



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

Memo no.:FSR/0125186221200106

Date: 04-07-2022

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

To: NEW AGE NIRMAN LLP
Niharika 103, 17/1C Alipore Road Kolkata - 700027

Sub: Fire Safety Recommendation for the Existing (A-2, A-3, B-1, B-2, B-3, B-4, C-1, C-2, C-3, C-4, E-1, E-4, E-3, G-1, G-2) and Proposed (A-1 and A-4) Building under Principal Group Occupancy Residential Building of G+IV storied in the name and style of "NEW AGE NIRMAN LLP" at Niharika 103, 17/1C Alipore Road, Kolkata- 700027.

This is in reference to your application no. 0125186221200106 dated 22-03-2022 regarding the Fire Safety Recommendation for the Existing (A-2, A-3, B-1, B-2, B-3, B-4, C-1, C-2, C-3, C-4, E-1, E-4, E-3, G-1, G-2) and Proposed (A-1 and A-4) Building under Principal Group Occupancy Residential Building of G+IV storied in the name and style of "NEW AGE NIRMAN LLP" at Niharika 103, 17/1C Alipore Road, Kolkata- 700027.

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:

A.CONSTRUCTION:

- 1.The whole construction of the existing building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipality Body and shall remain same as per approved plan of this department.
- 2.Any deviation with regard to the construction shall be verified by the concerned building sanctioning authority.
- 3.Material for rapid flame spread categories including untreated wood fibre board etc. shall be not use. The doors and windows preferably shall be made of metal.
- 4.The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
- 5.Provision of ventilation at the crown of the central core-duct of the building shall be provided.
- 6.Arrangement shall have to be made for sealing all the vertical and horizontal ducts by the materials of adequate fire resisting capacity.
- 7.Fire rating test certificate of all interior finished decoration should be submitted to this office before taking occupancy.

B.OPEN SPACE AND APPROACH:

- 1.The open spaces surrounding the building shall be kept clear open to sky and shall conform the relevant building rules as well as permit the easy accessibility and manoeuvrability of the Fire Appliance with turning facility.
2. The approach roads surrounding the building shall be sufficiently strong to withstand the load of Fire Engine weighting 45M.T.
- 3.Drive way should be free from any type of obstruction. No parking will be allowed on the drive way.
- 4.All the Passage way should be kept clear for free access. The abutting road shall permit the accessibility and manoeuvrability of Fire Appliances.
- 5.The width and height of the access gates into the premises shall be less than 4.5---5 M (as marked in the plan drawing) respecting abutting the road.

C.STAIRCASE:

- 1.The staircase of the building shall be enclosed type. Entire construction shall be made of bricks/R.C.C. type having Fire Resisting capacity not less than 4 hours.
- 2.The staircase of the building shall have permanent vents at the top equal to 5% of the cross sectional area of the staircases enclosures and open able sashes at each floor equal to 15% of the said cross section are shall have to be provided in the external walls of the building.
- 3.The position of the staircase shall be made as shown in the plan. Width of the staircases, Corridors and the exit doors shall conform the relevant Building Rules with up-to-date amendments.
- 4.Fire check doors (FCD) at the entrances of all the staircase enclosures as shown in the plan at each floor level shall be provided. The F.C.D. shall be of at least one hour Fire Resisting wire glass window fitted with self-closing type open able in the direction of escape or at the entrance to lift lobby and stair well..
- 5.The entire staircase shall be extended up to terrace of the building and shall be negotiable to each floor without entering into room in all the blocks.
- 6.Considering the staircases are only means of evacuation, emergency lighting arrangement directional exit sign etc. shall be made conforming the relevant I. S. Code in this regards.
- 7.Another Staircase (MS flat stair width of 1.5 MT.) both side shall be installed in block (A-2, A-3, B-1, B-2, B-3, B-4, C-1, C-2, C-3, C-4, E-1, E-4, E-3, G-1, G-2) negotiable to each floor shall be made up to terrace level of the building without entering into room.

