

# Tender for Annual Maintenance Contract & Operation of Complete Fire Fighting System at Jeevan Prakash Building, Divisional office, Masoodabad, Aligarh

LIC of India invites tenders for Annual Maintenance Contract & Operation of Complete Fire Fighting System at Jeevan Prakash Building, Divisional office, Masoodabad, Aligarh in two bid system (TECHNICAL BID & FINANCIAL BID )in prescribed Form, from 02.04.2016 to 16.04.2016 at the office of the undersigned. The interested firms who fulfill the eligible criteria , having enlisting with Banks, Central or State Public Sector undertaking, CPWD , Central or State Govt., PSU ,reputed organization may apply in the prescribed form.

Estimated	Min Bank	Avg.	Minimum value of similar nature of work completed
Cost of	Solvency	Annual	during last 4 years
work	(Rs.in Lac)	Turnover	
(Rs. In Lac)		over last 4	
		years	
	19	(Rs.inLac)	
В	С	D	E
4.22 lakh	ONE lakh	TWO lakh	Total value of maintenance works of fire fighting done
			in a year should be more than Rs.2.00 lakh (Two Lakh)

Agencies who desire for the above work should apply to the Sr. Divisional Manager at the address given above in the prescribed tender form by 18.04.2016 upto 15.00 Hrs. Tender Form should be accompanied with Demand Draft of Rs.500/- (Rupees Five hundred Only) drawn in favor of LIFE INSURANCE CORPORATION OF INDIA payable at Aligarh (Non-refundable). Any delay including postal shall not be entertained.

For any further clarification, you may contact on phone no. 0571-2420056, 2420070, +91-9639109294, +91-8057375950.



Sub: Tender for Annual Maintenance Contract & Operation of Complete Fire Fighting System at Jeevan Prakash Building, Divisional office, Masoodabad, Aligarh

This tender consists of two parts, viz., Technical Bid including Instructions to Bidder Terms and conditions and Financial Bid containing expected price only. Separate Technical and Financial bids are to be submitted for each proposal. The Technical Bid, Financial Bid and the Earnest Money Deposit (EMD) should be sealed in envelopes. The use of envelopes will be as under:

- (a) Envelope marked as I: The duly completed Technical Bid alongwith supporting documents be put in this envelope and sealed.
- (b) Envelope marked as II: The duly completed Financial Bid be put in this envelope and sealed.
- © Envelope marked as III: The DD or Bankers Cheque for "Earnest Money

  Deposit" and "Cost of tender document" or the M.R of the required value be put in this envelope and sealed.
- (d) Envelope marked as IV: All the three envelopes shall be placed in envelope marked-IV and sealed (i.e. Envelopes marked as IV, will contain three envelopes marked as I, II & III) and submitted to LIC of India, in sealed condition "Superscribing as "Tender for

Annual Maintenance Contract & Operation of Complete Fire

Fighting System at Jeevan Prakash Building, Divisional office,

Masoodabad, Aligarh "to be opened on 18.04.2016 at 15:30 Hrs...



I / We	_ am / are o	desirous d	of being	intrusted	for	Δηηι	ıa
Maintenance Contract & Operation	of Complete	e Fire Fi	iahtina	System	at '	leev	an
Prakash Building, Divisional office,	Masoodaba	ad. Aliaa	arh and	hereby a	apply	for	the
same. I / We give the following details for you	ur consideration	n.					

