1 No.

9.	Inflatable type lighting tower inflatable emergency lighting system comprises of an inbuilt Gen set (4 stroke engine) runs on petrol having two centrifugal fans for inflation of special synthetic polyester fabric in the shape of tower. It can be extended upto 4.5 M in height. A 400 W HPMH bulb is fitted in the system to give the light uniformly spreading about 10,000 sq.m areas in 3 minutes. The unit is capable of working on 220 V AC and power supply. Total weight of the Tower is not more than 45 Kg accessories required, storage box, trolley, lamp, blower, igniters, capacitor, ballast, MCB fitted with Spark Arrestor.	1 No.
10.	Breathing Apparatus as per Annexure – 'E'	2 Nos.
11.	Chlorine Kit	1 Set
12.	Gas Tight Chemical Suit (limited use) complete (Tychem TK/ Respirex/ Trelborg make)	2 Nos.
13.	Set of Gas Detection Tubes at least 5 major Hazardous Gas complete with 1 Air Sampling Pump	1 Set
14.	Set of Gas Detection Strips	1 Set
15.	Multi Gas Detector	1 No.
16.	Ultra High Pressure type Fire Fighting as well as cooling and Diluting Unit Petrol Engine Driven as per specification in Annexure – 'F'	1 No.
17.	Set of wooden plugs of different size. 10 x 25, 25, 50, 50 x 100 mm all 200 mm long size.	1 Set
18.	Set of Teflon/ Polypropylene plugs of different size Taper and of 300 mm length 90 x 25 mm, 60 x 10 mm, 30 x 10 mm	1 Set
19.	Hand Gloves as well as PVC suit for chemical handling (specially sewage and other operation.	3 Set
20.	Gum Boots with steel Toe for chemical and other handling ISI marked or EN approved of reputed make.	3 Pairs
21.	Portable Generator of 2.5 KVA, Petrol Engine Driven Honda or any other equivalent reputed make.	1 No.
22.	Portable Eye and skin wash kit	1 No.

ANNEXURE – 'A'

Specification for Battery operated combitool.

Combitool should be light weight, portable with battery integral and having well designed control switches for easy operation even in difficult conditions.

Combitool shall have following features:

- Compact design having in built hydraulic pump and ideal for confined spaces.
- Always ready for use (i.e. shall not require any setup time)
- Not requiring gasoline.
- Not requiring trailing hose.
- Battery used should be commercially available and light weight type.
- Higher power to weight ratio.
- Body of the tool should rotate through 360° independently from handle.

Description	Characteristics
Cutting Force	300 KN
Spreading Force	90 KN
Pulling Force	40 KN
Squeezing Force	40 KN
Spreading Distance	249 mm
Cutting capacity – Round bar	24 mm
Battery type	18 Volts
Charging time	1 Hour (Maximum)
Number of Cycles/ charge	30 – 40 (Approx)
Weight	14 Kg

Combistool shall be provided with spare battery, battery cover, battery charger, wrenches and carrying case supplied by OEM. Combistool should be manufactured by ISO : 9001 : 2000 certified manufacturers.

ANNEXURE – ‘B’
Pneumatic Lifting Bags (1 set)

The Lifting bags should be reinforced with Kevlar Chords. The sizes, lifting capacity, lifting height is to be supplied as mentioned below:-

ANNEXURE – ‘I’

Size (mm)	-	Min. 750 x 750
Lifting Height (mm)	-	Min. 400
Load capacity (Tons)	-	Min. 40
Weight (Kg)	-	Max. 19 Kg. 9

ANNEXURE – ‘II’

Size (mm)	-	Min. 450 x 450
Lifting Height (mm)	-	Min. 200
Load capacity (Tons)	-	Min. 12
Weight (Kg)	-	Max. 6 Kg.

