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Government Of West Bengal
Office Of The Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata - 16

Memo no.:FSR/0225186238700058 Date: 20-02-2023

From:
Director
Fire Prevention Wing,
West Bengal Fire & Emergency Services

To: MRS LAXMI TANTIA MRS ANITA TANTIA MR HARSH TANTIA SMT SARALA TANTIA
031,96,MOULANA ABUL KALAM AZAD SARANI

Sub: Fire Safety Recommendation for proposed construction of B + G + XIX storied under group occupancy Residential building in the name& style "MRS LAXMI TANTIA MRS ANITA TANTIA MR HARSH TANTIA SMT SARALA TANTIA" at 96, MOULANA ABUL KALAM AZAD SARANI(FORMERLY KNOWN AS NARKELDANGA MAIN ROAD), WARD-31, BOROUGH-III, UNDER KMC, P.S.- PHOOLBAGAN, KOLKATA-700054

Application Reference : KMC (CAF-2022030141) received on 21-01-2023 regarding the Fire Safety Recommendation for proposed construction of B + G + XIX storied under group occupancy Residential building in the name& style "MRS LAXMI TANTIA MRS ANITA TANTIA MR HARSH TANTIA SMT SARALA TANTIA" at 96, MOULANA ABUL KALAM AZAD SARANI(FORMERLY KNOWN AS NARKELDANGA MAIN ROAD), WARD-31, BOROUGH-III, UNDER KMC, P.S.- PHOOLBAGAN, KOLKATA-700054

The plan submitted by you was scrutinized and marked as found necessary from Fire Safety point of view. In returning one set of plan with recommendation, this is issuing Fire Safety Recommendation in favor of the aforesaid building subject to the compliance of the following fire safety measure.

Recommendation:
CONSTRUCTION:
1.The whole construction of the building shall be carried out as per approved plan and conforming by the relevant building rules of local authority.
2.All the compartment walls up to ceiling level having at least four hours fire resisting capacity.
3.All construction materials should be of four hrs. fire resisting capacity. Doors and windows should be of at least two hrs. fire resisting type. Provision of ventilation of the central core duct shall be provided.
4.The interior finish decoration of the building shall be made low flame spread materials conforming IS specification.

OPEN SPACE AND APPROACH:
1.The open spaces surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire Appliances with turning facility.

2.The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting 45M.T.
3.The width and height of the access gate into the premises shall not be less than 4.5 mts. and 5.0 mts. respecting the abutting road.
4.Drive way should be free from any type of obstruction. No parking will be allowed on the drive way.
5.All the Passage way should be kept clear for free access.

STAIRCASE:
1.Both Staircases shall be pressurized including the Firefighting Shaft with a positive pressure of 50 pa. Shall be maintained inside. The mechanism for pressurizing the staircases shall be operated automatically with fire alarm in accordance with I.S. 941:1985.
2.Four hours fire rated glazing to be provided in the staircase wall which exposed to F.R.P

LIFT:
1.Collapsible gates shall not be permitted with the lift cars & shall have solid doors.
2.Lift cannot be used as a means of escape during fire situation. Lifts including “Fire Lift” shall be pressurized with a positive pressure of 25-30 Pa inside the lift lobbies shall be maintained.
3. The mechanism for pressurizing the staircases shall be operated either manually or automatically with fire alarm in accordance with I.S. 941:1985.
4.Fire lift Fire lift shall be provided & in case normal power failure, it shall automatically trip over to alternate power supply. The word “fire lift” shall be conspicuously displayed in fluorescent paints on lift landing door at each floor level.

