

**GOVERNMENT OF WEST BENGAL
OFFICE OF THE DIRECTOR GENERAL
WEST BENGAL FIRE & EMERGENCY SERVICES
13-D, MIRZA GHALIB STREET, KOLKATA- 700 016**

Memo No.: WBFES/ 1104 /18/Kol-RB/817/17(817/17)

Date: 23.02-18

**From : Divisional Fire Officer
Fire Prevention Wing(FP-I)
West Bengal Fire & Emergency Services**

**To : Mr. Sushil Jhunjunwala
Director,
Himanga Mercantiles Pvt. Ltd.,
Eco Station, Aajkal IT unit no. 903,
9th Floor, Block-BP, Salt Lake, Sector-V,
Kolkata- 700091.**

Sub.: Fire Safety Recommendation for proposed Residential complex comprising 9 nos. G+VI storied Residential blocks as block A,B,C,D,E,F,G,H & J and 1 no. facility block (Commercial: G+III storied) at the premises no. 91/1, Jessore Road(South), ward no. 26, Kolkata.

This is in reference to your letter No. Nil received dated 02.06.2017, regarding Fire Safety measure for proposed Residential complex comprising 9 nos. G+VI storied Residential blocks as block A,B,C,D,E,F,G,H & J and 1 no. facility block (Commercial: G+III storied) at the premises no. 91/1, Jessore Road(South), ward no. 26, Kolkata.

The plan drawing submitted by you was scrutinised and marked as found necessary from Fire safety point of view. In returning one set of plan with recommendation, this office is issuing Fire safety Recommendations in favour of the aforesaid building.

Enclo.:

1. One set of plan.
2. Recommendation placed
In this file.

**Divisional Fire Officer
Fire Prevention Wing(FP-I)
West Bengal Fire & Emergency Services**

Recommendations:

A) Construction part:

- i) The whole construction of the building shall be carried out as per approved plan and conforming by the relevant building rules of local authority.
- ii) All the compartment walls up to ceiling level having at least two hours fire resisting capacity.
- iii) All construction materials should be of two hrs. fire resisting capacity.
- iv) Doors and windows should be of at least two hrs. fire resisting type.
- v) Provision of ventilation of the central core duct shall be provided.
- vi) The interior finish decoration of the building shall be made low flame spread materials conforming IS specification.
- v) The roads and Side Open Spaces are to be minimum 45 MT withstand capacity.

B) Open space & approach:-

- i) The approach roads shall be sufficient to permit the accessibility and maneuverability of fire appliance to turning facility and to be strong enough to withstand the load of fire engine weighting up to 45 metric ton.
- ii) The width and height of the access gate into the premises shall not be less than 4.5 meters 5 meters respectively abutting the roads.
- iii) The driveway shall not be used as car parking.

C) Staircase:

- i) The width of the staircase, corridors and exit doors shall conform the relevant building rules with up to date amendments.
- ii) All staircase shall be extended up to terrace of the building and shall be negotiable to each floor.
- iii) FCDs shall be installed as per the approved plan drawing.

D) Lift:

- i) The walls of the lift enclosure shall be at least two hours Fire resisting type. Collapsible gate shall not be permitted.
- ii) One of the lift shall be designed for Fire Lift. The word "FIRE LIFT" shall be conspicuously written at ground floor.

E) Means of escape:

- i) The emergency exit shall not be allowed to lock and key round the clock.
- ii) The walls of the lift enclosure shall be at least two hours fire resisting type. Collapsible gate shall not be permitted.
- ii) Time of evacuation should be as per IS: 1644-1988.

F) Electrical installation:

- i) 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)]
- ii) • All cables should be FRLS type and all wiring along with appropriate gauge and resistance conform the machineries to be used.
- iii) Electrical installation should be tested by the licensed electricians periodically.
- iii) Electrical installation shall be adequately protected with CO2/DCP or Medium velocity Water Spray Projector system.

