

TENDER

FOR

**SITC OF FIRE PROTECTION SYSTEM FOR THE EXISTING
BUILDING FOR FACTORIES AND BOILERS, KAKKANAD, KOCHI**

Volume- IV

PRICE BID

TENDER NO. HITES/IDS/19/05 dated 04.07.2019

July 2019



HLL INFRA TECH SERVICES LIMITED

(A Fully owned Subsidiary of HLL Lifecare Limited)

HLL Bhavan- Golden Jubilee block

Mahilamandiram Road

Poojappura, Thiruvananthapuram-695012

Ph: 0471 2775500

1 COMMERCIAL CONDITIONS

1.0.1 The tendered rate shall inter alia be deemed to include for the provision of all materials, process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.

1.0.2 The tendered rate shall include for all taxes, duties including GST as applicable and shall be quoted on the works contract basis for **SITC of Fire Protection System for the existing Building for Factories & Boilers, Kakkanad, Kochi.**

1.0.3 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/ equipment, labour or any other reasons whatsoever during the contract period and valid extension on the case may be.

1.0.4 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

1.1 UNIT RATES

1.11 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

1.2 BRIEF DESCRIPTION OF PRICING

1.2.1. Unforeseen difficulties for which provision has not been made in the tender will in no way relieve the successful tenderer from the full execution of the work.

1.2.2 The price quoted shall be the final amount for this finished work.

1.3 INCOME TAX

Any payment to the contractor as per contract, will be made after deducting income tax as per the rules and regulations.

1.4 SALES TAX AND EXCISE DUTY

The tenderer shall include all applicable taxes and duties in their quoted rates. The bid which mention that applicable taxes and duties extra shall be summarily rejected.

1.6. SUBMISSION OF BILL

- 1.6.1. The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill. The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

1.7. EXTRA ITEMS

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the employer.

- 1.7.1 All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.
- 1.7.2 All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

1.8. OVER TIME WORK

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Engineer-in-charge. He should also provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

- 1.8.1. The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Engineer-in-charge on any point of dispute between the various parties shall be final and binding.
- 1.8.2. It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of

controlled materials and the rates quoted in the contract are fixed till the completion of the contract.

- 1.8.3. The contractor shall co-operate with other agencies appointed by the owners for the work to proceed smoothly with the least possible delay and to the satisfaction of the owners and the consultants.
- 1.8.4. The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

2 SPECIAL CONDITIONS

2.1 EXECUTION WORK

- 2.1.1. The whole of the work as described in the contract (including bills of materials, specification and all drawings pertaining thereto) and as advised by the Engineer-in-charge from time is to be carried out and completed in all parts to the entire satisfaction of the Employer. Any minor details of construction which are obviously and fairly intended, or which may not have been definitely referred to in this contract, but which are usual construction practice and essential to the work, shall be included in this contract.

2.2. CERTIFICATE OF COMPLETION

- 2.2.1 The contractor shall intimate to the Engineer-in-charge in writing as and when the works are completed and put into beneficial use in order to enable the consultants to check certify to the owners to take over the work.
- 2.2.2 The work shall not be considered as completed and put into beneficial use until the EIC have certified in writing that the same has been completed and put into beneficial use.
- 2.2.3 The defects liability period of three years shall commence from date of such completion or any specific date mentioned therein.

2.3 Payment terms

- i. 70% after supply of materials at site in good working condition on pro-rata basis.
- ii. 20% after completion of installation in all respects.
- iii. Balance 10% will be paid after testing, commissioning & handing over to the client, including all required statutory approvals.

SITC of Fire Protection System for the existing Building for Factories & Boilers, Kakkanad, Kochi