SI. No.	Technical bid Criteria	Compliance
1	Name of the firm	
2	Address of Reg. office and Head Office	
3	Telephone Number Office  Fax No.  Email	
4	PAN NoTIN NoVAT Reg. NoSERVICE TAX NO(Copies to be enclosed)	
	PAN NO  TIN NO (If available)  SERVICE TAX REG.NO (If applicable )	
	Labour licencee (If applicable)	*
5	Month and year in which the firm was established in present name .	
6	What is the constitution of firm viz. Sole Proprietor, Partnership, Pvt. Ltd., Public Ltd., etc.	
7	Whether the firm is dealing in Annual Maintenance Contract & Operation of Complete Fire Fighting System.	
8	Contractor has to provide a standby firemen/supervisor in case of absence of any one .	
9	Contractor has to provide trained fireman whose has an experience of fire fighting works.	
10	Has the firm / make been black listed / de listed in the past by any Central or State Govt. Deptt./ Organization	



## LIFE INSURANCE CORPORATION OF INDIA Divisional Office, 2<sup>nd</sup> floor, Jeevan Prakash Building G.T.Road, Masoodabad, Aligarh

11	Should have executed contracts for Annual Maintenance Contract & Operation of Complete Fire Fighting System for Public/ Pvt Sector during the last 3 years (Enclose Copies of work Orders)	
12	Annual Turn Over for last FOUR years (enclose documentary evidence or proof to support figures).	
	2011-2012	
	2012 – 2013	
	2013 - 2014	
	2014 - 2015	
	What evidence of proof is enclosed to support the amounts of yearly turnover	
13	Whether the firm is able to attend rescue operation in case of fire .	
14	Solvency certificate issued by Bank (Enclose Copy )	Rs(Lakh)
15	Any other information the applicant might like to give	

#### **DECLARATION**

I/We certify that the particulars furnished in the enrolment forms are correct and that should it be found that I/We have given a false certificate or that if I/We fail to notify the fact of my/our subsequent amalgamation with another contractor or firm, the Life Insurance Corporation of India may remove my/our name from the list of contractors and any contract that I/We may be holding at the time may be rescinded

AUTHORISED VE OF THE FIRM

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ANNEXURE - I

## A. List of Major Clients and related references:

Name of the clients & contact details	Details of services provided

#### APPENDIX TO THE CONDITIONS OF CONTRACT

NAME OF WORK: Tender for Annual Maintenance Contract & Operation of Complete Fire Fighting System at Jeevan Prakash Building, Divisional office, Masoodabad, Aligarh

S.No	EMD	Rs. 6400/- only ( Rupees Six thousand four hundred only )		
1	Date of commencement	The day on which contractor is instructed to take possession of the site .		
2	Duration for A.M.C period	The contract shall be valid for a period One year at initial instance. It can extended further on mutually agreed ra		
3	Security Deposit :	and terms and conditions.  For tendered amount upto and including Rs.50 lakhs, 5% of accepted tender amount (Rounding of to the next hundred rupees)		
4	Recovery of Security Deposit	Security Deposit shall be deposited by the lowest contractor before entering into A.M.C on which no interest shall be payable by L.I.C.I		
5	Liquidated damages	interest shall be payable by E.I.C.,		
	For contracts having time for Completion	Quantum of liquidated damages per week of delay.		
	Exceeding 6 months	0.50% per week of contract sum subject to maximum 7.5% of accepted contract sum.		
6	Date & Time of opening of Technical Bids	As on the last date of submission of tender i.e. on 18.04.2016 at 15.30 Hrs.		
7	Period of honoring interim certificate	30 ( Thirty ) working days		
8	Period of honoring final certificate	60 (Sixty) days from date of submission of last A.M.C bill.		
9	Contract labour act	Contractor to obtain labour license before commencement of work if applicable.		
10	Insurance Policies	All risks policies covering third party risk for required amount and workmen compensation policy for a minimum required number of workmen before commencement of work.		
11	Release of security deposit Insurance  SD will be refunded after successful completic  A.M.C period & after handing over the installation  good working condition to L.I.C.			
12	Validity of tender	Three months from the date of opening of Technical Bid.		