G) Service ducts/ shaft :

Service ducts & shaft shall be enclosed by walls of 2 hrs. & door 1 hr fire rating. All such ducts shall be properly sealed & fire stopped .at all floor level, vent opening at the top of the service ducts shall also to be provided

H) Public address System:

- i) Analogue addressable intelligent automatic detectors (multi grade type) with hotter along with response indicator above false ceiling in accordance with is 2189 or NFPA 72 shall be installed throughout the building.
- ii) M.C.P shall also be installed near staircases, escape route and at all strategic locations.
- ii) • 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.
- iii) All the installation shall also be satisfied the IS specification 2189 (as amended) and the code of practice as laid down in the N.B.C Part-IV.

I) Fire fighting water:

The building should be provided with 2,00,000 liters capacity of underground water reservoir with replenishing arrangement @ 1000 liters per minutes. The underground water reservoir location should be such so that fire service vehicle may get access and draw water from the said reservoir.

J) Small gears: IS:903-1993:-

Hose box,15 meter length permoline delivery hose, gunmetal short branch of half inch dia. one set at each pillar hydrants should be installed.

K) External Hydrant System:- IS-13039:1991-

The whole area of the building is to be protected by adequate no. of pillar type hydrants system (at 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.

L) 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.mtr. of floor area. The system shall be so designed that kept charged with water all the time under pressure and capable of discharge 2850 ltrs./min. at the ground floor level outlet and minimum 900 ltrs./ min. at the top

most furthest outlet. In both cases the running pressure shall not be less than 3.5 kgs./ Sq.mtr.. All other requirement shall conform IS: 3844-1989.

M) Sprinkler Protection IS- 15105:2002: -

The automatic sprinkler system shall be provided at Basement area, all floors of facility and commercial block including covered podium etc.. Alarm gang to be incorporated along with the sprinkler system.

N) Pumps for fire fighting installation IS-12469:1988:-

i) Two electric (one for Hydrant and one for sprinkler) and one diesel driven pump (Stand-by) of capacity 2850 litre/min with Two electric pump as Jockey separate for Hydrant and Sprinkler of capacity 180 litre/min should be installed and arranged in such a manner so that it will start automatically due to fall in pressure.

ii) All the pump shall be designed so as to supply water 900 LPM at a pressure 3.5 kg/cm² at the furthest point.

iii) Diesel driven arrangement for stand by fire pump shall be ensured.

O) First Aid Fire Fighting 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.

P) Alternative power supply:

Arrangement shall have to be made to supply power with the help of a generator to operate at least the fire pump, fire alarm system and also for illumination in case of normal power failure.

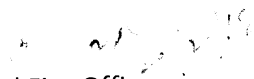
General recommendation:-

1. Telephone nos. of all emergency services, fire notice / fire order shall be pasted at all strategic locations on each floor of the building.
2. Floor number & directional sign towards the routes of escape during emergency shall be provided at all conspicuous places on each floor.
3. A fire control room on entrance of the ground floor with communication system (P.A system & talk back system) to all floors, details of floor plans, building management system shall be made. The control room shall have facilities to detect the fire on any floor through indicator board connections .the control room shall be monitored round the clock basis.
4. There shall be a properly trained fire fighting crew under the supervision of a qualified & experienced fire officer. All crew members & security staff shall be

- conversant with the installed fire fighting system & equipments & to operate them efficiently in case of any fire emergency.
5. The LPG / other gases supply to the building shall be from separate gas bank in another shed built as per norms away from the main building on ground level in accordance with IS 6044:2000/gas cylinders rules 2004.
 6. Arrangement shall be made for checking, testing & proper maintenance of all inbuilt fire & life safety system & equipments at recommended periodical intervals by competent agency.
 7. Good housekeeping to eliminate fire hazards both inside & outside the building shall be strictly maintained. Under no circumstances the corridors, routes of escape, lobbies of staircases and landings be blocked by waste / refused materials in order to ensure easy & smooth evacuation of the occupants as well as free access / movement of fire fighting team during fire emergency.
 8. Lightning arrestor shall be installed on the roof top to protect the building from thunder crash.
 9. Each year 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 and installation of the building.

This shall be treated as Fire Safety Recommendation. On compliance of all the above Fire 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 drawing, without obtaining prior permission from this office, this Fire safety recommendation will be treated as cancelled.


Divisional Fire Officer
(FP-wing)
West Bengal Fire & Emergency Services