



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

Memo no.:FSR/0125186211100666

Date: 18-11-2021

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

To: Mr. Kamal Kanti Khanra
Plot no - 35-1111, Hidco Bhawan, Biswa Bangla Sarani, 3rd, Rotary. Kolkata - 7000156

Sub: Fire Safety Recommendation for proposed construction comprising 6nos LIG Block of G+XIX storied [i.e. LIG-1 (Block- A1), LIG-2 (Block- A2), LIG-3 & 4 (Block-B), LIG-5 (Block- A3), LIG-6 (Block- A4)] and 1no EWS Block of G+XIV storied under group Residential Building at Plot No. IIC/BLK- 14, 15, 16 & 17, Action Area - IIC, Police Station – ECO Park, Newtown, Kolkata - 700161.

This is in reference to your application no. 0125186211100666 dated 27-08-2021 regarding the Fire Safety Recommendation for proposed construction comprising 6nos LIG Block of G+XIX storied [i.e. LIG-1 (Block- A1), LIG-2 (Block- A2), LIG-3 & 4 (Block-B), LIG-5 (Block- A3), LIG-6 (Block- A4)] and 1no EWS Block of G+XIV storied under group Residential Building at Plot No. IIC/BLK- 14, 15, 16 & 17, Action Area - IIC, Police Station – ECO Park, Newtown, Kolkata - 700161.

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 proposed building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipal Body.
- 2.The interior finish decoration of the building shall be made of low flame spread materials conforming to I.S. specifications.
- 3.Provision of ventilation at the crown of the central core-duct of the building shall be provided.
- 4.Arrangements shall have to be made for sealing all the vertical & horizontal ducts by the materials of adequate Fire resisting capacity & the doors of service ducts / shafts of 2hr. Fire rating.

B.OPEN SPACE & 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 road shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
- 3.The width and height of the access gates into the premises shall not be less than 5.0 and 5.5 M respecting abutting the road.

C.STAIRCASE:

- 1.The staircase of the building shall be enclosed type. Entire construction shall be made of bricks / RCC type having Fire Resisting Capacity not less than 4 hours.
- 2.The staircase of the building shall have permanent vents at the top and open able sashes at each floor level in the external wall of the building.
- 3.The width of the Staircase shall have to be made as shown in the plan. Corridors and the exit doors shall conforming the relevant building rules.
- 4.Fire & Smoke doors at the entrance of staircase enclosures as shown / marked in the plan at each floor level shall have to be provided. The F.C.D. shall be of the least two hour Fire resisting Wire Glass Window fitted with self closing type openable in the direction of escape.
- 5.Pressurization shall have to be provided as shown in the plan.

D.LIFT:

- 1.The walls of the lifts enclosure shall be at least two hours Fire Resisting type.
- 2.Collapsible gate shall not be permitted.
- 3.In case of failure of normal electric supply, it shall automatically trip of alternate supply and also shall have manually operated change over facility. Alternatively, the lift shall be so wired that in case of power failure, it comes down at ground level stands still with door open.
- 4.All the lifts of the building shall be designed as high speed "FIRE LIFT" and shall be conspicuously indicated / marked.
- 5.Pressurization shall have to be provided as shown in the plan.

E.REFUGE AREA:

- 1.The Refuge areas shall be provided on the external wall as cantilever projection as shown in plan drawings.
- 2.The refuge areas shall be of Fire resisting construction and protected with self-closing F.C.D. at the entrance from the corridor or the staircase landings.
- 3.The position of refuge areas shall be such that they are negotiable by the Fire service Aerial Ladder from the ground floor.

F.FIRE FIGHTING WATER :

Under Ground Water Reservoir for fire of 258,000 ltrs capacity and Under Ground Water Reservoir for domestic of 802,000 ltrs capacity are shall have to be interconnected to fulfill the requirement for Fire Fighting purpose and Over Head Water Reservoir of 15,000 Ltrs capacity of each LIG Block and 10, 000 ltrs of EWS Block exclusively for Fire Fighting purpose with replenishing arrangements @2000 ltrs/min preferably from two different sources of water shall have to be provided. The water reservoirs shall have overflow arrangement to prevent stagnancy of water. The water reservoirs shall be kept full at all time.