**NOTE:** The tendered rate should be inclusive of Sales Tax, Octroi, General Tax, Works Contract Tax, Excise, Transport and loading unloading at site etc. **Service tax shall be reimbursed on production of necessary documents.** 

#### **NSTRUCTIONS TO BIDDERS**

- The tender documents will be ready for issuance up to 16.04.2016 on payment of non refundable tender cost of Rs.500/- by deposit of Cash/ Demand Draft / Pay Order in favour of " Life Insurance Corporation of India" payable at Aligarh( excluding Holidays and Sundays).
- The last date for submission of filled in tenders (both technical and financial bids) is 18.04.2016 upto 15.00 PM. The Tender received after the last date and time mentioned above will not be considered.
- 3. The filled in tenders should be submitted to the address given below :

Senior Divisional Manager, Life Insurance Corporation Of India Divisional Office, 2<sup>nd</sup> floor, Jeevan Prakash Building, G.T.Road, Masoodabad, Aligarh

Email: os.aligarh@licindia.com :Website :www.licindia.in

- The technical bid will be opened by the "Tender Opening Committee" on the same day i.e. 18.04.2016 at 3.30 PM in the presence of bidders or their authorized representatives if they are willing to attend. After scrutiny of the technical bids, the date of opening of financial bids will be intimated to those bidders whose offers are found suitable.
- 5. The tender form consists of the following documents. i.e.,
  - i) Instructions to bidders and Terms & Conditions.
  - ii) Technical Bid.
  - iii) Financial Bid.

The offers are to be submitted in Two Bid system i.e., Technical Bid and Financial Bid. The Technical Bid consists of all the required information called for in the questionnaire. The envelope (Envelope 1) shall contain the addressee's details and details of the bidder also.

- 6. The price bid shall contain only financial details i.e., rate and other financial implications.

  The Financial Bids will be placed in the **Envelope II** and superscripted with addressee and bidders details.
- EMD in the form of Cash / Demand Draft / Pay Order in favour of "Life Insurance Corporation of India" payable at Aligarh and the cost of tender fee of Rs.500 /- ( Rupees five hundred only),

The <u>Miscellaneous Receipt</u> of the tender fee deposited or D.D or Pay Order shall be submitted in sealed cover (Marked Envelope – III) superscribing as "Earnest Money Deposit" alongwith the "Technical and Financial Bid". <u>Please note that no interest is payable on the EMDs.</u>

All the three envelopes will be placed in a fourth envelope (Envelope – IV) and sealed and submitted at the address given above. The envelope must be superscripted with "

Tender for Annual Maintenance Contract & Operation of Complete Fire Fighting System at Jeevan Prakash Building, Divisional office, Masoodabad, Aligarh

- 8. Refund of EMD :- EMD shall be refunded as under :
  - (i) EMD of Non Eligible Firms / Agencies shall be refunded within 30 ( Thirty) days from the date of opening of Technical Bid.
  - (ii) EMD of all unsuccessful Firms / Agencies shall be refunded within 30 ( Thirty) days after awarding the contract to the successful bidder.
  - (iii) EMD of lowest bidder shall be refunded separately or adjusted alongwith the S.D.
  - (iv) In case the lowest Firm / Agency refused to carryout the work after issue of acceptance letter, a notice shall be served to them by giving 30 ( Thirty ) days time failing which their EMD amount lying / retained with us shall be forfeited without any further correspondence.

#### Sr. Divisional Manager is the competent authority to refund / forfeit the EMD amount.

- 9. The following documents should be enclosed alongwith the Technical Bid:
  - (a) Attested copies of work order.
  - (b) Performance certificate issued by clients.
  - (c) Income Tax return for the last four years.
  - (d) Certified copy of average annual turn over of the firm / agency.
  - (e) Sales Tax / Service tax /Labour licencee if applicable .
  - (f) PAN Card.
- All the pages of the tender documents are to be signed by the authorized signatory of the tenderer. Any over writing or use of white ink is to be duly initialed by the tenderer. The Corporation reserves the right to reject the incomplete bids and bids lacking in details and without signatures.
  - 11. Tenderers should note that their tenders should remain open for consideration for a minimum period of 45 (Forty five) days from the date of opening of "Technical Bids".
  - 12 Separate tender forms are to be submitted in case more than one tender is offered.