FIREFIGHTING WORKS

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
PART A							
1		<u>FIRE FIGHTING SYSTEM</u>					
1.1	MR	Supply, installation, testing and commissioning of terrace pump rated for 900lpm at 35 M head high efficiency volute type with cast iron casing coupled to a squirrel cage induction motor, totally enclosed fan cooled with supply condition 415 V, 3 phase, 50 HZ, foot mounted type rated for suitable 12.5 HP at 2900 rpm with suitable starter (DOL/ Star Delta) and control panel for automatic and manual operation, including power cabling	No.	1			
1.2	MR	Providing and fixing in position the industrial type pressure gauges with gun metal/brass valve complete as required .	No.	3			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.30	MR	Supplying and applying thick readymade wrapping & coating 4mm thick material over one coat of coal tar primer for underground pipes (150 mm dia)	Sq.Mtr	20			
1.4	MR	Providing and fixing forged brass ball valve with forged brass ball suitable for operating pressure of not less than 16 kg / sq.cm of the following size.					
1.4.1		50 mm dia	No.	2			
1.5	MR	Supplying, fixing, testing and commissioning of following BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O ring & PN 16 pressure rating as specified					
1.5.1		100 mm dia	No	5			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.5.2		80 mm dia	No	3			
1.5.3		65 mm dia	No	1			
1.6	MR	Supplying, fixing, testing and commissioning of following NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN16 pressure rating as specified					
1.6.1		100 mm dia	No	1			
1.7	MR	Providing and fixing of spring loaded relief valve suitable for pressure of 16 Kg / sqcm including flanges nuts bolt and washer etc. complete as required.					

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.7.1		25 mm dia	No.	1			
1.8	MR	Providing & fixing SS fire hydrant single landing valve with 80 mm NB. flanged inlet, brass spindle controlled 63 mm dia female instantaneous outlet type. SS coupling, blank cap, chain, twist release type lug & all accessories Conforming to IS standards with ISI mark. Including fixing with anchor fastner and flanged tapping from wet riser.	No.	6			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.9	MR	Providing & fixing swinging type First Aid hose reel in red colour drum with 30 mts. long and 19 mm dia heavy duty thermoplastic water hose, globe valve stop cock, terminating with SS coupling & nozzle of 6mm outlet with shut off valve conforming to IS:12585 complete with MS socket for tap-off, drum and brackets (including painting) for fixing on wall with anchor fastner, bolts & nuts conforming to IS:884-1969 complete as required.	No.	4			
1.10	MR	Providing & fixing non-perlocating rubber reinforced lined fire hose pipe (as per IS : 636, Type A) of 63 mm dia and length as described below. The hose shall be rated for burst pressure of 35.7 Kg/sqcm. Hose shall be complete with ISI marked brass male & female coupling (IS:903) bound & rivetted to hose pipe with copper rivets & 1.5 mm copper wire.					

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
	MR	15 m length	No.	12			
1.11	MR	Providing and Fixing SS 63 mm dia instantaneous pattern branch short pipe , 20 mm dia nozzle conforming to IS standard, suitable for inter connection to hose pipe coupling complete as required.	No.	6			
1.12	MR	Supply, installation, testing and commissioning of weather proof hose cabinet having the size of 750x600x250mm made of 16gauge MS Sheet with full front front glass door and locking arrangements suitable to accommodate 2 nos 15m long hose pipes and 1 No. branch pipe. The cabinet shall be painted to scarlet red color outside and white inside.	No.	6			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.13	MR	Providing & fixing SS fire brigade connection (suction collecting head) consisting of 4 No. 63 mm dia instantaneous type male couplings with built-in check valves, 1 No. 150 mm dia sluice valve, (1 No. 150 mm dia non-return valve) and 150 mm dia flanged outlet complete with bolts, nuts and rubber insertions as required and as per IS standards	No.	1			
1.14	MR	Providing & fixing SS fire brigade suction hose coupling (draw-out connection) with nut for female coupling as per IS standards complete with 100 mm dia GI suction pipe and 100 mm dia foot valve (to be connected to static tank). Provision of GI drop pipe and foot valve shall be made in all the fire water static storage tanks (4 No.) (GI pipe to be paid separately through appropriate item while cost of foot valve to be included).	No.	1			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.15	MR	Providing,laying and fixing following dia RCC NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc. as required					
1.15.1		500 mm dia	metre	10			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.16	MR	Providing, laying, jointing and testing of following sizes of MS 'C' class pipes, heavy grade, conforming to IS-1239 with all accessories like all fittings (for pipes upto 50mm dia threaded forged steel fittings and for pipes above 50 mm dia MS fitting with welded joint shall be used) including tees, elbows, reducers, union, flanges, rubber gaskets, GI nuts bolts, washer including supporting / fixing the pipe on floor/wall/ceiling with clamps, hangers (using anchor fastners) as per specification. Pipe sleeve of suitable higher size shall be provided wherever the pipes are crossing the walls / floors and sealing the sleeves with glass wool in between & fire sealent compound at either end all as per Project Manager's requirements including cutting holes and chases in brick, RCC work and making good the same to original conditions complete in all respects.					
		All hangers, clamps, brackets etc. shall be of galvanized iron unless specified otherwise and then supply of the same shall also be included for rates under this head. Welding of any kind on the galvanized support / hanger shall not be permitted.					