D.LIFT:

- 1.The walls of the lift enclosure of the building shall be at least two hours Fire Resisting type. Collapsible gate shall not be permitted.
- 2.In case of failure of normal electric supply, it shall automatically trip over to alternate supply. The lift shall be so wired that in case of power failure, it comes down at the ground level landing to stand still with door open.
- 3.Arrangement shall be provided for extraction of smoke from the lift shaft by incorporation smoke venting system and shall be of such design as to operate on actuation of sprinkler or Fire Alarm. In case of failure of normal electric supply it shall automatically trip to alternate supply.
- 4.All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting to the fire control room of the building.
- 5.All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.

E.ELECTRICAL INSTALLATION AND DISTRIBUTION:

- 1.The electrical installation including Transformers (if any), 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.
- 2.The vertical and horizontal electrical supply 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 electrical installation viz. Transformers (if any), Switch Gear, H.T rooms shall be protected with both auto detection and suppression system as per suitability.
- 5.Electrical distribution system of the building shall be made in the form of concealed wiring or in heavy gauge M.S. conduit continuously bonded to the earth. Cables shall be I.S. marked and preferable be of F.R.L.S. categories. M.C.B. shall be installed in electrical circuit to avoid electrical fire hazards.
- 6.Alternative Power Supply : 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 etc. and also for illuminating the Staircase, Corridors, Lobbies etc. and other places of assembly of the building in case of normal power failure.

F.FIRE FIGHTING WATER:

1. The Underground water reservoir having water capacity of 200,000 Ltrs. (Shown in the plan) exclusively for fire fighting purpose shall be provided. Overhead water reservoir having capacity of 5,000 Ltrs. (Shown in the plan) exclusively for fire fighting purpose with replenishing arrangements @1000 Ltrs./Mins shall be provide in the terrace of all the blocks of the building. Preferably from two different sources of water supply shall be provided.
2. 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.
3. Provision of placing Fire Appliances on the side of Semi-underground water reservoir to be made to draw water in case of emergency. Provision of necessary manhole shall be made on the top of the reservoir as per specification.
4. Provision of Fire Service inlet shall be installed on the entrance of the building.

G.FIRE PUMP :

- 1.The main fire pump shall be installed which discharge should not be less than 1620 Ltrs./min and pressure at the top and furthest hydrant not less than 3.5 Kgs/SQ.cm.
- 2.A Standby Pump of capacity of 450 LPM shall be provided on alternative source of supply preferable be of diesel driven type in all the blocks. All other requirements shall conform I.S. Specification 3844-1989.
- 3.All the pumps shall be incorporated with both manual and auto starting facility with alternate power supply.
- 4.Fire Pump room shall be provided in the place as shown in the plan drawing or suitable place without obstructing driveways.

H.FIRE FIGHTING SYSTEM / HYDRANT SYSTEM:

- 1.The building shall be provided with Down Comer along with Hose Reel Hose connected to terrace tank through the terrace pump capacity of 450 LPM and provided one 100 mm. internal diameter pipe line with provision of landing valves at the staircase landing / half landing at the rate of one such Riser for 1000 SQ. MT. of floor area. The system shall be so designed that shall be kept charged with water all the time under pressure and capable to discharge 1620 Ltrs./min at the ground floor level outlet and minimum 450 Ltrs./min at the top most outlet. In both cases the running pressure shall not be less than 3.5 Kgs/cm². All other requirements shall conform I.S. 3844-1989.

2.Provision of Hose Reel unit on swivelling drum in conjunction with Down Comer near each landing valves in all the blocks shall be made conforming the relevant I.S. Specifications.

3.Adequate numbers of Yard Hydrant shall be installed surrounding all the blocks in accordance with relevant I.S. specification.

I.AUTO DETECTION AND ALARM SYSTEM:

1.Manually operated Electrical Fire Alarm System with at least one numbers of break glass type call boxes fitted with Hooters at each floor connecting with visual panel board shall be made in Control Room. The Control Room shall be located at the entrance of Ground Floor of all the block of the building, other requirements of the system shall be made conforming I.S 2189--1988.

2.Hooter will be sounded in such a manner so that an operation of Manual Call Point /Hooters will sounded on the same floor & immediate alternate floor in all the blocks.

3.Both ways Public address system linked between all floors and control room shall have to be incorporated in all the blocks of the building.

J.AIR CONDITIONING SYSTEM : (in case of centralized air conditioning system)

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 materials.

5.Escape route like staircase, common corridors, lift lobby etc. shall not be used as return air passage.