Accessories:-

1. Deadman controller – 1 No.
2. Shut off cock – 2 Nos.
3. Pressure reducer 200/ 300 bar equipped with hose 2 m – 1 No.
4. Airbag inflation hose 5 m yellow with quick coupling and nipple – 1 No.
5. Airbag inflation hose 5 m blue with quick coupling and nipple – 1 No.
6. BA Air Cylinder CCE approved 300 Bar – 2 Nos.

Manufacturer should have ISO : 9001 : 2000 certification and equipment will all accessories should be of OEM make imported only.

ANNEXURE – 'C'**Pneumatic Leak Seal Plates**

A complete Leak Sealing plate should contain:

Leak Sealing Bag	-	1 No.
Foot Pump with safety valve	-	1 No.
Tension Belt (Yellow, Orange) 10 m length.	-	4 Nos.
Sealing Pad of at least (1000 x 300 x 30 mm)	-	1 No.
Sealing Pad of at least (500 x 300 x 30 mm)	-	1 No.
Inflation Hose (10 meters)	-	2 Nos.

The Leak sealing kit shall be designed for quick and effective sealing of barrels, pipe and tanks.

The sealing bag shall have two opening eyes on each side of fix the pulling straps. The sealing bag shall be made of soft rubber and suitable chord such that flexibility as well as optimum performance is ensured. The bag should be equipped with suitable coupling for inflating and deflating.

Manufacturer should have ISO : 9001 : 2000 certification and equipment with all accessories should be OEM make imported only. 10

ANNEXURE – 'D'**Pneumatic pipe plug kit****Plugs for gas**

Plugs should be elliptical in design and anti corrosive brass design suitable for oil resistant. Anti static and most useful in gas and oil applications.

Plug size : 2" - 3", 3" - 5", 4" - 6" Approx – 1 No. each size.

Plugs for blocking flow

Size range from 1" to 6" (5 Nos. of different size)

Each plug should be of difference size suitable for application.

Plugs should be oil resistant, anti static and made of best quality rubber having safety factor at least 3 for higher reliability and safety.

By pass plugs

Size range from 2" to 6" (3 Nos. of different size)

Made of best quality having safety factor at least 3 for higher reliability and safety.

Plugs should be oil resistance and anti-static.

Extension hose TR-15-of-3 feet long - 3 Nos.

Co2 inflator, hand held type having integrated manual piston hand pump – 1 No.

C/2 cartridge.

Assorted Corks of size 1/8" to 1"

Static discharge kit – 1 set also to be provided.

Static discharge kit – set also to be provided.

All equipments should be provided in one pelican case having automatic purge valve.

Manufacturer should have ISO ; 9001 : 2000 certification and equipment with all accessories should be of OEM make imported only.

ANNEXURE – 'E'

Self contained Breathing Apparatus:

Open circuit self contained Breathing Apparatus set will be of 6 Ltrs. WC & 300 bar pressure of working duration of 30 Min. & 15 Min. escape duration. The weight of SCBA with charged air cylinder will not exceed 15 Kg. SCBA will be CE marked to EN 137.

The SCBA will comprise of following:

- Carbon composite Back Plate & Kevlar Blended Harnesses & adjustable 100% Kevlar Cylinder Band.
- Compact & Non-adjustable pressure reducer with PRV.
- Compact, automatic positive pressure & first breathe actuation; bayonet connection Lung Demand Valve.
- SCBA will have DIN quick connect connection with compressed Air Breathing Cylinder Trolley Unit.
- Full Vision Face Mask of silicone rubber with speech diaphragm, five finger head hardness, polycarbonate visor, Facer Mask will be CE marked to EN 136 class – 3.
- Medium & High pressure Hoses. 11
- Pressure Gauge of SS with Highly luminous dial, protective cover & safety blowout vent at rear. Both Pressure Gauge & Whistle Unit with swivel joint will be shoulder mounted.
- Air cylinder made of seamless steel with ratchet type hand wheeled valve will be of 6 Liters WC 300 bar pressure for total 45 min.

