



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

Memo no.:WBFES/7774/2017/KOL/RB/537/14

Date: 20-06-2022

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

To: DTC PROJECTS PVT LTD.
DIAMOND HARBOUR ROAD, P.O. JOKA, SOUTH 24 PARGANAS

Sub: Revised Fire Safety Recommendation of the Proposed construction for DTC Southern Heights, Phase-02 consisting 11 Nos. of Tower i.e.- Tower-A1 (G+19 Storied), Tower-A2,A3,A4,B3,B4 & C3 (B+G+2P+17 Storied), Tower-B1,B2,C1 & C2 (G+2P+17 Storied) under group Residential Building at DTC Southern Heights, Joka, Diamond Harbour Road, Mouza-Dulatpur, Block- Bishnupur-I, J.L. No.- 79, Dag No. 11-13, 16-19, 21, 24-26, 51-58, 67, 87-89,96-99 UNDER KULERDARI GRAM PANCHAYET, DIST-SOUTH 24 PGS.

This is in reference to your application no. 0125188221200036 dated 26-05-2022 regarding the Revised Fire Safety Recommendation of the Proposed construction for DTC Southern Heights, Phase-02 consisting 11 Nos. of Tower i.e.- Tower-A1 (G+19 Storied), Tower-A2,A3,A4,B3,B4 & C3 (B+G+2P+17 Storied), Tower-B1,B2,C1 & C2 (G+2P+17 Storied) under group Residential Building at DTC Southern Heights, Joka, Diamond Harbour Road, Mouza-Dulatpur, Block-Bishnupur-I, J.L. No.- 79, Dag No. 11-13, 16-19, 21, 24-26, 51-58, 67, 87-89,96-99 UNDER KULERDARI GRAM PANCHAYET, DIST-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:
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 floor area exceeds 750m² shall be suitably compartmented by separation walls up to ceiling level having at least 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.Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

B.OPEN SPACE & APPROACH :

1.The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility.

2.The approach roads 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 5M wide – 5 M height respecting abutting the road.

C.STAIRCASE :

1.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.

2.The staircase of the building shall have permanent vents at the top and openable sashes at each floor level in the external wall of the building.

3.The width of the staircases shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant building rules and well as rules of the cinematograph Act. With up-to-date amendments.

4.All the staircase shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.

5.Fire and smoke doors at the entrances of all the Staircase enclosures as marked in the plan 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 openable in the direction of escape.

D.LIFT :

1.The walls of the lift enclosure of the building shall be at least four hours Fire Resisting type respectively marked in the plan with the event at the top of area not less than 0.2m².

2.The lifts of the building shall be designed at high speed "FIRE LIFT" and conspicuously indicated marked in the plan.

3.One of the lift car of the building shall be large enough to accommodated standard Ambulance Stretcher and Medical attendants.

4.The electric power shall be from separate supply mains in the building and Cables run within the Lift Shafts, Light and Fans in the lift cars shall be operation from 24 volts, supply on emergency incase of failure of normal power supply lift shall automatically trip over alternate power supply.

5. Arrangements shall be provided for extraction of smoke in all the Lift Shafts by incorporating smoke venting system.

6. Exit doors of the lift lobby shall be through a self-closing smoke stop floor of one hour Fire resistance.

7. The speed of the Fire Lifts in the building shall be such that it can reach the top from the Ground Floor within one minute in visual indications of floor numbers shall be incorporated in the lift cars.

All other requirements shall conform the I.S. specifications including the communication facility in the lift cars connecting with the Fire Control Room of the building.

E. REFUGE AREA :

1. Refuge area is not less than 15 Sq.m. shall be provided on the external wall with cantilever projection or other suitable means at above 24m and 39m levels of the building as shown in the drawings.

2. The Refuge areas shall be of Fire resisting construction and protected with self-closing F.C.D. at the entrance from the corridors at staircase lobbies.

3. The position of Refuge areas shall be such so that they are negotiable by the Fire Services Ladder from the Ground.

F. BASEMENT AREA :

1. All the basement areas should be properly ventilated with aggregate cross sectional area of not less than 2.5% of the area spread evenly round the perimeter of the Basement shall be provided in the form of grills.