- 13. Tenders received late, not in properly sealed cover, received telegraphically & Conditional or not conforming with the prescribed conditions or not complete in all respects will be rejected.
- 14 If any of the dates mentioned above happens to be a holiday, the transaction will be made on the next working day.
- 15. Issue of tender document does not mean that the Firm / Agency is considered qualified.
  - 16. The Tender Inviting Authority reserves the right to accept any tender or to reject any or all tenders at his sole discretion without assigning reasons thereof. The tender inviting authority does not bind to accept the lowest tender.

Please note that The Sr. Divisional Manager reserve the right to cancel one or many tender without assigning any reason thereof.

### **GENERAL TERMS & CONDITION**

Conditions Of Contract For Annual Maintenance And Operation Of Complete Fire Fighting System At Jeevan Prakash Building, Masoodabad, Aligarh

#### I) GENERAL

- (1) This contract is with a view to keep the entire fires fighting equipments, wet riser, fire pumps & fire panels in healthy serviceable condition to ensure their proper and effective functioning. The contract includes the manning of installation round the clock, so that the personnel on duty keep a constant watch on fire control panels etc.
- (2) We propose to have a contract of fire safety personnel to operate fire-fighting appliances installed in the above buildings.
- (3) The fire safety contractor should be qualified in fire safety and fire fighting equipments from Fire College or he should have the past experience to handle the fire appliances.
- (4) The fire safety agency personnel will wear uniform.

## **II) CONTRACT PERIOD**

- (1) Contract period: Initially for a period of one year
- (2) Contract can be terminated by either party by giving one calendar month clear notice in writing.

## **III) EXTENSION OF CONTRACT**

The contract shall be valid for a period of One year at initial instance. It can be extended further on mutually agreed rates and terms and conditions.

## IV) MAINTENANCE REGULATIONS

- (1) The contractor shall ensure the operation of the installation and their maintenance as Per the rules and regulations of Chief Fire Officer, Aligarh Fire Service. The contractor shall also abide by the requirements of Fire Committee of Zonal office and shall strictly follow their instructions from time to time for operation of fire fighting system in above building.
- (2) The contractor should be available to fire committee as and when required to take instructions on fire matters regarding maintenance and operation services.

#### V) SCOPE

- (1) Providing trained and qualified staff for operation and maintenance of fire fighting systems round the clock.
- (2) Maintenance and operation of: -
  - (a) Wet riser
  - (b) Sprinkler system if available
  - (c) Hose pipes and hose reel drums
  - (d) Fire pumps
  - (e) PMCC and fire alarm panels
  - (f) Oiling of valves and metal polishing
  - (g) Providing gland packing and washers
  - (h) Fire boxes. The fire fighting system at the initial stage of fire i.e. operation of hose reel, hose pipes, portable fire extinguishers till the arrival of fire brigade will be operated by the agency personnel.
  - (i) D.G PUMP SET (Payment for procurement of diesel shall be made by LIC as per requirement on production of cash memo).

## VI) DUTIES

The following duties are also to be performed as required apart from the other jobs

Detailed in the SCOPE: -

- (1)Training of personnel in fire fighting and maintenance of fire fighting systems, which includes Security personnel of the building.
- (2) The duty personnel will operate the portable fire extinguishers to provide the first aid in case of fire.
- (3)To look after the security of the fire fighting equipments.

#### VII) INSPECTION

The contractor is required to carry out weekly, monthly, quarterly servicing and inspection of the installations as required. The relevant documents are to be maintained duly approved by the fire committee and to be kept in the fire control room.