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
		Providing two coats of synthetic enamel paint of approved shade over a coat of primer. Prior to application of primer the surface should be cleaned for any dirt, rusts, rough substance etc. Including painting of legends both direction arrow					
1.16.1		25 mm dia	RM	192			
1.16.2		32 mm dia	RM	30			
1.16.3		40 mm dia	RM	36			
1.16.4		50 mm dia	RM	54			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.16.5		65 mm dia	RM	36			
1.16.6		80 mm dia	RM	36			
1.16.7		100 mm dia	RM	96			
1.16.8		150 mm dia	RM	15			
1.17	MR	Supply, installation, testing and commissioning of electrically operated water flow switches (Vane type) including tamper switch and accessories, complete with tap off socket arrangement as required, with potential free contact with 2 Nos. NONC.	No.	1			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.18	MR	Providing & fixing brass quartzoid sprinklers (UL approved) of 15 mm dia size, suitable for sustaining the pressure on the seat & water hammer effect. The type & temperature rating shall be as follows :					
1.18.1	MR	Supply, installation, testing and commissioning of approved make 15mm dia brass Sprinkler heads, quick response, designed to operate at 68 deg. Celsius etc. with necessary fittings etc of Pendant type	No.	60			
1.18.2	MR	Supply, installation, testing and commissioning of approved make 15mm dia brass Sprinkler heads designed to operate at 68 deg. Celsius etc. with necessary fittings etc of Sidewall extended coverage sprinkler quick response type.	No.	5			
1.18.3	MR	Supply, installation, testing and commissioning of approved make 15mm dia brass Sprinkler heads, quick response, designed to operate at 68 deg. Celsius etc. with necessary fittings etc of upright type.	No.	25			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
1.19	MR	Supplying, fixing, testing & commissioning of Sprinkler Flexible Hose 1000 mm in length, Unbraided, UL Listed along with all necessary accessories like Nipple threaded , Reducing Nipple threaded, Large Bracket with Bolt, Small Bracket with Bolt, clamps,reduser collar,Meter Square Bar etc complete as per spec.	No.	20			
1.20	MR	Supplying and fixing of GRP tank of specified capacity	Litres	10000			
1.21	2.10	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m, including getting out the excavated soil , and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50m:					