2. Mechanical Smoke venting arrangements shall be provided to all the Basements conforming the I.S. specifications.

3. The Exits from the basement shall be from open Air and from any point the travel distance shall not exceed 18.5M to reach any Exit. Continuation of staircases from the basement to upper floor will not be allowed i.e. all staircases shall be aggregated on the ground floor level.

4. All the basement areas shall be protected with automatic sprinkler system conforming the I.S. 3844-1989.

5. The staircase of basement shall be of enclosed type having Fire resistance not less than 4 hours and shall be situated at the periphery of the basement to be entered at Ground Level only from the open air and in such positions that Smoke from any Fire in the basement shall not obstruct any exit saving the ground upper floor of the building.

6. Mechanical extractors shall have an alternative source of supply.

7. Mechanical extractors shall have an internal locking arrangement so that extractors shall continue to operate and supply Fans shall stop automatically with the actuation of Fire Detector.

8. Mechanical extractors shall be designed to permit 30 Air Charges per hour in case of Fire or distress call.

G.FIRE FIGHTING WATER :

Underground water reservoir having water capacity at 3,50,000 ltrs. capacity and Overhead water reservoir of 10,000 ltrs. capacity in each tower exclusively for Firefighting purpose with replenishing arrangements @ 1000 ltrs./min. Preferably from two different sources of water supply shall be provided. The water reservoir 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.

H.HYDRANT SYSTEM :

1The building shall be provided with Wet Riser at 150mm. internal diameter Pipe Line 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 900lts/min. at the top most outlet. In both cases the running pressure shall not be less than 3.5Kgs/Sq.cm. All other requirements shall conforming I.S. 3844 – 1989.

2Provision for Hose Reel in conjunction with Wet Riser shall be made at each floor level and both sides of the stage of the auditorium, Cinema Hall, Video Halls etc. conforming the relevant I. S. Specifications.

3Provision for standard Hose Reel Hose supplied from the overhead reservoir through Booster Pump shall have to be made in all the floors of the building satisfy the code of I.S. 3844-1989.

4Yard Hydrant / Ring Main Hydrant with provision of four numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.

I.SPRINKLER INSTALLATION :

The automatic Sprinkler installation shall be provided in Basement and in all mercantile floor areas of the building as per I.S. 15101:2002 (2007). Alarm gang to be incorporated along with the Sprinkler system.

J.FIRE PUMP :

Provision of the Fire Pump shall have to be made to supply water at the rate-designed pressure and discharge into the Meter based system, which shall be installed in the building. One such pump shall always be kept on stand-by preferably be of diesel driven type.

A separate Fire pump shall preferably be made for the total Sprinkler installation or the building. Provision of Jockey Pump shall also have to be made to keep the Water based system 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 fitted with overhead Tank.

K.ELECTRICAL INSTALLATION & DISTRIBUTION :

1The 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 1646 – 1982.

2The vertical ducts shall be supply sealed at alternative floor level.

3The electrical installations shall be adequately protected with auto detection system and suppression system like CO2/D.C.P. or Medium Velocity / Projector System.

4Alternative 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, Fire Lift etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building in case of normal power failure.

L.DETECTION, ALARM AND SUPPRESSION SYSTEM :

1.Auto fire detection system with the help of Flame and smoke detector shall be installed in all places of below and preferably above false ceiling of the building. The system shall also be made in places of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. 2189-1988.

2.The suppression system shall be made with Fire Extinguishers and total flooding system with C02/F.M.-200 particularly in computer and Electrical processing and data room and in a room of irreplaceable articles.

3.Hooter will be sounded in such a manner so that an operation of a Detector or Manual Call Point Hooters will sounded on the same floor and immediate alternate floor.

4.Public Address System :-

Public address system linked between all floors and Control Room shall have to be established.

M.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.

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 materials.

N.FIRST AID 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 and vulnerable locations of the premises shall be made in accordance with I.S. 2190 – 1992.

O.Water Curtain:

Water Curtain shall have to be provided at common basement and podium levels as shown in the plan as per I.S. Specification.

P. GENERAL RECOMMENDATIONS :

1Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles.

2Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.

3Floor numbers and directional sign of escape route shall be displayed prominently.

4The employees and security staff shall be conversant with installed Fire Fighting equipments of the building and to operate in the event of Fire and Testing.

5Arrangement 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.

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

7Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of 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 drawing, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

Director
West Bengal Fire & Emergency Services

Memo No.: WBFES/7774/2017/KOL/RB/537/14