The Air Cylinder, Lung Demand valve with Face Mask will be compatible or interchangeable with compressed Air Breathing Cylinder Trolley Unit.

ANNEXURE – 'F'

ULTRA HIGH PRESSURE UNIT

The ultra high pressure unit shall consist of a Piston/ Plunger Pump, Petrol Engine, High Pressure Hose Reels and the Fog Guns

PUMP

Ultra high pressure piston pump shall be made of brass. It shall be able to discharge 42 LPM of water at a pressure not less than 100 bars. It shall have a manual foam mixer with infinitely adjustable mixing. Delivery directly connected to the hose reel with isolation valve. Suitable safety features shall be provided to divert/ release the pressure in case delivery or hose reel valve is suddenly closed. The pump shall be coupled with separate petrol driven engine. Three of at least 10-12 meter effective length shall be available from fog gun. Screen/ filter shall be provided between water tank and pump to ensure that no mechanical impurity enters the pump. The pump shall have oil bath lubrication of suitable type. Pump be Bi-cylinder type. The pump shall be directly coupled with engine. The pump shall be rated to run with engine of approximately 15 HP (Max) continuous power requirements.

HOSE REEL

The Unit shall be equipped with two separate aluminium axial feed hose reels of 30 meters each. The maximum working pressure shall be 180 bar and it shall be having 10 mm nominal diameter. The hose reel must have quick snap type connections at both ends to ensure quick connection to the high pressure unit. All the couplings must be in SS 316 steel. The hose shall be duly tested and approved for mentioned pressure requirement.

ENGINE

Petrol engine, having sufficient power to meet the pump performances shall be having:

No. of cylinder - 2

Power output - 15 HP (Max)

The fuel tank shall be capacity for minimum two hours nonstop run. Engine shall having an electronic starting facility. The throttle control of the engine shall be automatic and pressure sensitive i.e. Engine shall run at maximum rated RPM when the operator has opened the fog gun discharge and it shall slow down and run at idling speed when no water is being discharged from any of the fog guns.

FOG GUN

Two fog guns shall be provided along with the unit for connecting it to two hose reels. When operating the gun must discharge water with a reach of 15-20 meters. The fog guns must have a facility to lock the throttle when not in use to prevent accident to the operator. The fog guns must have jet as well as fog mode.

TELESCOPIC ROOF MOUNTED MAST: RI SEARCH LIGHT

A compact, low profile, roof mounted folding type, lighting mast, fitted with 4 X 1000 watts water proof halogen lamps. The mast shall be elevated and vertically extended up to 4.5m pneumatically from the roof top. It should be manufactured from Anodized aluminium pipes and have a minimum of 115 mm diameter on its base. The mast shall be installed on the roof of the vehicle at a suitable location.

The light mast shall operate in temperatures of -25 deg C with anti-twist lock, with safety valve and drainage outlet valve.

The telescopic mast should be extremely resistant and designed with a minimum of 4 sections with internal spiraled Electrical cable. Each section of the mast should have a water drainage outlet. The folded and stowed height should not be more than 1800mm. The Light mast will have Halogen flood light and reflectors in weatherproof casing. The floodlights on the top should have a minimum electrical rotation of 355° and a tilt of Suitable connections for taking permanent Power Supply from generator set through an internal spiral wire mounted inside the mast should be provided. Each set of halogen lights should have the possibilities to be switched independently through individual switches. All the functions of the mast, including extension and return to the original position, lights on/off, automatic restore should be possible through a wire remote control. In addition the mast should have the facility to be operated with wireless remote control.

