



Government of West Bengal
Office of the Divisional Fire Officer
West Bengal Fire & Emergency Services

First Floor of Midnapur Fire Station Sepoy Bazar, P.O.:- Medinipur, P.S.:- Kotwali, Pin:- 721101

Date : 19-12-2024

Memo No.: FSR/211862406300000972

From :
Divisional Fire Officer
Paschim Medinipur
West Bengal Fire & Emergency Services

To :
Shivani Construction
Mouza-Athilagori, J.L NO-370, WARD-9, CONTAI MUNICIPALITY, DIST- PURBA MEDINIPUR, PS-KANTHI, 721401

Sub: Fire Safety Recommendation for an Existing with Proposed construction of B+LG+UG+7 storied Commercial cum Residential building under group of Mixed Occupancy in the name & Style "SHIVANI CONSTRUCTION" at Mouza- Athilagori, J.L. No. – 370, Plot No.- R.S- 504,505,515, L.R – 728,729,742, Khatian No- 4307,4308,4309,4310, Ward No- 9, P.O- Contai, P.S. – Contai, Dist. – Purba Medinipur, PIN- 721401..

This is in reference to your AIN 211862406300000972 dated 10-Sep-2024 regarding Fire Safety Recommendation for an Existing with Proposed construction of B+LG+UG+7 storied Commercial cum Residential building under group of Mixed Occupancy in the name & Style "SHIVANI CONSTRUCTION" at Mouza- Athilagori, J.L. No. – 370, Plot No.- R.S- 504,505,515, L.R – 728,729,742, Khatian No- 4307,4308,4309,4310, Ward No- 9, P.O- Contai, P.S. – Contai, Dist. – Purba Medinipur, PIN- 721401..

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 Fire Safety Recommendation in favor of the aforesaid building for compliance of the following fire safety measure.

Recommendation :

- A. 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 Municipality Body.
 2. The floor area exceeds 750 m² shall be suitably compartmented by separation walls up to ceiling level having 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.



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5. Arrangement shall have to be made for sealing all the vertical and horizontal ducts by the materials of adequate fire resisting capacity.

B. OPEN SPACE AND APPROACH:

1. The open spaces surrounding the building shall conform the relevant building rules as well as permit the accessibility and manoeuvrability of Fire Appliances with turning facility.
2. The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting 45M.T.
3. The width and height of the access gate into the premises shall not be less than 4.5 mt. and 5.0 mt. respecting the abutting road.
4. Drive way should be free from any type of obstruction. No parking will be allowed on the drive way.
5. All the Passage way should be kept clear for free access.

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 walls of the building.
3. The width of the staircase shall be made as marked in the plan. Corridors and the exit doors shall conform the relevant Building Rules with up to date amendment.
4. All the staircase shall be extended up to terrace of the building and shall be negotiated 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. Lift and Lift Lobby shall be communicated to the basement and shall have to be pressurized as per guide line of N.B.C. part-IV, Annexure 'C'.

E. REFUGE AREA: (if Any).

1. The refuge area on calculating the area at the rate of 0.3 m² / person on the basis of floor area but not less than 15 sq. mtr. each shall be provided on the external wall as cantilever projection or any other suitable floor levels of each building as shown shall be constructed.
2. The refuge areas shall be of fire resisting construction and protected with self-closing FCD 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 floor level.

This application was placed before 5th Kharagpur TEC on 24/11/2023 and as per observation the RFSC may allow in respect of this Establishment subject to comply the condition with in One month from the issuing of this certificate and informed to this by written for regularization of this certificate.

F. BASEMENT:

1. The Basement shall be adequately 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 relevant I.S. Specification & provision of N.B.C. - Part IV.
3. The exit from the basement shall be form open Air and from any points the travel distance shall not exceed 15 mtr. to reach any exit.
4. All the basements shall be protected with Automatic Sprinkler System conforming to I.S. 3844- 1989.
5. The staircases of basements shall be of enclosed type and pressurized having Fire resistance of not less than 4 hrs., 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 of upper floor of the building.
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 / Sprinklers.
8. Mechanical extractors shall be designed to permit 12 Air Changes per Hour in case of Fire or Distress Call.
9. Basement compartmentation shall be achieved as shown / marked in plan & protection shall be made as per provision of N.B.C-Part-IV.



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G. FIRE FIGHTING WATER:
Underground water reservoir having water Capacity 150,000 Lt. for fire and overhead water reservoir having capacity of 30,000 Lt. (as shown in the plan drawing) exclusively for firefighting purpose with replenishing arrangements @ 1000 Ltrs./min. preferably from two different sources of water supply shall be provided. The water reservoirs 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.

Condition:-

Inter connect the Over Head reservoir with Underground Reservoir by using one suitable pump.

