



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

Memo no.:FSR/0125186231400193

Date: 28-07-2023

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

To: Shrachi Realty Pvt. Ltd.
OLIVIA GARDEN, Shrachi Tower, 8Th floor 686 Anandapur,E M Bypass

Sub: Fire Safety Recommendation of a proposed construction of one no. G+XVIII storied Residential Building & one no. G+I storied club Building under group Residential Building in the name & style "Olivia Garden, Shrachi Realty Pvt.Ltd."at Rabindra Najrul Sarani, Dag no.- 3,5,6,7,8,9,10,11 &12 JL No. 162, Mouza-Chaitanyapujarirchak, P.S-Bhawanipur, Dist- PurbaMedinipur, Pin-721637.

This is in reference to your application no. 0125186231400193 dated 19-06-2023 regarding the Fire Safety Recommendation of a proposed construction of one no. G+XVIII storied Residential Building & one no. G+I storied club Building under group Residential Building in the name & style "Olivia Garden, Shrachi Realty Pvt.Ltd."at Rabindra Najrul Sarani, Dag no.- 3,5,6,7,8,9,10,11 &12 JL No. 162, Mouza-Chaitanyapujarirchak, P.S-Bhawanipur, Dist- PurbaMedinipur, Pin-721637.

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 ware house shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipality/local Body.
- 2.The floor area of the basement exceeds 3000m² shall be suitably compartmented by separation walls/water curtain up to ceiling level having two hours fire resisting capacity.
- 3.The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
- 4.Provision of ventilation at the crown of the central core-duct of the building shall be provided.
- 5.Arrangement shall have to be made for sealing all the vertical and horizontal ducts by the materials of adequate fire resisting capacity.

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.All Principal staircases from ground to top floor shall be pressurized as marked in the plan. A positive pressure of 25-30 Pa. shall be maintained inside the staircases. Pressurization shall be maintained round the clock.
- 2.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.
- 3.The staircases of the building shall have permanent vents at the top equal to 5% of the cross sectional area of the staircase enclosures and open able sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.
- 4.The width of the staircases and corridor and travel distance of different categories shall have to conform the relevant building rules.
- 5.Fire and Smoke check doors at each the entrances of all the staircase enclosures at each floor level shall be provided. The FCD shall be of at least one hour fire resisting wire glass window fitted with self-closing type open able in the direction of escape.
- 6.Considering the staircase are only means of evacuation, emergency lighting arrangement direction, exit, signet. shall be made conforming the relevant I.S Code in this regards.

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.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.
- 4.Lift lobby shall be enclosed with FCD.

REFUGE AREAS:

- 1.Three (3) nos. Fire Refuge Area shown at the level +23.395M, +35.595M&+47.795 M, enclosed with FCD.
- 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.
- 4.Refuge Area should be made at the rate of 0.3 m² per person to accommodate the occupants of two (2) consecutive floors. And should not be less than 15 m².

FIRE FIGHTING WATER:

Underground water reservoir having water capacity of 203200 lt. & O.H.W.R. capacity of 12000 lt. shown in plan drawing exclusively for firefighting purpose with replenishing arrangements @ 1000 lt./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 & PUMP:

External Hydrant System: IS-13039:1991

1.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.

2.Internal Hydrant/ Wet Riser System IS-3844:1989

The all building shall be provided with Wet Riser of 100 mm internal diameter pipeline with provision of twin outlet 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 2280 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.

PUMP FOR FIREFIGHTING

Two nos. electric and one diesel driven preferably (stand by) pump of capacity 2280 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 & manual 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.

SPRINKLER INSTALLATION:

The automatic sprinkler system to be provided entire Car parking area, Banquet Hall of the building with Sprinkler head, alarm Gong to be incorporated to the sprinkler system and should be followed the NBC part –IV with up to date amendment.

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 & other service duct 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 adequate numbers of break glass type call boxes fitted with Hooters along with Public Address System at the basement & Community hall 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. 2189-1988.

2.Auto Fire Detection System with the help of Heat/ Smoke Detectors which are suitable shall be installed in all places of below and preferably above false ceiling of the building area including basement & banquet hall. 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. 2189-1988.

3.The suppression system shall be made with Fire Extinguishers and total flooding system with CO2/F.M.-200 particularly in Computer, Electrical processing and Data Room and in all rooms of irreplaceable articles as well as suitable of inflammable materials.

4.Hooters will be sounded in such a manner so that an operation of an any Detector or Manual Call Point.

5.Public Address System in both ways to be linked between all parts of the entire area and Control Room shall have to be established.

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. Dampers shall operate automatically switch off the air handling fans. Manual operation facility shall also be provided.

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.

5.Escape routes like staircase, corridor, lift lobbies, etc. shall not be used as return air passage.

6.The ducting shall be constructed of substantial gauge metal in accordance with good practice.

7.Where the ducts pass through fire wall or floors, opening round of the ducts shall be sealed with materials having fire resistance rating of the compartment. All other should be followed the NBC part –IV with up to date amendment.

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.

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.

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.Time of evacuation should be as per IS: 1644-1988.

4.Emergency lighting shall be powered from an independent source for illuminating escape route, corridor, exit, etc.

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& to be protected as per norms.

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.Suitable no. trolley mounted foam extinguishers to be provided at the diesel storing, etc. storing area as suitable.
- 3.Fire control room to be established at the ground floor.
- 4.CC TV to be installed in the building.
- 5.Assembly area shall be specified in the ground floor area.
- 6.Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- 7.Floor numbers and directional sign of escape route shall be displayed prominently.
- 8.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.
- 9.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.
- 10.Mock Fire practice and Evacuation Drill shall be performed periodically with participation of all occupants of the building.
- 11.A crew of trained Fireman under the experienced Fire Officer shall be maintained round the clock for safety of the building.

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

Director
West Bengal Fire & Emergency Services

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