CABLE WINCH

An electrically operated cable winch of not less than 6.5 tons pulling capacity (single layer) would be provided and mounted in the front of the vehicle. The winch unit should be complete with minimum 5.5 hp, 12v DC series wound electric reversible motor for increased pulling power. The motor and solenoids shall be grounded to the battery. It shall have an automatic load holding brake system for more strength. For free spooling the clutch design shall be easy to use type with spring loaded pull and rotate system. The gear system should be 3 stage planetary type for faster line speed and the gear reduction ratio shall not be more than 300:1, the rope drum shall not be of more than 8 inches long having 3.5 inches dia and shall be supplied with minimum 90 ft heavy duty galvanized EIPS wire rope with replaceable self locking clevis hook and would be mounted on the front bumper of the vehicle with suitable strong supports and a 4 way roller fairlead. The weight of the winch shall not be more than 55 kgs. A wireless remote shall also be supplied with the unit.

ACCESSORIES:

The following accessories shall be provided :

Six aluminum hooks for keeping the uniform clothing shall be provided in crew compartment.

Quickly removable wire mesh guards shall be provided to wind screen glass and all the windows of driver cum crew cabin.

WORKMANSHIP AND FINISH :

The vehicle shall be fabricated, painted etc. with standard workmanship, acceptable to the inspecting authority.

TRAINING

The successful tenderer has to arrange training for the personnel of fire brigade department in handling, operation and maintenance of the above equipment.

The training shall cover operation, handling and maintenance of all the tools equipment and gears listed under this tender.

All the expenses towards the training shall be included in the cost in addition to training material and the cost of tools and equipment and consumable required at the time of training.

INSTRUCTION BOOKS :

Instruction books for the guidance of the user including both operation and normal maintenance shall be supplied for all the equipments in English language.

The books shall include an item wise and illustrated spare parts list giving reference numbers of all the possibly swearing parts.

The workshop manual and spare parts catalogue of chassis shall also be supplied with vehicle preferably with soft copy.

SPECIFICATION AND DRAWINGS :

Full detailed drawings of the body showing the body construction, lockers, placement of various tools etc. shall be submitted, without which tender will not be considered.

The successful tenderer will have to submit two copies of detailed drawing showing detailed dimensions, stowage arrangement fittings, etc. which shall be got approved from technical expert of the department before commencement of fabrication work.

The tender shall submit full detailed specification along with technical literature with a tender for all the items. The copy of necessary approvals wherever asked and drawing of rescue tender shall be submitted along with technical bid.



**Specification of Fire Safety Mobile Awareness /
Educational Van (12 Ton) at item No.3 in Annexure-I**

CHASSIS

Mini Rescue Tender shall be fabricated on a 12 Ton GVW Chassis Model TATA LPT 1613 TC BS-III, COWL ERGO PACK (Power Steering) Chassis will be supplied by the fabricator.

FABRICATION

The overall vehicle shall be fabricated from steel and aluminum sandwich panels duly insulated before bonding with a total thickness of min.25 mm (side panels) and 30 mm (roof panels).

The floor shall be made of plywood, or equivalent material, and covered with and easy to clean anti-slip rubber / PVC layer / tiles. At the right rear side of the compartment a door shall be installed. The door can be opened from the inside and outside. The door shall be protected against corrosion while the door sealing will prevent water to entering when the door is closed.

The Training compartment shall feature three windows fitted in the side panels on the right side of the vehicle, the windows shall be made of protective glass. In the roof 2 hatches shall be provided for ventilation, daylight and for escape purposes.

Body color and stripping shall be as per Fire Brigade norms i.e. PO Red.

ELECTRICAL INSTALLATION

The electrical wiring and equipment used / installed shall have protection level as conforming to IP44. The electrical installation shall be protected against overloads and shortcuts. A circuit breaker shall be installed for extra safety.

All connectors, control and warning lights will be clearly positioned. At the left side of the front wall of the vehicle, a metal clad 220 volts connector with safety cap shall be installed for connection of external power. Suitable cable lead of 60 meters minimum with suitable plug at both ends shall be provided along with the vehicle for connecting external supply of power.