REFUGE AREA:
1.Refuge areas shall have to be provided on the external wall with cantilever projection or other suitable means at total four (04) nos. provided with the staircase as well as attached to the pressurized firefighting shaft at 22.7m,3.1m, 51.3m, & 65.9m height level in between 5th & 6th , 9th & 10th , 13th & 14th , and 17th & 88th floors with the floor area 15.55sq. m. each enclosed with FCD & the space advantage(9m x15m) at ground floor for FRP for high rise ladder as shown in the plan drawing.
2.The refuge areas shall be of Fire Resisting construction and protected with self–closing F.C.D. at the entrance from the corridors at staircase lobbies.
3.The position of refuge areas shall be such so that they are negotiable by the Fire Service Ladder from the ground level.

PRESSURIZED FIREFIGHTING SHAFT:
One no. Pressurized Firefighting shaft containing lift, staircase to be attached with fire refuge areas & enclosed with the FCD from Basement to the open terrace to be provided as shown in the plan drawing.

BASEMENT:
1.The basement shall be adequately ventilated.
2.The basement shall be protected with auto sprinklers system/hose reel system etc.
3.Mechanical extractors for smoke venting system from basement levels with proper mechanism shall also be provided. The system shall be of such design as to operate on actuation of heat/smoke sensitive detector or sprinkler. It shall also have an arrangement to start it manually.
4.Mechanical extractors shall have an alternative source of supply.

Means of escape:

1.The emergency exit shall not be allowed to lock and key round the clock.
2.The walls of the lift enclosure shall be at least two hours fire resisting type. Collapsible gate shall not be permitted.
3.Firefighting shaft to be provided as shown in the plan drawing.
4.Time of evacuation should be as per IS: 1644-1988.

FIRE FIGHTING WATER:
Underground water reservoir having water capacity of 200000 lt. and overhead water reservoir having capacity of 20000 lt. exclusively for firefighting purpose with replenishing arrangements @ 1000 ltrs/min. preferably from two different sources of water supply shall be provided. The water reservoirs shall have overflow arrangement with the domestic water reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all time.

HYDRANT SYSTEM:
External Hydrant System: IS-13039:1991
The whole area of the building is to be protected by adequate no. of pillar type hydrants system / Ring Main Hydrant of 150 mm internal dia. Pipe line i.e. one pillar hydrant per 1000 sq. meter of area or as per the vulnerability of the place.

Internal Hydrant/ Wet Riser System IS-3844:1989
The building shall be provided with Wet Riser of 150 mm internal diameter pipeline with provision of landing valves at the staircase landings/ half landings at the rate of one such riser for 1000 Sq.m. of floor area. The system shall be so designed that kept charged with water all the time under pressure and capable of discharge 2850 lt./min. at the ground floor level outlet and minimum 900 lt./ min. at the top most furthest outlet. In both cases the running pressure shall not be less than 3.5 kgs. / Sq.cm All other requirement shall conform I.S. 3844-1989.

SPRINKLER SYSTEM:
Entire building including basement should be covered with the sprinkler system as per IS 9972. Sprinkler pump with separate jockey to be installed. Alarm gang to be incorporated in the sprinkler system.

HOSE REEL HOSE
Provision for Hose Reel in conjunction with Wet Riser shall be made at each floor level and conforming the relevant I.S. IS:844-1985 Specifications.

SMALL GEARS
Hose box, 15-meter length delivery hose, gunmetal short branch of half inch dia. one set at each pillar hydrants as IS:903-1993 specification should be installed.

PUMP FOR FIREFIGHTING
Two nos. electric and one diesel driven(stand by) pump of capacity 2850 Lt./min and Two nos. electric pump of capacity 180 lt./min should be installed and arranged in such a manner so that it will start automatically due to fall in pressure by installing as jockey pump as per IS-12469:1988 specification. All the pump shall be designed so as to supply water 900 LPM at a pressure 3.5 kg/cm2 at the furthest point. Electrical and diesel driven arrangement for stand by fire pump shall be ensured. The suction of pumps shall preferably of positive type or in case of negative suction the system shall be wet riser cum down comer with suitable terrace pump with overhead tank.