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia but not exceeding 300 mm dia	metre	40			
2		<u>FIRE EXTINGUISHERS</u>					
2.1	MR	Supply, installation, testing and commissioning of following types of extinguisher with provision of wall bracket (fixed with anchor fastner) or floor mounted.					
	MR	ISI marked (IS:2878) Fire Extinguisher, Carbon-di-oxide type capacity 4.5 Kg. Flat base including valve, discharge hose of not less than 10 mm dia, 1M long and complete in all respects including initial fill with CO2 gas conforming to IS:307-1966 filled to a filling rate of not more than 0.667 and wall suspension bracket.	No.	4			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
2.2	MR	ABC (Powder Type) Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:1349-1993.					
2.2.1		2 Kg	No.	4			
2.2.2		4 Kg	No.	4			
2.3	MR	Supplying and installing at approved location approved make fire buckets of 24 gauge galvanized steel sheet, standard 9 litre capacity and of round bottom shape, painted white inside and red outside and black on the bottom, inscribed with letters "FIRE" in black and gold. Cost shall be inclusive of providing MS stand for 2 nos of fire buckes, or , duly painted over a coat of primer.	No.	2			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
3		<u>FIRE SIGNAGES</u>					
3.1		Providing and installing in position the following type of sign boards made out of 3mm thick rigid PVC board with computer cut with texts written to recommended height in photolumiscent material complete vide technical specifications with mirror fasteners. Sizes and mounting height of the board shall be as per technical specification.					
		Signage with printed "IN CASE OF FIRE, USE STAIRS UNLESS INSTRUCTED OTHERWISE" of 1.5cm height letters in red with white back ground.The size of the board shall be 25cm x 30 cm and shall be fixed at the height of 2 mts. from finished floor near Manual call points.Auto Glo	No.	4			
3.1.2		Life safety related signage's (EXIT, DIRECTION ARROWS i.e., left ,right ,straight ,down up, Both way)as per site condition. The size of the board shall be 10cm x 30 cm	No.	20			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
3.1.3		Providing and installing in position the following type of sign boards made out of 3mm thick rigid PVC board with computer cut with texts written to recommended height in photolumiscent material complete vide technical specifications with mirror fasteners. Sizes and mounting height of the board shall be as per technical specification.					
3.1.4		Signage with printed "IN CASE OF FIRE, USE STAIRS UNLESS INSTRUCTED OTHERWISE" of 1.5cm height letters in red with white back ground.The size of the board shall be 25cm x 30 cm and shall be fixed at the height of 2 mts. from finished floor near Manual call points.Auto Glo	No	4			
3.1.5		Life safety related signage's (EXIT, DIRECTION ARROWs i.e., left ,right ,straight ,down up, Both way, MCP etc)as per site condition. The size of the board shall be 10cm x 30 cm	No	15			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
3.1.6		Providing and fixing in position the signage's " FIRE ORDER" on 3mm thick "Opaque" PVC foam board of computerized cut, PVC non-reflective self adhesive vinyl painted foam board of 750mm x 450mm.	No	4			
3.1.7		Providing and installing in position the Fire safety Plan to a recommended scale and at suggested locations	No	1			
3.1.8		Assembly point 12"x12"	No	1			
PART B							
FIRE DETECTION AND ALARM SYSTEM - ADDRESSABLE TYPE							
1	LMR	Supply,Installation,Testing & Commissioning of Addressable Smoke detector with base, Junction box, cable termination by using gland & locknut and other accessories as required.(<u>Above false ceiling Smoke Detector</u>)	No	5	3167		

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
2	LMR	Supply, Installation, Testing & Commissioning of Addressable Smoke detector with base, Junction box, cable termination by using gland & locknut and other accessories as required. (<u>Below false ceiling Smoke Detector</u>)	No	30	3167		
3	LMR	Supply, Installation, Testing & Commissioning of Addressable Multi sensor detector with base, Junction box, cable termination by using gland & locknut and other accessories as required. (<u>Multi Sensor Detector</u>)	No	5	3730		
4	LMR	Supply, Installation, Testing & Commissioning of <u>Response indicator</u> for all detectors located above false ceiling	No	5			
5	LMR	Supply, Installation, Testing & Commissioning of Analogue Addressable <u>Fault isolator module</u> including cable termination by using gland & locknut. It shall be capable of monitoring shorted loop circuit and automatically restore communications when abnormal condition is corrected.	No	2			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
6	LMR	Supply,Installation,Testing & Commissioning of Analogue Addressable <u>Interface module</u> including cable termination by using gland & locknut. It shall be capable of providing voltfree contact rated at 24v DC, 2A.It shall communicate between flow switches / tamper switches installed in fire protection system & FACP and avail status of the system.	No	2			
7	LMR	Supply,Installation,Testing & Commissioning of <u>Horn / Strobe</u> rated at 82 dBA @ 3m for audible annunciation and 75cd flashing at 1 Hz for visual indication.	No	4			
8	LMR	Supply,Installation,Testing & Commissioning of Addressable Single action <u>Manual pull station</u> having an integrally mounted addressable module that monitors and reports contact status.	No	4			

Sl. No	DSR No.	DESCRIPTION	UNIT	QTY	RATE figures in Rs	Rate in words	AMOUNT in Rs
9	LMR	Supply laying and termination of <u>2 Core x 1.5 Sq.mm cable</u> , Armoured Screened FRLS Twin Twisted PVC Insulated copper cable along with all accessories. Cable shall be terminated in devices and control panel by using properly sized cable gland & locknut. Cable shall be installed on wall/slab by using GI saddles at regular interval as per the specifications.	Mtrs	1000			
		GRAND TOTAL (In figures)					
		GRAND TOTAL (In words)					
Note:Price should be inclusive of all taxes and duties including GST							