The inside of the Training compartment shall be fitted with 220 V CFL lights (PHILLIPS or equivalent) installed in protective case. Above the entrance door on the outside, a

230 V lighting unit shall be installed.

The training compartment shall be fitted with surge protection and power conditioning, in order to safeguard vulnerable equipments such as computers, communication equipment etc. from power surges, lightning and other power anomalies.

For air refreshment, an electrical ventilator shall be installed in the wall.

GENERATOR

A Honda or similar make 5.5 KVA silent type of generator will be provided and installed at suitable location on the vehicle.

2

The generator will be capable of being used for internal equipment as well as for external equipments in case of emergencies. The Frequency of the generator will be 50 Hz.

AIR CONDITIONING UNIT

A vehicle driven A/C unit of minimum 2.5 tons capacity with good ducting system throughout the vehicle shall be provided for efficient cooling of the compartments. The system should be effective in ducting vent system and be silent in operation.

TRAINING COMPARTMENT (INTERIOR)

One number of air curtain should be installed on top of the rear door to prevent dust, insects etc from entering the vehicle as well as for better air-conditioning, when the door is open.

Sufficient numbers of CFL lights for efficient lighting of all kiosks.

Wall mounting fans - 04 nos. of Crompton or equivalent make shall be used.

The following training material shall be provided with the vehicle.

- (i) M/S tray of dimensions
- | |
|----------------|
| 6 x 3 - 3 Nos. |
| 4 x 2 - 3 Nos. |
| 3 x 3 - 3 Nos. |

All the trays should be able to be stored one inside the other and be lockable with snap fit. Suitable inconspicuous space be provided for safe string and easy recovery of the stored trays.

(ii) The details of overhead projector and other accessories are specified below:

LCD TV 32" with DVD Player	01 no. KLV-32V 400A Sony.
Lap Top	01 no. VGN-CS18GN/B Sony.
HDD	01 no. HDR-SRIO E 40 GB Sony.
PJTX-100	01 no. Hitachi or any other similar make.

Overhead projector with screen - 01 nos. as per specification given in Annexure —All.

The projector shall be mounted inside the vehicle at almost the rear door opening and be foldable as well as swivel type so as to enable screening on any outside screen from the vehicle. Another pull down screen shall be provided inside the vehicle so as to enable screening inside the vehicle if so desired.

LCD TV 32" with DVD Player 01 nos. as per specification given in annexure —All.

(iii) Following ISI portable extinguishers 01 each:

- Water Co2 extinguisher 9 ltrs. capacity.
- DCP Extinguisher 5 kg. capacity.
- Mechanical foam extinguisher 9 ltrs. capacity
- ABC extinguisher 5kg. capacity.
- Co2 extinguisher 4.5 kg. capacity.
- Modular extinguishers 2kg. capacity.

Above extinguishers shall be displayed in snap fitting vibration free type display panel inside of the vehicle. Extinguishers shall be easily removable from display panels and clear



markings by fixing name plates be provided for easy identification of type of extinguishers. At least 05 refills of all types of above extinguishers shall be provided with each vehicle with a suitable locker for safe and inconspicuous storing of refills. All extinguishers shall be ISI marked.

