



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

Memo no.:FSR/0125186231200648

Date: 08-12-2023

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

To: RANJIT ROY AS CONSTITUTE ATTORNEY OF GOPAL KUNDU AND OTHERS.
HOLDING NO.314,S.N.GHOSE AVENUE,MOUZA-ELACHI,J.L.NO-70,WARD NO-26,L.R.KHATIAN-
3401,3407,3419,3094 TO 3096,3544,3478,L.R.DAG NO-19,20,23,24,36,35,P.S-SONARPUR UNDER RAJPUR
SONARPUR MUNICIPALITY,HARINAVI.DIST- SOUTH 24 PARGANAS.KOLKATA-700103.

Sub: Fire Safety Recommendation in favour of Proposed G+XVIII Storied under group Residential Building at premises no. – Holding No.- 314, S.N.Ghose Avenue, Mouza.- Elachi, J.L.No.- 70, Ward No.- 26, L.R. Khatian.- 3401, 3407, 3419, 3094, 3095, 3096, 3544, 3478, L.R.Dag No.- 19, 20, 23, 24, 36 & 35, P.S.- Sonarpur Under Rajpur Sonarpur Municipality, Harinavi, Dist.- 24, Parganas (South), Kolkata.- 700103.

This is in reference to your application no. 0125186231200648 dated 06-09-2023 regarding the Fire Safety Recommendation in favour of Proposed G+XVIII Storied under group Residential Building at premises no. – Holding No.- 314, S.N.Ghose Avenue, Mouza.- Elachi, J.L.No.- 70, Ward No.- 26, L.R. Khatian.- 3401, 3407, 3419, 3094, 3095, 3096, 3544, 3478, L.R.Dag No.- 19, 20, 23, 24, 36 & 35, P.S.- Sonarpur Under Rajpur Sonarpur Municipality, Harinavi, Dist.- 24, Parganas (South), Kolkata.- 700103.

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:

- 1.TEC (dt.- 17/10/2023) approved the application of Fire Safety Recommendation with the following condition : - Abutting road do not comply with the height of the building requirement, sanctioning authority must verify this matter.
- 2.CONSTRUCTION
 - 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.
 - The floor area exceeds 750m² shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
 - The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
 - Provision of ventilation at the crown of the central core-duct of the building shall be provided.

•Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

3.OPEN SPACE & APPROACH:

•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.

•The width and height of the access gates into the premises shall not be less than 4.5M and 5 M respecting abutting the road.

•Drive way shall be free from any obstruction. No parking will be allowed on the Drive Way.

4.STAIRCASE:

•All the principal staircases as shown or marked in the approved plan drawing from ground to top floor shall be pressurized. A positive pressure of 25-30 Pa. shall be maintained inside the staircases and its shaft related.

• 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.

•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.

•The width of the staircases and corridor and travel distance of different categories of occupancies shall have to conform the relevant building rules.

•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.

•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..

5.LIFT:

•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

•All the lifts of the building shall be designed as high speed "FIRE LIFT" and shall be conspicuously indicated / marked.

•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.

•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.

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

•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.

•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.

•All lift shaft and lift lobby and all staircases shaft shall have to pressurised which shall facilitate the pressurisation mechanism inside the places as per NBC 2016.

6.Refuge Area :

•Refuge Area shall not be less than 15 Sq M on the external wall with cantilever projection at the designated height as per NBC Part-IV 2016

•The refuge area shall be of Fire Resisting Construction and protected with Self Closing FCD at the entrance from the

Staircase shaft.

- The projected refuge area shall be surrounded by 1 M high wall and opening to the refuge area from utility or any utility shall not be allowed.

7.FIRE FIGHTING WATER :

- Underground water reservoir having water capacity of 200000 Ltrs. and O.H.W.R. 20000 ltrs capacity exclusively for firefighting purpose shall be kept full at all time.
- The Fire water reservoir shall have overflow arrangement with the domestic water reservoir as well as to avoid stagnancy of water.
- Provision of necessary manhole shall be made on the top of this reservoir as per specification.
- Provision of replenishment at the rate of at least 1000 ltrs./min. from two spate source of water supplies shall be made.
- The deep tube wells for the replenishment of the reservoir shall be incorporated with auto starting facility with actuation of auto detection and suppression arrangement of the premises and shall also be connected with dual power supply units.
- Provision of placing Fire Appliances on the underground water reservoir to be made to draw water in case of emergency.