H. HYDRANT SYSTEM:

1. The building shall be provided with separate Wet Riser of each building of 150mm. Internal diameter pipe Line with single outlet 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 not less than 2280 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 than 3.5 Kgs/cm². All other requirements shall conform I.S. 3844 – 1989.

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

3. Ring Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the project in accordance with relevant I.S. specification.

4. Fire service inlets shall have to be installed at the entrance of the premises.

I. SPRINKLER INSTALLATION:

The automatic sprinkler installation shall be provided in Basement area, car parking area, Commercial area (as per commercial area specification sprinkler distance not more than 2.5mtrs.), Common lobby along with all assembly of the said premises as per I.S. 9972. Alarm Gong to be incorporated along with the sprinkler system.

J. FIRE PUMP:

1. 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 install in the building, one such pump shall always be kept on standby preferable be of diesel driven type. A separate Fire Pump shall preferably be made for the total Sprinkler installation of the building.

2. Provision of Jockey Pump 180LPM shall also have to be made kept the water-based system under pressurized condition at all time. The entire pump 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.

L. ELECTRICAL INSTALLATION AND DISTRIBUTION:

1. The electrical installation including Transformers, Switch Gear, 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.

2. The vertical and horizontal electrical ducts shall be sealed at each floor level by fire resisting materials.

3. The electrical installation shall be adequately protected with CO₂/D.C.P. Fire Extinguishers conforming I.S. specification.

4. All electrical installation viz. Transformer, Switch Gear, LT/HT rooms shall be protected with both auto detection and suppression systems as per suitability.

5. For every 230V wiring above false ceiling 660 grade insulated cable shall be used Transformer Switch Gear H.T., L.T. and others electrical rooms shall be at the ground floor level the other electric rooms shall be at least 4 hrs. fire resisting capacity adequate ventilation arrangement shall have to be made in all the rooms, Dry and explosion proof type Transformer shall be installed.

M. Alternative Power Supply: -

Arrangement for alternative power supply shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Deep Tube-Well Pump, Fire Alarm System etc. and also for illuminating the Staircase, Corridors, Lobbies etc. and other places of assembly of the building in case of normal power failure.

N. AUTO DETECTION AND ALARM SYSTEM: -

1. Auto Fire Detection System with the help of Heat and Smoke Detectors shall be installed in all places of below and preferably above false ceiling of the building. The system shall also be made in place of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance



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with I.S. specification.

2. The suppression system shall be made with Fire Extinguishers particularly in Computer, Electrical processing and Data Room and in all rooms of irreplaceable articles.

3. Public Address System linked between all floors and Control Room shall have to be established.

4. 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.Part - IV.

O. GAS BANK (If any):

1. Liquefied Petroleum Gas (LPG) store shall be on the ground level of the said building area which to be constructed at least 2mt. distance between an installation and any building, public place, roadways, and other surroundings. The installation shall be protected from excessive weathering by sun, rain etc. and from tampering by unauthorized person. A lean-to roof with expanded metal on angle iron frame work on the sides is considered suitable for this purpose.

2. Adequate ventilation at ground level i.e. 100 mm. above of gas bank, open to atmosphere and below ceiling level at least 500 mm. long & 300 mm. height (covering minimum 25 percent of wall area) to the outside air shall be provided.

3. Cylinders shall be located on a concrete or brick floor, raised minimum 100 mm. from ground level in case of outdoor installations.

4. FLP fittings, approved by statutory authorities shall be provided for electrical use.

5. The doors of the LPG storage room to be made with non-inflammable materials which shall open outwards & shall have louvers/wire mesh to ensure visibility & ventilation.

6. L.P. Gas detector/sensor to be installed at the gas bank area.

7. Auto suppression system shall have to be provided inside the gas bank as per relevant I.S. specification.

P. Public Address System: -

Public address system linked between all floors and Control Room shall have to be established in the ground floor of the buildings.

Q. 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. The Air Handling Units room shall not be used for storage of any combustible First Aid Fire Fighting arrangement in the style 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.

R. Small Gears: IS : 903 -1993:-

Hose box, 15 M length Permolin delivery hose, Gun Metal short branch of half inch dia. One set at each half landing hydrant should be installed.

S. FIRST AID FIRE FIGHTING SYSTEM:-

First Aid Fire Fighting arrangement in the style 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.

T. 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. 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 staffs shall be conversant with installed Fire Fighting Equipment's 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 equipment's installed in the building to keep them in perfectly good working conditions at all times.

7. A crew of trained Fireman 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. 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



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Installation of the building. On compliance of all the above Life and Fire Safety Recommendation, the Director General, West Bengal Fire & Emergency Services shall be approved for necessary inspection and testing of all 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.

Memo No.: FSR/211862406300000972



Signature valid

Digitally Signed
Name: Baran Kumar Chowdhury
Date: 19-Dec-2024 18:43:21
Reason: D-Sign
Location: E-Dist 2.0

Divisional Fire Officer

West Bengal Fire & Emergency Services

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