- (iv) Common fluorescent signage's 150x300 mm size "Exit" "STAIRCASE" & "do not use lift in case of fire" 50 each.
- (v) Stowage for Breathing Apparatus-O 1 Nos. with spare cylinder (To be supplied by the department).
- (vi) Stowage for fire proximity suit - 01 nos. (To be supplied by the department).
- (vii) One Handy Cam as per specification given in annexure —All.
- (viii) First Aid Box - 01 nos.
- (ix) Fire alarm system with 02 nos. smoke detectors and 02 nos. heat detectors, which can be used for dual purpose of protection of the vehicle as well as for display purpose. The system shall be fully operational with one no. manual call point, one internal and one external hooter, rechargeable maintenance free battery back-up and shall have provision for simulating fire conditions (Both for smoke as well as for heat) for display purposes.
- (x) External Display of Working System: the vehicle shall have a 500 Liter Water tank suitably placed with a 450 LPM. @ 40m head deliver water through a fire hose of 38 mm dia and piping permanently connected to 01 nos. 38 mm hydrant valve, hose reel and a single sprinkler. The system should be able to simulate fire condition where "without any actual fire" the fire can be started with press of a switch and fire glow is shown in fiber glass fabrication. In the process when temp reaches 68 C the sprinkler is operated and falling water on the fiber "extinguishes" the so called fire. The system should be fit only for demonstration and no actual fire should be needed for this purpose. 01 no. 38 mm fire hose 7.5 Meters. length with hose couplings and branch pipe should be provided so that demonstration of this item can be held. Suitable pressure gauge and thermometer near sprinkler should be provided for ease of display. Filling connection for water tank shall be provided.

TRAINING COMPARTMENT (EXTERIOR)

On the exterior of the vehicle, folding gull wing type of doors will be provided, which will have the various procedures of training imprinted on them.

These doors will be made of robust frame that can support the entire weight of the glass. The doors will be held up by pneumatic / hydraulic jacks that can be operated from inside the vehicle only.

The glass doors will have reverse screen-printed vinyl on the backside so that the same is protected from physical damage. Once these glass doors are lifted, they will expose the internal wall of depictions.

The internal wall shall be so made that there is minimum projection into the interior compartment. This wall will house the pictograms and the interactive boards of the department.

COMPUTER

Stowage for 2 nos. of computers and peripherals shall be provided. There should be suitable electrical connection, suitable furniture for accommodating provided.

SIGNAGE/MARKINGS :

All the signage shall be as per international standards and all the markings shall be in "English" language only.

FINISH

Surface treatment of the Training Vehicle shall be suitable for the working environments under the local climatic conditions.

INSTRUCTION PLATES (IF AND WHERE APPLICABLE) :

Instruction plates made from a non-corrosive metal, are to be fixed in such a position that they can be easily read by the driver and crew.

Theses plates are to indicate in English, any instructions, warnings or precautions necessary for the operation of the vehicle and supporting vehicle. The instructions, warming or precautions, which affect life and limbs, are to be lettered permanently in Red. All instructions shall be in luminous paint to facilitate ease of reading at night.

Drawings of the vehicle should be submitted and got approved from the department before commencement of fabrication

WORKMANSHIP AND MATERIAL:

Workmanship executed shall be of the highest order. All rivets and bolt holes shall have a coat of approved paint on both surface before riveting or bolting or welding. All steel screws, bolts, nuts, rivets etc. shall be zinc coated or shall have rust proof coats by recognized process.

The roof joints shall be subjected to rigid water test at the tenderer's working in the presence of the representatives of the department. All the directions and instructions (oral or written) on all points related to the fabrication shall be executed whenever given by the inspecting authority for quality workmanship with quality.

All the material to be used in the fabrication of the body work shall be of reputed make and good quality or approved make and type. All equipment and material shall comply with the requirements of the latest relevant standards. The structure of vehicle shall be rattle free and noiseless while in motion.

GENERAL :

The successful tenderer will have to comply with the conditions given in the attached tender form and will have to enter into written contract for the supply work as given in the form.

MARKING:

Appliance would be clearly & permanently marked with the following information:

- (a) Manufacturer's Name & Trade mark.
- (b) Year of Manufacture.
- (c) Engine Number.
- (d) Chassis Number.
- (e) Supply order No. & date.
- (f) Date of delivery.

GUARANTEE

The successful tenderer will have to furnish a maintenance guarantee, undertaking for service, repairs, replacement, maintenance etc. against any defects in the material used, for a period of **1 years** commencing from the date of acceptance of the appliance.

The tenderer shall guarantee the supply of spare parts and service for minimum period of **10 years** from the date of expiry of the warrantee / guarantee given for the supply of appliances and equipments/tools.

