GOVERNMENT OF WEST BENGAL
OFFICE OF THE DIRECTOR GENERAL
WEST BENGAL FIRE & EMERGENCY SERVICES
13-D Mirza Ghalib Street, Kolkata- 700 016

Memo No : IND/WB/FES/20182019/20015 DATE: 27/08/2018

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

To :
ANURODH VYAPAR Pvt LTD AND ORS
UNDER MOUZA-MAHISBATHAN,J.L. NO:18, LR DAG NO:462,504,505, P.S.(NEW)-ELECTRONIC COMPLEX, P.S.(OLD)-RAJARHAT,F.S.- BIDHANNAGAR
DIST.-24 PARGANAS (N)
KOLKATA - 700102
Bidhan Nagar F.S., Rajarhat,
North 24 Parganas - 700102 .

Sub :Fire Safety Recommendation for a B1+B2+ G +XXVII (including Service Flooor) storied proposed Residential Building at the Premises No. –J.L. No. – 18, L.R. Dag No. – 462,504,505, Mouza - Mahisabathan, P.S.- Electronic Complex, Kolkata – 700 102 for Fire Safety measures.

This is in reference to your Application No. IND/WB/FES/20182019/20015,dated 27/08/2018, regarding the Fire Safety Measure for a B1+B2+ G +XXVII (including Service Flooor) storied proposed Residential Building at the Premises No. –J.L. No. – 18, L.R. Dag No. – 462,504,505, Mouza - Mahisabathan, P.S.- Electronic Complex, Kolkata – 700 102 for Fire Safety measures.

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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 favour of the aforesaid building subject to the compliance of the following fire safety measure.

Recommendation:

1. CONSTRUCTION :

1.The whole construction of the proposed buildings shall be carried out as per approved plan drawings conforming the relevant buildings rules of The Bidhannagar Municipal Corporation.
2.The floor area exceeds 750 Sq.Mts. 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 buildings 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 buildings shall be provided.
5.Arrangements shall have to be made for sealing all the vertical and horizontal ducts, shafts by the materials of adequate Fire resisting capacity.

OPEN SPACE & APPROACH :

1.The open space surrounding the buildings shall conform the relevant buildings 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 4.5 Mts. and 5 Mts respecting abutting the road.

STAIRCASE :

1.The staircase of the buildings 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 buildings shall have permanent vents at the top and openable sashes at each floor level in the external wall of the buildings.
3.The width of the staircases shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant buildings rules with up to date amendment.
4.All the staircases shall be extended up to the terrace of the buildings and shall be negotiable to each other without entering into any room.
5.Staircases to be pressurized & pressure difference shall be 50Pa. as per N.B.C. Part – IV 2016.

6.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.

LIFT :

1.The walls of the lift enclosure shall be at least two hours Fire resisting type. Collapsible gate shall not be permitted.
2.One of the lift shall be designed as Fire Lift. The word “FIRE LIFT” shall conspicuously written in fluorescent paint on the lift landing doors at each floor level.
Lift lobby of fire fighting shaft at all levels to be pressurized (25-30 Pa) as per N.B.C. Part – IV 2016.

3.Alternate source of power supply shall be provided for all lifts through manually operated change over switch.
4.In case of failure normal electric supply it shall automatically trip over to alter supply.
5.The Speed of the fire lift shall be such that it can reach the top floor from ground level within one minute.
6.Lift communication system shall be provided in the lift and this system shall be connected to fire control room of the buildings.

REFUGE AREA :

1.Refuge area is not less than 15sqm. Shall be provided on the external wall with cantilever projection or other suitable means at 23.707mtr., 37.107mtr., 50.507 mtr., 63.907 mtr., 77.307mtr., 90.707 mtr. levels of the building as shown in the plan.
2.The refuge area shall be of Fire Resisting construction and protected with self closing F.C.D. at the entrance from the corridor or the staircase lobbies.
3.The position of Refuge areas shall be such that they are negotiable by the fire service ladder from the ground.

HALL :
1.The doors/aisles/gangway/cross gangways/sitting arrangements/corridors in hall etc shall be made as per good practice of N.B.C. part-IV fire protection.

