

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

Memo. No. : WBFES/ 2644/16 / 16/ 24Pgs(N)-RB/912/14(912/14) Date: 08.04.16

From : The Director in Charge
Fire Prevention Wing
West Bengal Fire & Emergency Services

To : The Authorized Signatory
Power Point Building Pvt. Ltd.
101, Park Street,
Kolkata-700 016.



Sub :- Revised Fire Safety Recommendation for proposed construction of 16 No. G+XIV Storied Residential Building Comprising of Block No.-1A, 1B, 1C, 1D,1E, 1a, 2A, 2B, 2D, 4A, 4B, 4C, 4D, 4E, 4F, One No. G+II Storied Club Building as Block-2C, One No. B+G+VII Storied MLCP as Block-3 and One no. Single Storied Residential Building at premises No.-Mouza-Patulia, J.L. No.-4, R.S./L.R. Dag Nos.- 696 To 700, 737, 743, 744, 749, 750, 754 To 762, 766, 768-774, 776, 777, 844 To 847, 849, 850, 851, 853 To 858, 767/1687, 770/1251 To 770/1254 & 856/1260, Corresponding to L.R. Dag Nos.- 1595 To 1597, 1590, 1598, 1599, 1661, 1702, 1635, 1703 To 1708, 1715, 1709, 1588, 1589, 1591, 1594, 1585, 1587, 1586, 1712, 1710, 1713, 1717, 1716, 1825, 1824, 1736, 1734, 1733, 1732, 1718, 1719, 1724, 1722, 1723, 1557, 1735, 1555, 1554, 1583, 1720, 1711, 1714, 1726 and 1556 under L.R. Khatian Nos.-3635, 3636, 3637,3638, 3639, 3640 To 3664, 3754 To 3766, 3799, 3801 To 3812, 3823 To 3834, 3858, 3868, 3869 To 3877, 3883 To 3892, 3894 To 3900, 3905, 3906, 3707, 3910, 3911, 3914, 3915, 3926, 3927, 3928 To 3935, 3937 To 3945, 3953 To 3969, 3988 To 3992, 3998, 4002, 4046 To 4048, 4073, 4076, 4099, 4100, 4101, 4111, 4124, 4133, 4134 To 4136, 4138, 4177, 4182, 4183, 4260, 4261, 4262, 830, 231, 529 & 2346, P.S.-Kharda, Under Patulia Gram Panchayet, District-24Pgs(N).

This is in reference to your letter No. Nil, dated. 04.01.2016, regarding Revised Fire Safety measure for proposed construction of 16 No. G+XIV Storied Residential Building Comprising of Block No.-1A,1B,1C,1D,1E,1a,2A,2B,2D,4A,4B,4C,4D,4E,4F, One No. G+II Storied Club Building as Block-2C, One No. B+G+VII Storied MLCP as Block-3 and One no. Single Storied Residential Building at premises No.-Mouza - Patulia, J.L. No.-4, R.S./L.R. Dag Nos.- 696 To 700, 737, 743, 744, 749, 750, 754 To 762, 766, 768-774, 776, 777, 844 To 847,849, 850, 851,853 To 858,767/1687,770/1251 To 770/1254&856/1260, Corresponding to L.R. Dag Nos.- 1595 To 1597, 1590, 1598, 1599, 1661, 1702, 1635, 1703 To 1708, 1715, 1709, 1588, 1589, 1591, 1594, 1585, 1587, 1586, 1712, 1710, 1713, 1717, 1716, 1825, 1824, 1736, 1734, 1733, 1732, 1718, 1719, 1724, 1722, 1723, 1557, 1735, 1555, 1554, 1583, 1720, 1711, 1714, 1726 and 1556 under L.R. Khatian Nos.- 3635, 3636, 3637, 3638, 3639, 3640 To 3664, 3754 To 3766, 3799, 3801 To 3812, 3823 To 3834, 3858, 3868, 3869 To 3877, 3883 To 3892, 3894 To 3900, 3905, 3906, 3707, 3910, 3911, 3914, 3915, 3926, 3927, 3928 To 3935, 3937 To 3945, 3953 To 3969, 3988 To 3992, 3998, 4002, 4046 To 4048,

4073, 4076, 4099, 4100, 4101, 4111, 4124, 4133, 4134 To 4136, 4138, 4177, 4182, 4183, 4260, 4261, 4262, 830, 231, 529 & 2346, P.S.-Kharda, Under Patulia Gram Panchayet, District-24Pgs(N).

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 favour of the aforesaid building subject to the compliance of previous Fire Safety Recommendation which was earlier issued vide memo no. WBFES/5252/14/ 24Pgs(N)-RB/312/14(312/14) Dated-11.11.14. and shall be strictly to be complied.