INSPECTION & TEST:

The vehicle will be subjected to inspection and testing prior to dispatch of vehicle at the factory premises of manufacturer by the inspecting authority.

The following inspection during fabrication can be made by department at the following stage:-

First Stage, Second Stage, Final Stage:

Stability Test: Stability of appliance will be such that when fully equipped & laden, if the surface on which the appliance stands is tilted to either side at an angle of 27° from horizontal it will not overturn.

Gradient Test: The vehicle will be tested on a gradient test ramp at an angle of 1:4. as per BIS.

Road Test: After completion of all the above mentioned tests, a road test shall be carried out where the vehicle shall be tested as per the parameters laid down by the BIS.

The braking, acceleration & top speed tests shall be checked & recorded by the inspecting officers.

The inspection and testing will also include all the tools and equipments supplied with vehicle for their performance test.



TERMS & CONDITIONS

Own technical details along with the drawing and the printed leaflets/pamphlets of the items mentioning its make, etc. are to be furnished invariably by the Tenderers.

TATA LPT 1613 TC BS-III, COWL ERGO PACK (Power Steering) Chassis will be supplied by the fabricator for fabricating of 1) Mini Rescue Tender (12(ton, fully equipped with advance rescue equipment and appliance) 2) Mini Hazmat Van (12 Ton), 3) Fire Safety Mobile Awareness/Educational Van (12 Ton) and 4) Inflatable Motor Rescue Boats along with synthetic Life Jackets, Life Buoys, Personal diving kits, Dive fins, Gloves, BA Sets light weight with spare cylinders, Diving suits and under water torch respectively. The successful Tenderer will submit an acceptable Bank Guarantee and the comprehensive Insurance Policy equivalent to the cost of chassis towards its custody. The successful Tenderer shall also be responsible for its safe custody while in his custody against loss/damages, fire, theft or negligence on his part and to keep the Insurance policy valid till the chassis are in their premises.

The relevant specifications mentioned can be seen/obtained from the website of www.manipur.gov.in.

Tenderers shall submit their Quotations in TRIPLICATE giving complete technical details of the equipments clause by clause

The items of stores offered shall conform to appropriate Indian Standard Specifications wherever the same exist and the items of stores bearing ISI(BIS)Certification Marks shall be given reference.

The Tenders received will be opened at 11.00 Hrs on 14th March, 2015 in presence of such Tenderers or their authorized representatives are present at Manipur Fire Service H.Q., Imphal – 795 001.

Free Samples when asked for should be sent :

Spares for at least 3 (three) years in respect of fast wearing out parts for the items of stores offered are to be furnished with respective prices.

DELIVERY :

Free delivery of the vehicle shall be given at **MANIPUR FIRE SERVICE DEPARTMENT H/Q, IMPHAL**. Delivery period should be specifically mentioned in the tender. The responsibility of vehicle will be upon the tenderer while vehicle is being transported and when under fabrication work.

Delivery of the items of stores is September, 2015. The earlier guaranteed/monthly/weekly rate of supply is to be furnished. For and delay beyond the expiry of the delivery date, the contractor shall be liable to pay damage, in terms and conditions of the contract applicable.

It is to be confirmed that the stores are strictly to specifications/drawings and that deviations, if any, desired from the specifications/drawings, be clearly indicated wherever applicable.



The Tender must be accompanied by Earnest Money of Rs.50,000/- (Rupees fifty thousand) only in Bank Draft drawn in favour of the undersigned along with the recent/valid Income Tax and Sales Tax clearance certificates. Tenderers who have registered themselves as Small Scale Industry in any State of the Union should enclose with their quotations. A copy of the Registration Certificate issued by the concerned Industries & Commerce Department being attested by a Gazetted Officer should be furnished. If any firm quoting rate contract fixed by D.G.S. & D may also be indicated and a copy of the rate furnish. Documentary proof of registration with D.G.S. & D should also be given if applicable.

