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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/0125186201301903 Date: 15-02-2021

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

To: Sajal Kumar Bose (Constituted Attorney) on behalf of Park Real Con Pvt.Ltd.
2, KONA EXPRESWAY, WARD NO-46, BOROUGH NO-7, JL. NO-110, MOUZA-UNSANI, P.S.-JAGACHA, DIST.-HOWRAH, UNDER HOWRAH MUNICIPAL CORPORATION

Sub: Fire Safety Recommendation for the proposed three nos. of towers as Tower -1, Tower -2 , Tower -3 of G + XX , one no. tower as Tower - 4 of G + XIX & one no. club house of G + I storied under principal occupancy Residential building at 2, KONA EXPRESWAY, WARD NO-46, BOROUGH NO-7, JL. NO-110, MOUZA-UNSANI, P.S.-JAGACHA, DIST.-HOWRAH

This is in reference to your application no. 0125186201301903 dated 13-12-2020 regarding the Fire Safety Recommendation for the proposed three nos. of towers as Tower -1, Tower -2 , Tower -3 of G + XX , one no. tower as Tower - 4 of G + XIX & one no. club house of G + I storied under principal occupancy Residential building at 2, KONA EXPRESWAY, WARD NO-46, BOROUGH NO-7, JL. NO-110, MOUZA-UNSANI, P.S.-JAGACHA, DIST.-HOWRAH

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 constructed as per approved plan drawings conforming the relevant building rules of local Corporation/Municipality Body.
2.The interior finish decoration of the buildings shall be made low flame spread materials conforming I.S. specifications.
3.The floor area exceeds 750 M2 shall be suitably compartmented having four hours resistance capacity each block.
4.Provision of ventilation at the crown of the central core-duct of the building shall be provided each block.
5.Arrangement shall have to be made for sealing all the vertical and horizontal ducts by the materials of adequate fire resisting capacity each block.
Doors and windows should be of at least two hrs. fire resisting type.

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OPEN SPACE AND APPROACH:

1.The open spaces surrounding the building campus 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 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.

All the Passage way should be kept clear for free access.

STAIRCASE:

1.The staircases of the building shall be enclosed type in the each block. 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 and openable sashes at each floor level in the external walls of the building.

3.The width of the staircase shall be made as shown in the plan drawing. Corridors and the exit doors shall conform the relevant Building Rules to up to date amendment.

4.The staircases shall be extended up to open terrace in the each block and shall be negotiated to each floor & each other & FCD shall be installed as shown in the plan drawing.

5.The refuse areas in the each block to be protected with the FCD with self-closing type openable in the direction of escape.

6.The pressurized firefighting shaft as shown in the each block of the plan drawing to be maintained positive pressure as per NBC part –IV.

LIFT:

1.The walls of the lift enclosure shall be at least two hours Fire Resisting type.

2. The lift in the firefighting shaft shall be designed at high speed " Fire Lift" & conspicuously indicated in the each floor in the each block.

3.The electrical power shall be from separate supply mains in the building for the " Fire Lift" as well as pressurized firefighting shaft & the power supply shall be tripped to the alternative power supply in case of failure of normal supply on the emergency situation.

4. Exit doors of the lift lobby shall be through a self closing FCD with proper fire resistance.

5.All the requirements shall confirm the I.S. specification including the communication facility in the lift cars connecting to the fire control room of the building.

6.Collapsible gate shall not be permitted.

Fire Refuse Areas:

1. 04 nos. fires refuse areas to be provided in the tower 1, 2, & 3. & 03nos. in the tower -4 in the 23.395m,35.595m, 47.795m & 59.995m & 23.395m,35.595m & 47.795 respectively height level of the building with the area 18 sq. m. each tower enclosed with FCD with the space advantage(15m x9m) at ground floor for high rise ladder with the pressurized firefighting shaft as per plan drawing.

2.The position of refuse areas shall be such that they are negotiable by the Fire service Arial Ladder from the ground floor.

3. The refuse areas shall be of fire resisting construction & to be protected with FCD.

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.

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3. One of the lift shall be designed for Fire lift.
4.Time of evacuation should be as per IS: 1644-1988.
FIRE FIGHTING WATER:
Underground water reservoir having water capacity of 200000 ltrs. Common for all blocks and overhead water reservoir having capacity of 10000 ltrs. for each block 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:
1.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 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
1. The building shall be provided with Wet Riser 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 in each tower. 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 I.S. 3844-1989.
2. The Wet riser installation in the each block shall be made in reference to height of the building in stage wise distribution & top floor to be 150mm diameter with twin out let landing valve in each floor.
3. All others requirements of the water base fire protection system shall be made as per I.S. specification 3844-1989 with up to date amendment.

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

1. All floors & rooms of the all towers including club area should be protected by the automatic sprinkler head as per IS 9972. Alarm gang to be incorporated along with the sprinkler system.
2. The Sprinkler arrangement shall be layout in zone wise for the all block as per I.S specification.
3. Separate sprinkler pump with jockey pump to be installed as per NBC Part- IV.

High/Medium velocity Water projectile system:

The Transformer (if oil type) to be protected by high/medium velocity water projectile system as per relevant rules.
Pumps for fire fighting
Two nos. electric and one diesel driven(stand by) pump of capacity 2850 litre/min and two nos. electric pump of the capacity 180 litre /min with proper sequence 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.

DETECTION AND ALARM SYSTEM:

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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 in the each block 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 or Manual Call Point. Hooters will be sounded on the same floor and immediate alternate floor.Public Address System linked between all floors in the all towers and Control Room shall have to be established.
3.Auto Fire Detection System with the help of Smoke/ heat Detectors shall be installed in all floors & rooms of all towers including club building, 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.
4.Fire Control Room of the premises having direct dialing facility to the local fire service.
5. 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.

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.
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, detection system, smoke extractor 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.

Gas Bank’s 6044-2000
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 Fire Fighting System

First Aid Fire fighting 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.

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.

AIR CONDITIONING SYSTEM (If any):
1.The A.H.U. shall be separated for each floor in the each block with the system. Air Ducts for individual floors.

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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 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 of escape route shall be displayed prominently.

4.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.

5.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.

6.A crew of trained Fireman under the experienced Fire Officer shall be maintained round the clock for safety of the building.

7.Mock Fire practice and Evacuation Drill shall be performed periodically with participation of all occupants of the building.

8. A certificate is to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performance of all the Fire and Life Safety arrangements installation of the building.

On compliance of all the above Fire and Fire 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 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.

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Signature Not Verified
Digitally signed by ABHIJIT PANDEY
Date: 2021.02.15 08:08:05 IST

Director
West Bengal Fire & Emergency Services

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