#### VIII) FIRE PERSONNEL

The number of fire personnel required to be employed by the contractor are as under:-

- (1) Supervisor: 1 no. in general shift.
- (2) Fire men: 3 nos

The above personnel are required to be deployed round the clock on shift basis.

(1 nos in general shift, 1 no evening shift, 1 no in night shift)

- (4) Relievers to be deployed by the contractor at their quoted rates and nothing extra shall be paid.
- (5)

#### IX) EARNEST MONEY

The tender shall accompany an earnest money deposit of Rs.6400/- in the form of demand draft only in favor of LIFE NSURANCE CORPORATION OF INDIA. Earnest money deposit can also be paid in cash at our Divisional office; Jeevan Prakash Buiding, Masoodabad, Aligarh and receipt shall be attached with the tender. Tenders not accompanied by earnest money in any of the above forms are likely to be rejected. The earnest money deposit of successful tenderer will be refunded only after receipt of security deposit.

#### X) SECURITY DEPOST

The successful tenderer will have to deposit 5 % of accepted tender amount as security deposit within seven days of the date of receipt of acceptance letter. Failure to pay the security deposit within the prescribed time will result in forfeiture of earnest money deposit. The security deposit will be returned back on handing over the system after the expiry of contract period and no interest will be paid on this amount.

## XI) PRINTED CONDITIONS

Any printed conditions on letterheads or otherwise will not be considered and the contract will be governed solely on the conditions of the contract stipulated herein.

## XII) TAXES OCTROI AND OTHER DUTIES

The rates quoted shall be deemed to be exclusive of Service tax at present and duties and nothing extra shall be paid on this account. Service tax shall be reimbursed on production of necessary required documents.

## XIII) ACQUAINTANCE WITH INSTALLATIONS

The tenderer is advised to visit the building and get themselves acquainted with the installations. However even if tenderer do not visit the site, it will be presumed that they have quoted the rates after visiting the site, and having acquainted themselves with various equipments.

#### XIV) THEFT OF PARTS

The contractor shall be fully responsible for the theft/burglary or any other mischief. .

## XV) LOCAL REGULATIONS

The contractor shall ensure that the operation of the installations and their maintenance is done as per the rules and regulations of Chief Fire Officer, Aligarh Fire Service. The contractor shall also abide by the requirements of the Sr. Divisional Manager /Sr. Divisional Manager ,L.I.C of India ,Aligarhand shall follow their instructions from time to time.

#### XVI) LOG BOOK

The contractor shall maintain a logbook and staff register at site where in entries like general conditions, daily, weekly and periodical duties and maintenance carried out and results achieved should be noted. The drill shall apply for all equipments. The specimen of log book/staff register (to be supplied by contractor) shall be used For various equipments. All the entries in the registers shall be scrutinized and signed Every alternative day by the authorized representative .In case of actuation of fire detectors for testing/actual fire/false alarm the contractor shall inform the officer designated by L.I.C OF INDIA. The contractor will also inform the above said officer of L.I.C in case of any abnormality, malfunctioning in any system and make necessary entries in the log book.

## **XVII) TOOLS AND PLANTS**

The contractor shall provide necessary tools required for carrying out the maintenance/operation.

#### **XVIII) BEHAVIOUR OF STAFF**

The personnel employed for operation and maintenance shall behave properly with our staff and public. They shall be courteous, respectful and shall maintain self-discipline.

#### XIX) CONTRACT LABOUR ACT

The contractor shall pay his employees as per the Contract Labour Act and observe hours of work and conditions of employment according to existing rules under Contract Labour Act. Further it shall be contractor's responsibility to ensure that regular payments to his worker's are made. The contractor shall fully indemnify LIC OF INDIA from any claim under Contract Labour Act.

#### XX) WORKMEN'S COMPENSATION ACT

The contractor shall fully indemnify the LIC OF INDIA from all claims for injury caused to any person whether a workmen or not and LIC shall not be bound to defend any claim got under the worker's compensation Act. The contractor shall take suitable insurance cover for this purpose.