The prices quoted should be inclusive of VAT . The rate quoted should be **valid for atleast a period of 6 (six) months from the date of opening of the Tender.** If during this period, the rate quoted in the Tender is revised or withdrawn, the Tender is not only liable for rejection but the Tenderer will also be liable to any loss to the Government in this regard.

Tenderers should quote rates on F.O.R. Imphal inclusive of Risk Insurance. Rates on F.O.R., Imphal shall be **deemed to include, cost of freight, transportation, Central Sales Tax, Octroi and Local Sales Tax. Rates quoted should be distinctly shown in figure and words.**

Successful Tenderers will be requested to furnish a security deposit calculated at 10 (ten) percent of value of the supplies contracted for and to execute an **agreement** in the case of Fabrication of Advanced Water Tenders. The stamp duty on the agreement should be borne by them.

No person making a Tender shall be allowed to withdraw his tender after acceptance of his tender. In case of such withdrawal if the Tender is accepted the Tenderer fails to pay security deposit and execute an agreement within 30 (thirty) days of notice of such acceptance, the Tenderer is liable to forfeit to the Government the amount of Earnest Money deposited by him in respect of such Tender and this will be without prejudice to other rights and remedies of the Government.

The Courts of Imphal shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.

Tenders should be superscribed **"TENDER OF FIRE EQUIPMENTS"** due on 14.03. 2015 in red ink, sealed and addresses to **BY NAME to the Director, Manipur Fire Service, Imphal -795001 and should reach him before 16.00 Hrs. on 13.03 2015. Tenders received after that date, due to postal delay or whatever the case may be, will not be considered. The power should also show the name and address of the Tenderer.**

No erasures, interlinations or alterations will be allowed.

The equipments offered should be guaranteed for a minimum period of one year.

No application for assistance to get quota for raw materials will be entertained. Tenderers should make their own arrangements to procure the same and to supply the goods in time.

In case of imported items of stores, the tendering firms should give the details of Ex-work, F.O.R., C.I.F., and F.O.R. rates. The break-up of the differences in these rates should also have to be accounted for.

The contractor shall make his own arrangements for obtaining import licences if needed, in respect of articles tendered for supply under these contract, from the authorized concerned and in no case will his application in this regard be forwarded.

The firm, in the trade, who have already executed the jobs vide the list above mentioned should only need to send in their offers.

Stage inspections and acceptance tests of the appliances/equipments and the other items of stores will be carried out by the undersigned or by his duly authorized representative from time to time.

The Director, Manipur Fire Service, Imphal does not bind himself the right to select from any Tender only such articles as may be considered expedient to accept.

Each article tendered for in Annexure - I will be considered as a separate and distinct tender in itself and rates for each items should be quoted separately.

No Tender will be considered which does not bear the Tenderer's signature and address at the bottom of each page of the Tender documents on which the rates are entered.

No representation for enhancement of rates once accepted will be considered during the currency of the contract.

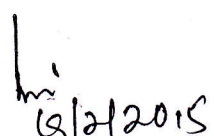
If any successful Tenderer wishes that some other conditions quoted by him should also be accepted, he should specially raise the issue as soon as the supply orders reach him and get the same accepted or clarified.

In the case of items of stores rejected does not being in accordance with the approved samples or as have been received in damaged conditions, the contractor should be prepared to take them back and replace them by correct materials within a week without additional cost to the Government.

Director, Manipur Fire Service has the right to decide or finalise for any deviation or dispute arising on Technical Specifications.

In matters of dispute regarding the supply not being in conforming with the approved quality or the performance of the items of stores, the decision of the Director, Manipur Fire Service, Imphal shall be final.

Successful Tenderers should not demand advance for execution of the work. Full payment will be made only when the items of stores ordered are received in full and in good condition at Imphal.


Director,
Manipur Fire Service,
Imphal