



Government of West Bengal
Office of the Divisional Fire Officer
West Bengal Fire & Emergency Services
Station Feeder Road, P.O & P.S Siliguri, District: Darjeeling, Pin - 734005

Memo No.: FSR/0125186237900399

Date : 25-12-2024

From :
Divisional Fire Officer
Darjeeling Division (Member Convenor)
West Bengal Fire & Emergency Services

To :
ALOK KUMAR CHETTRI s/o LATE TULA BAHADUR CHETTRI
TIRANGA MORE ,BANKIM NAGAR ,SILIGURI

Sub : Revised Fire Safety Recommendation of B+G+10 storied commercial cum residential some internal changes of Gr floor,1st floor,& 10th floor Building under group of residential which was previously approved as a B+G+10 storied commercial cum residential building in the name of ALOK KUMAR CHETTRI s/o LATE TULA BAHADUR CHETTRI at the Premises no MOUZA- DABGRAM, PLOT NO- R.S. 498 L.R. 91, J.L. NO- 02, KHATIAN NO- 98/1 (R.S.), 177 (L.R.), SHEET NO- 08(R.S.), 41 (L.R.), PS – Bhaktinagar, Pargana – Baikunthapur, Holding no – VL/100/F/11,Word no- 41(SMC),TIRANGA MORE ,BANKIM NAGAR ,SILIGURI, DIST- JALPAIGURI, 734003

This is in reference to your AIN 211882406300001209 dated 13-Dec-2024 regarding the Revised Fire Safety Recommendation of B+G+10 storied commercial cum residential some internal changes of Gr floor,1st floor,& 10th floor Building under group of residential which was previously approved as a B+G+10 storied commercial cum residential building in the name of ALOK KUMAR CHETTRI s/o LATE TULA BAHADUR CHETTRI at the Premises no MOUZA- DABGRAM, PLOT NO- R.S. 498 L.R. 91, J.L. NO- 02, KHATIAN NO- 98/1 (R.S.), 177 (L.R.), SHEET NO- 08(R.S.), 41 (L.R.), PS – Bhaktinagar, Pargana – Baikunthapur, Holding no – VL/100/F/11,Word no- 41(SMC),TIRANGA MORE ,BANKIM NAGAR ,SILIGURI, DIST- JALPAIGURI, 734003

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



Recommendation :

CONSTRUCTION

1. The whole construction of the proposed building shall be carried out as per approved plan drawing conforming relevant building rules of local Administrative body (Municipal or Panchayat).
2. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specification.
3. Provision of ventilation at the crown of the central core-duct of the building shall be provided.
4. Arrangement shall have to be made for sealing all the vertical ducts by the materials of adequate fire resisting capacity.

Open space & approach

1. The open space surrounding the buildings shall conform the relevant building rules as well as permit the accessibility and manoeuvrability of fire appliances with turning facility having minimum 6.5 M width in each side.
2. The approach roads shall be sufficiently strong to withstand load of fire engine weighing up to 45 M.T.
3. The width and height of the access gates into the premises shall not be less than 5M and 5M respectively abutting the 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.
6. One side 9mtr driveway shall be provided.

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 open able sashes at each floor level in the external wall of the building.
- 3) The width of the staircase shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant building rules which upto date amendment.
- 4) All the staircases shall be extended upto 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 enclosure 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 open able in the direction of escape.
- 6) Two nos Stair & lift lobby shall be pressurised.

LIFT

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- 1) Walls of all lift enclosures shall have a fire rating of two hours; lifts shafts have a vent area not less than 0.2 M²
- 2) Lift Motor Room shall be located preferably on top of the shaft and separated from the shaft by the floor of the room.
- 3) Landing doors in all lift enclosures shall have a fire resistant of not less than half hour.
- 4) All Lift Car door shall have a fire resistance rating of half an hour.
- 5) Exit from the lift lobby, if located in the core of the building, shall be through a self closing smoke stop door of half an hour fire resistance.
- 6) Grounding Switch(es), at ground floor level shall be provided on all the lifts to enable the fire service to ground the lifts..
- 7) Fire Lift marked in the plan with the following specification – to enable fire services personnel to reach the upper floors with the minimum delay, and shall be available for the exclusive use of the firemen in an emergency.
- 8) The lift shall have a floor area of not less than 1.4 m². It shall have landing capacity of not less than 545 Kg (8 persons lift) with automatic closing doors of minimum 0.8 mm width.
- 9) In case of failure of normal electric supply, it shall automatically trip over to alternate supply. This changeover of supply could be done through manually operated changeover switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level and comes to stand still with door open.

