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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.:WBFES/4117/19/24/ Pgs. (S)-RB/515/17 (515/17)

Date: 24-02-2021

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

To: GODREJ AMITIS DEVELOPERS LLP
Godrej Waterside, Tower II, Unit No. 109, Plot No. 5, Block - DP, Sector - V, Kolkata - 700091

Sub: Revised Fire Safety Recommendation for proposed construction of B+G+III storied Podium and G+XVII storied under group Residential Building in favour of "Godrej Amitis Developers LLP" at Mouza- Banagram, JL No 16 under RS Dag no 389, 390, 415, 477, 362, 363, 359, 358, 391, 392, 412 & 411, P.S. Bishnupur, South 24 PGS.

This is in reference to your application no. 0125188211200007 dated 09-02-2021 regarding the Revised Fire Safety Recommendation for proposed construction of B+G+III storied Podium and G+XVII storied under group Residential Building in favour of "Godrej Amitis Developers LLP" at Mouza- Banagram, JL No 16 under RS Dag no 389, 390, 415, 477, 362, 363, 359, 358, 391, 392, 412 & 411, P.S. Bishnupur, South 24 PGS.

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 office is issuing **Revised 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 buildings shall be carried out as per approved plan drawings conforming the relevant buildings rules of local Municipal Body.

2. The interior finish decoration of the buildings 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 buildings 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 buildings shall conform the relevant building rules as well as permit the accessibility and manoeuvrability 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 4.5 and 5 M respecting abutting the road.

C. STAIRCASE:

1. All the principal staircases from ground to top floor shall be pressurized. A positive pressure of 25-30 Pa. shall be maintained inside the staircases. Pressurization shall be maintained round the clock.

2. The staircases of the building shall be enclosed type, entire construction shall be made of brick / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.

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 of occupancies 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 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.
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..

D. LIFT:
1. The walls of the lift enclosure of the building shall be at least two hours FIRE resisting type and lift shaft shall be pressurized as pre-existing norms and provision of NBC Part IV, 2016

2. All the lifts of the building shall be designed as high speed “FIRE LIFT” and shall be conspicuously indicated / marked.

3. The Electric power shall be from separate supply mains in the building and cables run with in the lift shafts, light and fans in the lift cars shall be operated from 24 volts, supply on emergency in case of failure of normal power supply lift shall automatically trip over alternate power supply.

4. Arrangement shall be provided for extraction of smoke in the all lift shaft by incorporation smoke venting system designed to permit 30 Air changes per hour in case of Fire 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.

5. Exit doors of the lift lobby shall be through a self- closing smoke stop door of 1 hour fire resistance for Residential Towers.

6. The speed of the fire lifts in the building shall be such that it can reach the top from the ground floor within 1 minute. Visual indications of floor numbers shall be incorporated in the lift cars.

7. All other requirements shall conform relevant I.S. specification including the communication facility in the lift cars connecting to the Fire Control Room of the building.

E. REFUGE AREA:

1. The Refuge areas shall be provided on the external wall as cantilever projection for Residential Buildings as shown in plan drawings not less than 15 Sq. mtr. area at the level of 23.885 M, 36.285 M, 48.685 M as shown / marked in the plan.

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. BASEMENT:

1. Automatic Mechanical smoke venting arrangements shall be provided to the basement conforming the relevant I.S. Specification and provision of NBC Part IV, 2016.

2. Mechanical extractor shall have an alternate source of supply.

3. Mechanical extractor shall have an internal locking arrangement so that extracting shall continue to operate and supply fans shall stop automatically with the actuation of Fire Detectors / suitable detection system.

4. The entire basement shall be protected with Hydrants and Hose Reel Hose conforming relevant I.S. specification incorporating with alarm gong bell.

G. FIRE FIGHTING WATER:

Under Ground Water Reservoir of 300,000 ltrs capacity for entire premises and Over Head Water Reservoir of 10,000 Ltrs capacity 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 with the domestic water reservoir as well as to prevent stagnancy of water. The water reservoirs shall be kept full at all time.

H. 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 lts/min. at the ground floor level outlet and minimum 900 lts/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. Yard Hydrant / Ring Main Hydrant with provision of adequate numbers of Pillar type Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.

1.Provision of suitable Fire Service Inlet shall be made as per relevant I.S specification.

I. FIRE PUMP:

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

3. 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.

4. 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.

J. Sprinkler Installation:

The automatic Sprinkler installation shall be provided in all floor areas of the Residential Building along with podium as per provision of NBC Part – IV, 2016 and relevant I.S. 9972. Alarm gong to be incorporated along with the sprinkler system.

K. 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 buildings 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, etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the buildings incase of normal power failure.

L. INTELLIGENCE ANALOGUE SYSTEM:

1. Auto Fire Alarm System with analogue addressable smoke / heat detectors as per suitability shall be installed in all floor area of the residential building along with podium including electrical shaft.

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.

M. FIRSTAID FIRE FIGHTING SYSTEM:

First Aid fire fighting arrangement in the style of placing suitable type of portable Fire Extinguishers, Fire buckets etc in all floors, basements and vulnerable locations of the premises shall be made in accordance with I.S. 2190-92.

N. GENERAL RECOMMENDATIONS:

1. Fire Notice for Fire Fighting and evacuation from the buildings shall be prepared and be displayed at all vulnerable

places of the buildings.

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 buildings 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 buildings to keep them in perfectly good working conditions at all times.

5. A crew of trained Fireman experienced officer shall be maintained round the clock for safety of the buildings.

6. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of buildings.

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 buildings.

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 buildings.

N.B. : Any deviation and changes the nature of use of the buildings in respect of the approved plan drawings, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

Signature Not Verified
Digitally signed by ABHIJIT PANDEY
Date: 2021.02.24 14:25:21 IST

Director
West Bengal Fire & Emergency Services