#### XXI) THIRD PARTY RISK

The contractor shall be responsible for all injuries/damages to his men, material and property etc, which may arise from the operations for negligence of himself and/ or his staff and shall fully indemnify the LIC OF INDIA for such expenses, which shall be solely to contractor's own account. The contractor should take suitable insurance cover for this purpose. The contractor has to take necessary insurance cover in joint name of LIC of India and himself for workmen compensation and third party. The contractor shall fully indemnify LIC of India about any claim /damages to their men, material and property and LIC shall not be bound to defend any claim if arises on this account.

## XXII) ARBITRATION

All disputes arising of this contract shall be referred to arbitration. The party seeking the same shall give a notice of 30 days for the appointment of arbitrator for the settlement of the outstanding disputes. The Arbitration shall be conducted in accordance with the provision of the Arbitration and Conciliation Act, 1996 or any statutory modification or Amendments to it from time to time. All disputes arising out of or relating to contract, whether arising during the progress of the work or after completing or abandonment there of shall be referred to a panel of three Arbitrators in which each party shall appoint one Arbitrator and the two appointed Arbitrators shall appoint the third Arbitrator who shall act as the

## LIFE INSURANCE CORPORATION OF INDIA Divisional Office, 2<sup>nd</sup> floor, Jeevan Prakash Building G.T.Road, Masoodabad, Aligarh

presiding arbitrator. The work under contract shall continue during the Arbitration proceedings and no payment due or payable to the contractor shall be with held on account of such proceedings. Any fees payable to Arbitrators shall be shared equally by both the parties.

## XXIII) OTHER TERMS AND CONDITIONS

LIC'S general terms and conditions shall apply in a situation where the conditions incorporated herein do not cover up the particular point/issue under dispute.

## XXIV) RATES QUOTED SHALL INCLUDE

- (1) Deploying skilled and unskilled worker's round the clock and carry out the servicing as detailed in this contract.
- (2)To provide all tools and plants required for carrying out maintenance /servicing as detailed in the contract
- (3)To provide materials required for day-to-day maintenance and operation like grease, gland packing and small pieces of wires etc.
- (4) The charges for replacement of parts and equipment like Panel, hydrants valves, Hose reel drum, valves parts in electric panel, valves, pipe or any other material shall be paid extra. The charges for these items shall be paid on the actual cost of parts (cash memo to be submitted) over which suitable installation charges and 15% profit and overheads shall be allowed. No labour charges shall be paid for small parts such as detectors, M.C.P, Hooters, sprinklers, couplings etc. However the rates of items to be used /replaced are available with us for any work, shall be paid after deduction of 10 % towards labour charges. The decision of Sr. Divisional Manager shall be final in case of dispute in identification of replaceable parts.

## XXV) PENALTIES AND LIQUIDATED DAMAGES

For rendering improper services or causing delays in intimating / carrying out necessary minor repairs, the liquidated damages shall be recovered at the following rates.

## (A) FIRE ALARM SYSTEM/PA SYSTEM

- (1) If the entire main control panel is not set right within 24 hours Rs.500/= per day
- (2) If any of the zone in the panel remains out of order for more than 24 hours Rs.100/= per day



- (3) If PA system is out of order for more than 24 hours Rs.100/= per day
- (4) If the circuitry for any one floor is out of order for more than 24 hours Rs.100/= per day Per floor
- (5) If battery charging unit is out of order for more than 24 hours Rs.100/= per day

## DIESEL GENERATING SET/ELECTRIC DRIVEN MOTOR SET

- (1) If any fire fighting pump is not attended to within 24 hours Rs.100/= per day
- (2) If diesel generating set is not attended to within 24 hours Rs.100/= per day

#### **WET RISER**

(1) If the automatic panels are not attended to within 24 hours Rs.250/= per day

NOTE: WHILE IMPOSING THE LIQUIDATED DAMAGES AS INDICATED ABOVE,

DUE CONSIDERATION SHALL BE GIVEN TO THE TIME FACTOR NEEDED
FOR CARRYING OUT THE REQUIRED REPAIRS.