BASEMENT:

1.The Basements shall be adequately ventilated with aggregate cross sectional area of not less than 2.5% of the total basement floor area.
2.Mechanical extractor for smoke venting system shall be provided for the entire basement area conforming the I.S. Specification. The system shall be of such design as to operate on actuation of heat/smoke sensitive detector or sprinkling. It shall also have an arrangement to start it manually.
3.The exit from the basement shall be from open Air.
4.The entire basement shall be protected with Auto Sprinkler System, Landing valve and Hose Reel Hose System conforming to I.S. 3844-1989.
5.The staircase of basement shall be of enclosed type having Fire resistance of not less than 2 hrs. and shall be situated at the periphery of the basement to be entered at ground level only from the open air and in such position that smoke from any Fire in the basement shall not obstruct any exit or entry serving the ground and upper floor of the buildings.
6.Mechanical extractors shall have an alternative source of supply.
7.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.
8.If cut outs are provided from basement to the upper floors or to the atmospheres, all sides cut outs openings in the basements shall be protected by sprinkler head to form a water curtain in the event of a fire.

FIRE FIGHTING WATER :

Underground water reservoir having water capacity of 2,00,000Ltrs. and overhead reservoir of
23,000Ltrs. capacity exclusively for Fire Fighting purpose with replenishing arrangement @ 1000 Ltrs./Min. preferably from two different sources of water supply shall be provided. The Fire 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.

HYDRANT SYSTEM :

1.The building shall be provided with Wet Riser of 150 mm internal diameter pipe line with provision of landing valves at the staircase landing/half landings at the rate of one such riser

for 1000 Sq.Mt. of floor area. The system shall be so designed that 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 900 Ltrs./Min. at the top most outlet. In both cases the running pressure shall not be less than 3.5 Kgs./Sq.cm. All other requirements shall conform I.S. 3844-1989.

2.Provision for Hose Reel in conjunction with Wet Riser shall be made at each floor level conforming the relevant I.S. specification.

3.Yard Hydrant & Ring Main Hydrant with provision of adequate numbers Hydrant alongwith Fire Service inlet shall be installed surrounding the buildings in accordance with relevant I.S. specification.

SPRINKLER INSTALLATION :

The automatic Sprinkler installation shall be provided in basement, refuge areas and in all floor areas of of the building as per I.S. 9972. Alarm gang to be incorporated along with the sprinkler system.

FIRE PUMP :

Provision of the Fire Pump 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 buildings. One such pump shall always be kept on Stand-by of diesel driven type.

A separate fire pump shall be made for the total Sprinkler installation of the building. Provision of Jockey Pumps 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.

To avoid high pressure in lower levels of wet riser in the building multi stage, multi - outlets

pumps (creating pressure zones) or variable frequency drive pumps or any other suitable

arrangement to be provided as per N.B.C. Part – IV 2016.

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 the I.S. specification 1946-1982.

2.The ducts shall be supply sealed at all floor level.

3.The electrical installation shall be adequately protected with CO2/D.C.P. or Medium Velocity Projector System.
4.Alternative Power Supply :
Arrangements shall have to be made to supply power with help of a generator to operate at least the Fire Pump, Pump for deep Tube-well, Fire Alarm System, Fire Lift, pressurization fans and blowers, smoke extraction and damper systems etc. and also for illuminating the Staircase, Corridors, fire refuge areas etc. and other places of assembly of the buildings in case of normal power failure.

INTELLIGENCY ANALOGUE SYSTEM :

1.Auto Fire Alarm System which analogue addressable smoke/ heat detectors as per suitability shall be installed in all floor area of the building including basement area.
2.Addressable analogue manual call boxes incorporating with sounders shall be installed in all the floor area of the building in such a manner that maximum travel distance shall not be more than 22.5m 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.
4.Both way Public address system linked between all floors & fire refuge areas and Control Room shall have to be established.
5.All the installation shall also satisfy the I.S. Specification 2189 as amended and the code of practice as laid down in N.B.C. pt. IV.

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.

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 including basements 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.Lightning protection for buildings shall be provided as per Part 8 ‘Building Services’, Section 2 Electrical installations.
3.Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.

4.Floor numbers and directional sign of escape route shall be displayed prominently.
5.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.
6.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.
7.A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the building.

8.Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of the building.
9.Close circuit T.V. shall have to be provided for the entire floor area including the basement area of the building.
10.After obtaining Fire Safety Certificate each year a certificate is to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performances of all Fire Safety arrangements and installation of the buildings.
On compliance of all the above Fire Safety recommendations, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of the installation before occupancy of the buildings; 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 building in respect of the approved plan drawings, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

Director
West Bengal Fire & Emergency Services

Signature Not Verified
Digitally signed by ABHIJIT PANDEY
Date: 2018.08.27 20:49:53 IST