Ventilation:-



i) Sufficient ventilation will be provided at every place of the building. It should be designed as auto opening system in case of emergency.

ii) Provision of ventilation at the crown of the central core-duct of the building shall be provided.

iii) Mechanical extractor for smoke venting system shall also be provided. The design operating mechanism of the system shall be such that the system shall operate on actuation of heat / smoke sensitive detector and sprinklers. It shall also have an arrangement to start it automatically or manually. It shall have an interlocking arrangement, so that the extractors shall continue to operate and supply fans shall stop automatically with the actuation of fire detectors. This ventilation system designed 30 air changes per hour than that of the scheduled air changes for normal operation shall be ensured in the system in case of fire or distress call. Mechanical extractors shall have an alternative source of power supply.

iv) Smoke venting facilities for safe use of escape routes shall be automatic in action with manual control in addition in the windowless (sealed box type) buildings.

In case of Air Condition (IS 659:1991):-

AIR-CONDITIONING SYSTEM:- (SPLIT TYPE)

Peak summer is in full swing. During this period, chances of fire incidents become more imminent due to heavy current drawn by AC units. The following precautions must be scrupulously followed so as to avoid possibility of fire incident due to Window / Split type AC unit.

1. Joints must be avoided in AC wires. It is generally found that there are multiple joints in AC wires which is the single most common cause of Electric Fire due to heat generated in it which spreads quickly to inflammable materials like curtains, paper files etc.

2. It must be ensured that all AC units are comprehensively serviced before operation and filter is cleaned regularly through authorized service agency which increases cooling as well as results in less electric consumption.

3. Never use AC units on normal plug points or temporary extension boards except on covered MCB's.

4. Switch off air-conditioners, lights, fans, exhaust fans, heat convector, fax machines, computer monitors, printers /scanners/UPS, inverters, photocopiers, TVs and other office equipments when they are not in use. Switch on only those lights fans, air-conditioners or other equipments which are required for functioning office. Do not leave air-conditioners, heat convector, lights, fans and other electrical equipments and gadgets in 'ON' position when not required.

5. Keep the doors / Windows of air-conditioned rooms close to avoid loss of conditioned air. Provide automatic door closers.

6. Use air-conditioner fan/blowers and fans at low speed.

7. In summer reduce load on air-conditioners by putting curtains/blinds/shades on windows.

8. Window type air-conditioners/split type AC's being highly energy intensive equipments; they should be serviced at least thrice in a year as per the recommendations of manufacturers. The servicing included cleaning of air filters, cleaning of condensers/cooling coil, service and oiling of fan motors, checking of fasteners, checking of electrical spares, checking of current/voltage and checking of room temperature and grill temperature.

9. Replace old air-conditioners which have out-lived their useful life i.e. 7 years as per Competent authorised agency maintenance manual 2012 and have become unserviceable with star rated Energy Efficient air conditioners.

AIR-CONDITIONING SYSTEM:- (WINDOW TYPE)

Some of the preventive measures are produced below which can help in reducing the chances of fire.

1. Switch off all Electrical/Electronic equipments when leaving office- it is noted that in some rooms Electrical/Electronic gadgets are not switched off after office hours, which becomes a major fire risk during night. To avoid fire incidents due to overheating/short circuiting of these equipments it must be ensured that all Electrical/Electronic gadgets are switched off after use/ office hours.

2. Don't plug too many Electrical appliances in one socket- It is found that in some of the rooms more than one Electrical/Electronic gadgets are used on one socket outlet with the help of extension boards. It should be ensured that only one equipment of suitable capacity be used on each socket to avoid overloading of the circuit.

3. Avoid arbitrary installation of AC units – It is seen that some departments / Ministries are putting AC units through private vendors on temporary wiring which may lead to fire due to overheating or short circuit. It is requested that no AC should be installed without getting clearance from Competent authorised agency.

4. No loose joints in AC wiring – Some ministries/ Departments are maintaining window/split type AC units



through their private vendors. The ministries/Departments who are maintaining ACs through their private vendors must be ensured that there should not be any joint in the wire between socket outlet and AC unit because loose joints in the air conditioning wires can lead to electrical short circuit/fire. All AC wires should be joint free.

5. Good housekeeping – Good housekeeping reduces possibility of a fire occurring. Old unused furniture/Almirah's should not be placed in the rooms and staircases / corridors. All dead telephone/intercom wires should be removed before being replaced with new ones.