## XXVI) LOWEST TENDER

Life Insurance Corporation Of India reserves the right to reject the lowest or any other tender without assigning any reasons whatsoever.

## XXVII) VALIDITY

The tender shall be valid for acceptance for a period of 3 months from the last date of receipt of tender.

## XXVIII) INSPECTION REPORT

Contractor has to check the complete installation and submit their report within 15 days of commencement of contract ,to enable to carried out necessary repairs and make the system in healthy working condition . The charges of the same shall be paid extra as applicable.



## (1) GENERAL INFORMATION ABOUT INSTALLATION

- (a) The building is having basement, ground and four floors.
- **(b)** The main control panels and PA system are installed at ground floor the building connected with local panels at individual floors.
- (c) The building is having wet riser running from basement to top floor. One motor driven pump, One diesel engine driven pump, one sprinkler pump and a jockey pump with necessary automatic panel are installed.
- (d) Every floor is provided with exit signage.

## (2) MAINTENANCE AND OPERATION OF WET RISER, SPRINKLER SYSTEM

- (a) Daily physical checking of all floor hydrants, hosepipes, nozzles, pumps and various valves etc.
- (b) To note down daily pressure gauge readings.
- (c) To operate pumps and test automatic systems of all the pumps, once in a week by reducing the pressure in risers.(by discharging the water).
- (d) The oiling and greasing of pumps shall be done once every three months. The gland packing shall be replaced as and when required.
- (e) To check and clean all the electrical contacts in electrical panel once every 15 days to ensure their proper working.
- (f) Checking, operating, oiling and greasing of all hydrants, sluice valves, nozzles, checking/replacing washers etc once every three months. This will also include testing with actual discharge test. These tests may be done by rotation so that all these tests are covered once in three months.

#### (3) FIRE ALARM AND PUBLIC ADDRESS SYSTEM

- (a) DAILY SERVICES:
- (1)To watch constantly the main panel round the clock and take suitable action when signals are received they're upon.
- (2)To attend immediately the defects arising in the installation of fire alarm and PA system.



## (b) <u>SERVICES TO BE CARRIED OUT FORTNIGHTLY:</u>

- (1)To clean the fire control panel (with vacuum cleaner), checks and carry out necessary adjustment and repairs in the main panel.
- (2) Every zone in the panel shall be manually tested for fire and fault indications through the test push buttons provided in the panel.
- (3) Every zone in the panel to be tested for its automatic operation for faults (open and short circuit) fire signals etc. from the end of line of every zonal circuit on respective floors to ensure audio and visual signal is received on central control panel.
- (4)To check entire equipment for public address system and check it's working by manually operating the same.
- (5)To check, test and charge batteries and to check the specific gravity of the acid in the batteries. The replacement of batteries shall be done by LIC when so required.
- (6)To check, clean and carry out necessary adjustment/repairs to battery charging unit to ensure its efficient functioning.
- (7)To check and ensure receiving of signals on the main panel for fire detection and sprinkler system by actually activating the system.

## (C) <u>SERVICES TO BE CARRIED OUT EVERY THREE MONTHS</u>

- (1) The electrical parameters like voltage and current flowing through the conductors at various points shall be checked to ensure that they match with required values.
- (2) The electrical parameters shall also be checked (in a manner as indicated in Para above) when the fire, fault and hooter indicators are automatically given.
- (3) The PA system shall be checked for its manual and automatic operation for alert/evacuate tone and also for speech to tone at every hooter.
- (4) Testing of manual call points by actually activating them by removing glass. The contacts and other parts of call boxes shall be checked, cleaned and necessary oiling and greasing carried out.