G.WATER LAYOUT SYSTEM:

1.The building shall be provided with separate Wet Risers for sprinkler & hydrant of 150 mm. internal diameter Pipe Line each 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 shall be kept charged with Water all the time under pressure and capable to discharge 2850 ltrs/min. at the ground floor level outlet and minimum 900 ltrs/min. at the top most and farthest outlet. In both cases the running pressure shall not be less than 3.5 Kgs/Sq.cm. All other requirements shall be conforming I.S. 3844 – 1989.

2.Provision for Hose Reel units on swiveling drum in conjunction with Wet Riser shall be made near each landing valves.

3.Ring Main with provision of adequate numbers of Pillar type Yard Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.

4.Provision of atleast two nos Fire Service Inlet shall be made as per relevant I.S specification.

H.FIRE PUMP:

i.Provision of the Fire Pumps shall have to be made to supply water at the rate-designed pressure and discharge into the Water based system which shall be installed in the respective pump room for Residential buildings.

ii.One such pump shall always be kept on stand-by of diesel driven type.

iii.Provision of separate pump for sprinkler system to be made to keep the Water based system under pressurized condition at all the time and shall be installed.

iv.Provision of separate Jockey Pumps shall also have to be made to keep the Water based suppression systems i.e. hydrant and sprinkler system separately under pressurized condition at all the time. All the pumps shall be incorporated with both manual and auto starting facilities. 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. The Fire Pumps shall be multi stage and multi outlet creating pressure zones. The Number and type of fire pumps shall be as per provision of N. B. C. Part – IV, 2016.

I.Sprinkler Installation:

The automatic sprinkler installation shall be provided in all floor areas at 6nos LIG blocks and in Community Hall, Games room, Multipurpose hall, spaces for community area at EWS block and alarm gang to be incorporated along with the sprinkler system. Sprinkler test line shall have to be provided as per suitability.

J.Electrical Installation & Distribution:

- 1.The electrical installation including transformers, Switch Gears, 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.Electrical distribution system shall conform all the requirements as laid in I. S. 1646-1982.
- 3.The electrical installation shall be adequately protected with automatic CO2/D.C.P.
- 4.All electrical installation viz. Transformer Switch Gear L. T., H. T. rooms shall be protected with both auto detection and suppression systems as per suitability.
- 5.Alternative Power Supply :
Arrangements shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Pump for deep Tube-well, Fire Alarm System, Lifts, pressurization etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building incase of normal power failure.

K.INTELLIGENCE ANALOGUE SYSTEM:

- 1.Auto Fire Alarm System with analogue addressable smoke / heat detectors as per suitability shall be installed in all floor areas at 6nos LIG blocks and in Community Hall with Kitchen, Games room, Multipurpose hall, spaces for community area at EWS block.
- 2.Addressable analogue manual call boxes incorporating with sounders shall be installed in all floors area of the building in such a manner that maximum travel distance shall not be more than 22.5 m in order to reach any of the call point.
- 3.Micro Processor based fire alarm panel shall be installed and all shall also be connected with main panel at the Fire Control Room of the premises having direct dialing facility to the local fire service unit.
- 4.Both way public address systems & talk back systems linked between all floors and Control Room. Shall have to be established.
- 5.All the installations shall also be satisfy the I.S. specifications 2189 (as amended) and the code of practice as laid down in the N.B.C. Part-IV, 2016.
- 6.C. C. Camera & Public Address System:- Public address system linked between all floors and Fire Control Room shall have to be established. Fire Control Room: i. A well designed Fire Control Room with C.C.T.V. and Fire Control Panel and monitoring 24X7. Preparation of Emergency Evacuation: ii. There is need to have a clear policy and proper implementation of emergency evacuation measures.

L.FIRSTAID FIRE FIGHTING SYSTEM:

First Aid firefighting 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. 2190-92.

M.GENERAL RECOMMENDATIONS:

- 1.Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.

2. Floor numbers and directional sign of escape route shall be displayed prominently.
3. The occupancy and security staff shall be conversant with installed Fire Fighting equipments of the building and to operate in the event of Fire and Testing.
4. 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.
5. A crew of trained fireman under an experience fire officer shall be maintained round the clock for safety of the building.
6. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
7. The certificate has 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 and installation of the building.

On compliance of all the above Fire and Life safety recommendations, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of 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 drawings, 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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