6. Clear space in front of switch board in the rooms – it must be ensured by occupants of the rooms that there should be clear space (minimum 60 cm) in front of switch boards located in the room. There should not be any combustible material near the switch boards.

7. All Electrical/ Electronic equipment purchased by various ministries/Departments must be ISI marked. Plug tops should also be ISI marked.

REFUGE AREA:

1. Refuge area is not less than 18.45 sqm. and shall be provided on the external wall with cantilever projection or other suitable means at above 23.10 mtr. 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 Service Ladder from the ground level.

.FIRE FIGHTING WATER

Underground water reservoir having water capacity of 150000 ltrs. and overhead water reservoir having capacity of 25000..ltrs. exclusively for fire fighting 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.

BASEMENT

1. The basement shall be adequately ventilated.

2. The additional staircase from the open air as shown in the drawing shall be constructed besides the ramp conforming relevant I.S. specification.

3. The basement shall be protected with Auto sprinkler system.

4. Mechanical extractor for smoke venting system from basement levels shall also be provided. 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.

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

6. Mechanical extractors shall have to be designed to permit 30 air changes/hour in case of fire and shall be incorporated with an alternate source of power supply, for normal operation air changes shall be 12-15 air changes per hour.

AUTOMATIC SPRINKLER SYSTEM (IS 15105:2021)

The automatic sprinkler system shall have to be installed in the basement and commercial part of the building .Alarm Gong to be incorporated along with the sprinkler system.

Electrical Installation-

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.Transformer to be protected by High Velocity Water Spray Projection System as per relevant I.S. specification.

5.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.

Pumps for fire fighting Installation (IS 12469:1988):-

i) The standard code of practice recommended that all water based fixed firefighting installations



should be fed by two separate automatic pumps, one of which should act as stand by. Each pump should be designed to deliver water at required pressure and discharge, taking into account the height and volume of the building.

ii) The Fire pumps should be provided near the underground static water storage tank with minimum pressure of 3.5 kg. / sq. cm. at terrace level or farthest point.

iii) One electric and one diesel pump of capacity 2850 LPM and One electric pump of capacity 180 LPM should be installed.

iv) The pumps should be installed and arranged in such manner so that it will start automatically due to fall in pressure as prefixed in the installation by installing a Jockey pump. Provision of Jockey pump shall also be made to keep the water-based system under pressurized condition at all times.

v) All the pumps shall be so designed as to supply water at the designed pressure and discharge into the water-based system which shall be installed in the buildings.

vi) An independent identical pump for the purpose of sprinkler installation shall be made available. All such arrangement shall be done as per above code of practice.

vii) All the pumps shall be incorporated with both manual and auto starting facilities .

DETECTION ALARM SYSTEM I.S. 2189-1988.

1. Manually operated Electrical Fire Alarm System with at least three numbers of break glass type call boxes fitted with Hooters shall be installed for residential floors.

2. Auto Fire Detection System with the help of Heat and Smoke Detectors shall be installed in Basement and commercial part of the building.

Yard Hydrants

Yard Hydrant / Landing Valve IS 13039:2014 shall have to be installed as per requirement.

ALTERNATE POWER SUPPLY

Arrangement shall have to be made to supply of power with the help of generator to operate at least fire pump, illumination of staircase, corridors etc. and other places of assembly area in case of normal power failure.

FIRST AID FIRE FIGHTING SYSTEM

First Aid Fire Fighting arrangement (Extinguisher) 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.

GENERAL RECOMMENDATION

1. Fire notice for firefighting and evacuation from the building shall be prepared and be displayed at all vulnerable place of the building as per clause 4.11 Annex D of N.B. Code.

2. Floor number and direction sign of escape shall be displayed prominently as per clause 4.11 Annex D of N.B. Code.

3. The employees and security staff shall be conversant with installed firefighting equipment of the building on to operate in the event of fire and testing as per clause 4.11 Annex D of N.B. Code.

4. Arrangement shall be made for regular checking, testing and proper maintenance of all the fire safety installation and equipment installed in the building to keep them in perfectly good working conditions at all times.

5. Mock fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.

6. Considering the gravity of growing hazard in the township, a crew of trained firemen under one experienced officer shall be maintained round the clock along with water tender (type-B) conforming I.S. 948 : 1983.

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.



Divisional Fire Officer

West Bengal Fire and Emergency Services