ELECTRICAL INSTALLATION AND DISTRIBUTION:
1.The electrical installation including Transformers, Switch Gear, Main & Meters etc. and the distribution system of the

premises shall be made satisfying the code of practice for Fire Safety in general building as laid down in I.S. specification 1946-1982. Transformer (if oil type) to be protected with HVWPS/MVWPS as applicable.
2.The vertical and horizontal electrical ducts shall be sealed at each floor level by fire resisting materials.
3.The electrical installation shall be adequately protected with CO2/D.C.P. Fire Extinguishers conforming I.S. specification.
4.All cables should be FRLS type and all wiring along with appropriate gauge and resistance conforming the machineries to be used.
5.All electrical installation should be done in accordance with National Electrical Code and Part- VIII “Building Services” Section-2 “Electrical installation” good practice [4(10)].
6.Arrangement for alternative power supply shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Deep Tube-Well Pump, Fire Alarm System, pressurization system, etc. and also for illuminating the Staircase, Corridors, Lobbies etc. and other places of assembly of the building in case of normal power failure.

DETECTION AND ALARM SYSTEM:
1.Manually operated Electrical Fire Alarm System with at least three numbers of break glass type call boxes fitted with Hooters along with Public Address System at each floor connecting with visual panel board shall be made in Control Room. The Control Room shall be located at entrance of ground floor of the building, other requirements of the system shall be made conforming I.S. 2189:2008.
2.Hooters will be sounded in such a manner so that an operation of a Detectors /Manual Call Point. Hooters will be sounded on the same floor and immediate alternate floor.
3.Public Address System linked between all floors and Control Room shall have to be established.
4.Auto Fire Detection System with the help of Smoke/ heat Detectors shall be installed in entire building area including basement. The system shall also be made in place of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. 2189:2008(as amended) and the code of practice as laid down in the N.B.C Part-IV.
5. Fire Control Room of the premises having direct dialing facility to the local fire service.
6. Both way public address system shall be made available in all floors of the building. The system shall be connected to the Main Control Room.

GAS BANKS’S 6044-2000(if any):
In case of gas bank, the same should be installed conforming S/L 4.1.5 & 4.1.6 of the aforesaid IS code of practice and Fire service license to be obtained for such LPG gas bank.

FIRST AID FIREFIGHTING SYSTEM
First Aid Firefighting arrangement in the style of placing suitable type of portable fire extinguisher, Fire buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with IS 2190-1992.
AIR CONDITIONING SYSTEM (If any):
1.The A.H.U. shall be separated for each floor with the system. Air Ducts for individual floors.
2.Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the Air Conditioning System.
3.The system of auto shut down of A.H.U. shall be incorporated with the Auto Detection and Alarm System.
4.The Air Handling Units room shall not be used for storage of any combustible First Aid Fire Fighting arrangement in the style of portable Fire Extinguishers, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190-1992.

GENERAL RECOMMENDATIONS:

1.Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles.
2.Fire control room to be established at the ground floor.
3.CC TV to be installed in the building.
4.Assembly area shall be specified in the ground floor area.
5.Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
6.Floor numbers and directional sign of escape route shall be displayed prominently.
7.The employees and security staffs shall be conversant with installed Fire Fighting Equipment's of the building and to operate in the event of Fire and Testing.
8.Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipment's installed in the building to keep them in perfectly good working conditions at all times.
9.Mock Fire practice and Evacuation Drill shall be performed periodically with participation of all occupants of the building.
10.A crew of trained Fireman under the experienced Fire Officer shall be maintained round the clock for safety of the building.
A certificate is to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performance of all the Life and Fire Safety arrangements installation of the building.

N.B. : Any deviation and changes the nature of use of the building in respect of the approved plan drawing, without obtaining prior permission from this office, this Revised Fire Safety Recommendation will be treated as cancelled.

Signature Not Verified
Digitally signed by ABHIJIT PANDEY
Date: 2023.02.20 14:31:28 IST

Director
West Bengal Fire & Emergency Services