8.WATER LAYOUT SYSTEM:

- The building shall be provided with wet riser with 150 mm. internal diameter Pipe Line with provision of Hose Reel Hose at the Staircase landings / half landings. The system shall be so designed that shall be kept charged with Water all the time under pressure All other requirements shall conforming I.S. 3844 – 1989.
- Provision for Hose Reel units on swiveling drum in conjunction with Wet Riser cum Down Comer shall be made near each lading valves.
- Ring Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.
- Two fire service inlet near the entry or exit of the premises facing to the abutting road shall have to be provided.
- All the assembly areas, lobbies/Corridors of all floor of the building shall have to be provided with Auto-sprinklers and Auto Detection system.

9.FIRE PUMP:

- Provision of the Fire Pump shall have to be made to supply water at the rate-designed pressure and discharge (2850 LPM) into the Water based system, which shall be installed in the building. One such pump shall always be kept on stand-by be of diesel driven type.
- Provision of Jockey Pump/Stand by 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 with overhead tank.

10.Sprinkler Installation:

- All the floor areas of the building shall have to be provided as per provision of NBC Part – IV, 2016 and relevant I.S. 9972. Alarm gong to be incorporated along with the sprinkler system & its accessories.
- A Separate Fire Pump shall be made for the total Sprinkler Installation of the building.

11.For MLCP :-

- Water Based Medium Velocity projection system having integrity with heat & smoke detectors alternatively.

12.DETECTION, ALARM AND SUPPRESSION SYSTEM:-

- 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, talk back system at each floor connecting with audio-visual panel board shall be made in control Room. The control Room shall be located at the entrance of Ground Floor of the building, other

requirements of the system shall be made conforming I.S. 2189-1988.

- Auto Fire Detection System (Analogue Addressable) with the help of Flint 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 system shall be made in accordance with I.S 2189-1988.

- The Suppression system shall be made with Fire Extinguishers and total flooding system with CO2/F.M.-200 particularly in computer and Electrical processing and data room and in a room of irreplaceable articles.

- Hotter 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.

13. INTELLIGENCE ANALOGUE SYSTEM:

- Auto Fire Alarm System with Analogue addressable smoke/heat detector as per suitability shall be installed in each floor.

- 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 Mtrs. In order to reach any of the call point.

- 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.

- Both way public address systems shall be made available in all floors of the building. The system shall be connected to the Main Control Room.

- 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.

14. Public Address System:

- Public address system & talk back linked between all floors and control Room shall have to be established.

15. ELECTRICAL INSTALLATION & DISTRIBUTION:

- 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 building as laid down in I.S. specification 1946-1982.

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

- The electrical installation shall be adequately protected with CO2/D.C.P. or Medium Velocity / Projector system.

- 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, 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.

16. AIR CONDITIONING SYSTEM: (If any)

- The A.H.U. shall be separated for each floor with the system Air Ducts for individual floors.

- Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the Air Conditioning system.

- The system of auto shut down of A.H.U. shall be incorporated with auto detection and alarm system.

- The air handling Units room shall not be used for storage of any combustible materials.

- The A.H.U. shall be separated for each floor with the system .Air ducts for individual floors.

- Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the air conditioning system.

- The system of Auto shut down of A.H.U. shall be incorporate with the auto detection and alarm system.

- Escape route like staircase, common corridors lift lobby etc. shall not be used as return air passage.

- The A.H.U. room shall not be used for storage of any combustible materials.

- Arrangements shall be made for isolation at the strategic location by incorporating auto dampers in the Air Conditioning System.

- Wherever the ducts pass through Fire Wall of Floors, the opening around the ducts shall be sealed with fire resisting

materials such as asbestos etc.

- The metallic ducts shall be used even for the return air instead of space above the false ceiling.
- The material used for insulating the duct system (inside or outside) shall be of non-combustible materials .Glass wool shall not be wrapped or secured by any materials of combustible nature . If the air handling unit serve more than one floor, the recommendation given above shall be complied with in addition as below:—
 - (a) proper arrangement by way of automatic fire dampers working on fusible link for isolating all ducts at every floor from main riser shall be made.
 - (b) The vertical shafts for treated fresh air shall be of masonry construction.
 - (c) The air filter for A.H.U. shall be of non-combustible materials.
 - (d) The A.H.U. room shall not be used for storing any combustible material.
 - (e) Inspection panel shall be provided in the main trunk to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.

17.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.

18.GENERAL RECOMMENDATIONS:

- Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles.
- Fire Notice for Fire fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- Floor numbers and directional sign of escape route shall be displayed prominently.
- The 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.
- 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.

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 installations of the 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, F. S. C. 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.

Signature valid

Digitally signed by ABHIJIT
PANDEY
Date: 2023.12.08 14:29:04 IST

DIRECTOR
West Bengal Fire & Emergency Services