6.Wherever the ducts pass through Fire wall of floors, the opening a rounding the ducts shall be sealed with Fire resisting materials such as asbestos rope vermiculite concrete etc.

7.The metallic ducts shall be used even for the return air instead of space above the false ceiling.

8.The material used for insulating the duct system (inside or outside) shall be of non-combustible material glass wool shall not be wrapped or secured by any materials of combustible nature.

9.Air duct services main floor area, corridors etc. shall not pass through the staircase enclosures.

10.When the automatic Fire alarm operates the respective air handling units of the air conditioning system shall automatically switched off.

11.The air filters for air handling units shall be of non combustible materials.

12.Inspection panel shall be provided in the main trucking to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.

13.No combustible materials shall be fixed nearer than 15cm to any duct unless such duct properly enclosed and protected with non combustible material (glass wool or Spun wool with neoprene facing enclosed and wrapped with aluminium sheeting) at least 3.2m thick and which would not readily conduct heat.

K.FIRST AID FIRE FIGHTING SYSTEM:

1.First Aid Fire fighting arrangement in the style of placing suitable type 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.

L. L.P.G BANK & KITCHEN:

- 1.L.P.G. (Liquefied Petroleum Gas) Bank shall be constructed as per Gas Cylinder Rules-2004 and I.S. 6044 maintaining adequate safety distance between an installation of same and any building, public place, roadways and other surroundings. Anti static mastic bituminized flooring shall be made inside the L.P.G. bank.
- 2.Cross ventilation shall be provided at ground level and at the top and the ventilators shall be covered by two layers of non-corrugible metal wire mesh.
- 3.L.P.G. Bank shall never be used as store room of other articles.
- 4.Gas Sensor shall be installed inside the L.P.G. Bank while the isolation valve or regulating devices shall be retained outside the Bank for easy operation on any operation.
- 5.No electrical connection, wirings, fittings shall be installed inside the L.P.G. Bank
- 6.The L.P.G. Bank shall be protected either by Auto Modular (D.C.P. Type) or by portable D.C.P. fire extinguisher of adequate capacity and sand buckets with dry sand.
- 7.L.P.G. Bank shall be constructed of brick wall and R.C.C. Asbestos roofing having three sides closed and one side provided with open able C.I/Steel double leaf door which will open outwardly.
- 8.Checking, testing and proper maintenance of L.P.G. installation, L.P.G. manifold, Pipe lines shall be checked by expert (authorized) agency and a certificate of safety to that effect to be endorsed to this department in due course.
- 9.No other L.P.G. oven with separately loose, L.P.G. cylinder will be used inside the kitchen where L.P.G. supply is being maintained from L.P.G. Bank through L.P.G. manifold.

M. 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 Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- 3.Floor numbers and directional sign, showing the nearest exit Refuge Area, Fire Points etc. shall have photo luminescent signals at each floor of all blocks of building including shall be made available conforming the relevant I.S. Specification.
- 4.Provision of emergency Illuminating exit shall be made at all floor levels of building conforming the I.S. Specification.
- 5.The employees and security staffs shall be conversant with installed Fire Fighting Equipments of the building and to operate in the event of Fire and Testing.
- 6.Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments installed in the building to keep them in perfectly good working conditions at all times.
- 7.A crew of trained Fireman shall be maintained round the clock for safety of the building.
- 8.Mock Fire practice and Evacuation Drill shall be performed periodically with participation of all occupants of the building.
- 9.Haphazard indoor or outdoor storage shall be avoided.
- 10.Contract Number of all the Emergency Services and Departments shall be hanged or display at conspicuous places of all the floors and also inside office room/Reception Counter/Fire Control Room.
11. Drill must be acquainted with evacuation passage of escape route by practicing as a drill with all occupants as a drill every month as a special duty and records of which must be kept in their custody.
- 12.The Department of Fire and Emergency Services, Government of West Bengal shall not take any responsibility in respect of any legal dispute if pending or arises about the title of land/property.

On compliance of all the above Life and Fire Safety Recommendation, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of all the installation, Fire Safety Certificate in favour of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of 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 Fire Safety Recommendation will be treated as cancelled.

Director
West Bengal Fire & Emergency Services

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