Enclose:

1. One set of plan.
2. Recommendation.


07.4.16

**Director in Charge
Fire Prevention Wing
West Bengal Fire & Emergency Services**



RECOMMENDATION

A. CONSTRUCTION :

1. The whole construction of the 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 and horizontal 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 4.5M and 5 M 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 With up-to-date amendments.
4. All the staircase shall be extended up to terrace of the building and shall be negotiable to each floor.
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 shall be at least two hours Fire resisting type.
2. Collapsible gate shall not be permitted.
3. One of the lift in each building shall be designed for Fire Lift. The word "FIRE LIFT" shall conspicuously written at ground floor.
4. Lift and Lift Lobby communicate to the basement shall have to be made as per guide line of NBC Part IV, Annex 'C' and relevant I.S. specification.

E. REFUGE AREA:

1. Refuge area is not less than 15sq. m. shall be provided on the external wall with cantilever projection or other suitable means at level of 25 mtr. and 40.25 mtr. as shown in the drawings.
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.

F. FIRE FIGHTING WATER :

Underground water reservoir having water capacity of 4,00,000 ltr. reservoir exclusively for Fire fighting purpose with replenishing arrangements @ 2000 lts./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.

G. HYDRANT SYSTEM :

1. The building shall be provided with Wet Riser of 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 lts /min at the ground floor level outlet and minimum 900 Lts/min at the top most outlet. In both cases the running pressure shall not be less that 3.5 Kgs/Cm². 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. Specifications.
3. Yard Hydrant/Ring Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the residential complex building in accordance with relevant I.S. specification.
4. Provision of Fire service inlets shall be made as per relevant I.S. specification.

H. SPRINKLER INSTALLATION:

The automatic Sprinkler installation shall be provided in the basement area of the building as per I.S.9972.

I. 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 building. One such pump shall always be kept on Stand- by preferably be of diesel driven type.

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 with overhead tank.

Fire Pump Room:

Fire pump room shall be constructed at the level of -2.0 m from 0 level to facilitate positive suction.

J. 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 building as laid down in I.S. specification 1946 – 1982.
- 2 The vertical and horizontal ducts shall be supply sealed at alternative floor level.
- 3 The electrical installation shall be adequately protected with CO₂/D.C.P.
- 4 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 incase of normal power failure.

K. INTELLIGENCE ANALOGUE SYSTEM :

1. Auto Fire Alarm System with analogue addressable smoke / Heat detector as per suitability shall be installed in each floor.
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 22.5Mtrs. 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 shall be made available in all floors of the building. The system shall be connected to the Main Control Room.
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.

L. 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.

M. MULTI LAYER AUTOMATED MECHANIZED CAR PARKING SYSTEM:

1. **Structural design:-** The M.L.C.P. shall be constructed of structural steel construction.
2. **Vertical Deck Separation:-** For M.L.C.P. having Multi Car Parking level, vertical Fire separation between the upper and lower decks by using a non- perforated and non-combustible materials (Structural Steel Plate) shall be provided. This is to minimize direct impingement of flame to the Car in the upper deck and also to prevent dripping of any possible leaking fuel to the lower deck. Proper drainage system shall have to be provided for accidental leaking of oil from the Car and sand bed shall be provided at the Ground level.
3. **Fire Engine Accessway:-** Accessway shall be provided for the Fire Engine to gain access to the car park entrance and exit.
4. **Fire Hydrant:-** Fire hydrants are to be provided in accordance with Cl. 4.4.
5. **Natural Ventilation:-** Each car parking deck shall be provided with at least 50% external ventilation openings of the perimeter wall areas and uniformly distributed.
6. **Sprinkler & Detection System:-** Open Modular Type Sprinkler along with detectors shall be provided in all M.L.C.P. areas as per relevant I. S. Specification.
7. Cross zone wise Sprinkler system shall have to be implemented.
8. **Fire Pump:-** Separate Jockey and Sprinkler pump of suitable capacity shall have to be installed for the M.L.C.P.
9. **Operating System:-** Both Mechanical and Manual type operating system shall have to be provided.

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. 15683 with effect from January 2012.

O. **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 Adequate Fire Mask to be provided.
- 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 A Fire Control room including a close circuit T.V system shall have to be installed for continuous monitoring of the building.
- 7 Lightning arrested arrangement to be provided at highest points of all the buildings as per relevant I.S specification.
- 8 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.
- 9 A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the building.
- 10 Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
- 11 Each year 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 Safety arrangements and installation of the building.

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, 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 shall be treated as cancelled.



(Signature)
07.4.16

**DIRECTOR IN CHARGE
FIRE PREVENTION WING
WEST BENGAL FIRE & EMERGENCY SERVICES**