



Government of West Bengal
Office of the Divisional Fire Officer
West Bengal Fire & Emergency Services
Bauxarfidder Road, Alipurduar, Pin:- 736121

Memo No.: FSR/211862406300009031

Date : 23-12-2024

From :
Divisional Fire Officer
Alipurduar Division
West Bengal Fire & Emergency Services

To :
Smt. Ila Brahma, Sri. Jaydeb Brahma, Sri. Ajoy Kumar Brahma, Smt. Jhuma Brahma Hui, Sri. Haradhan Brahma & Sri. Susen Das
MOUZA-PASCHIM JITPUR,J.L. NO-49,PLOT NO-3805 P,3806 P,(R.S.),4031(L.R.),WARD NO-01,ARABINDA NAGAR,P.S. & DIST-ALIPURDUAR

Sub: Fire Safety Recommendation of proposed G plus four type Residential flat Building..

Memo No.: FSR/211862406300009031

This is in reference to your AIN 211862406300009031 dated 09-Dec-2024 regarding Fire Safety Recommendation of proposed G plus four type Residential flat Building.

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 :

Recommendations:-As per NBC & Fire risk assessment,

A) Construction Part:-

- i) The whole construction of the proposed building shall be carried out as per approved plan of the Municipality/local authority & conforming the relevant building rules of said local authority and approved by the dept. which is being handed over .
- ii) The floor area exceeds 500 sq.miter shall be suitably compartmented by separation walls up to ceiling



The authenticity of this document can be verified by accessing the URL: edistrict.wb.gov.in and then clicking on the 'Verification of Digitally Signed Document' link and keying in Unique Number : 211862406300009031

level having at least two hrs fire resisting capacity.

iii) The interior finish decoration of the building shall be made of low flame spread materials conforming I.S Specification.

iv) All construction materials should be of four hrs. Fire resisting type.

v) Doors & windows should be of at least 2 hrs of fire resisting type.

vi) All opening of services ducts, void, gap, joints etc. should be sealed with fire check materials.

B) Open Space & approach:-

i) 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.

ii) The approach roads shall be sufficiently strong to withstand the load of fire engine weighting up to 45 M.T.

iii) The width and height of the access gates into the premises shall not be less than 4.5 meters & 5 meters respectively abutting the roads.

C) Means of escape: -

i) The Staircases of the building shall be enclosed type & construction shall be made of bricked/RCC type having fire resistance capacity not less than 4 hrs.

ii) Time of evacuation should be as per I:S 1644-1988 i.e. 2.5 minutes.

iii) The width of the staircases shall be 1.35 meters. Corridors of the building and the exit doors shall conforming the relevant building rules.

iv) The staircases shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.

v) In no way the travel distance from any point of the building exceeds the limit of 22.5 meters.

vi) 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.

D) Electrical Installation: 1946:1982:- (I:S-694)

i) All electrical installation should be done in accordance with National Electrical code & part –viii “Building Service” section -2 “Electrical installation” good practice.[4(10)].

ii) All cable should be of FRLS type & all wiring should be done by the copper wire along with appropriate gauge .

iii) Electrical installation shall be tested by the licensed Electricians.

E) Alternate power supply:-Arrangement shall be made to supply power with the help of a Generator to operate at least the fire pump, pump for deep tube-well , illumination of stairs, corridors, means of escape etc. in case of normal power failure.

F) Terrace Tank: -One Terrace Tank of capacity Minimum 25000 liter should be installed in the building along with suitable terrace pump & wet riser cum down comer system for residential purposes otherwise.

G) Hose Reel System: -IS 884-1985, the Hose reel hose system should be provided at each floor of the building. The internal dia of the said hose reel shall be 19 mm to 32 mm and the discharge capacity not less than 22.5 LPM. While the length of the hose reel not more than 36.50 meters. The distance of such Installation should be in such a way that no part of the floor is more than 6 meters distance from a hose nozzle when fully extended.

H) Pumps for firefighting Installation.IS-12469-1988. Main pump capacity 900 lpm and jockey shall be 180 lpm capacity.

i) The pump 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. As per NBC the discharge capacity of the said pump minimum 900 liters per minutes,

ii) 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 building.

iii) One such pump shall always be kept on stand by preferably be of diesel driven type.

iv) All the pumps shall be incorporated with both normal and auto starting facilities , the suction of the pump shall preferably of positive type or in case of negative suction the system shall be wet riser- cum- down comers with suitable terrace pump fitted with over head tank..

I) Small gears:-I:S 903-1993:- Hose box, 15 meters permoline delivery hose/CRL & Gun metal short branch half inch dia @ one set each at or near all the pillar hydrant, landing valve on all floors of the building should be installed.



J) Sprinkler System: -IS:9972:2002:-As per the code of practice the parking part of the building should be protected by this system along with if any vulnerable part is there as per risk factors.

K) First aid firefighting system: -IS 2190-1992. Sufficient Nos. of Portable fire extinguishers of ABC type, Water type and Sand and water bucket should be provided at different places of the building and it should be within the reach of all concern as stated in the IS Code .

L) Lighting Protection of the Building: - This protection for buildings shall be provided as given in Part-VIII building services, section-2 electrical installation.

M) In case of Lift:-

i) The walls of the lift enclosures shall be at least two hrs. fire resisting type and collapsible gates shall not be permitted. The lift materials should be 4 hrs. fire resisting types, the door of the lift should be 1 hr. fire resisting type, the landing door should be ½ hr. fire resisting type and area of the lift should be minimum 1.4 sq.meters.

ii) The load bearing capacity of the lift should be minimum 8 persons.

iii) In case of power failure it shall automatically trip over to alternate power supply. This change over of supply could be done through manually operated change over switch alternatively, the lift shall be so wired that in case of any power failure, it comes down at the ground floor and comes to stand still with door open.

iv) A sign shall be posted and maintained on every floor at or near the lift indicating that in case of fire , occupants shall use the stair unless instructed otherwise. The sign shall also contain a plan for each floor showing the locations of stairways.

N) General recommendations: -

i) Mock drill & evacuation drill should be conducted periodically & in this regard a resister for the recording of mock fire drill , evacuation drill ,testing and checking of whole fire fighting installation ,electrical installation should be maintained & shall be liable to produce the same to the authorized Officer of this department on demand.

ii) Fire notice should be provided and shall be displayed at all places of the building as per clause 5.5 of N.B C.

iii) Floor No. and Directional Sign of escape route should be displayed prominently as per clause 5.5 of the N.B Code.(Auto glow type).

iv) All the occupants and other peoples shall be conversant with the installed fire fighting equipments of the building so that they can operate the same in case of exigency.

v) Arrangement shall be made for regular checking, testing and proper maintenance of all fire fighting equipments and keep them in good working condition at all time it should be written in the Register.

vii) Good housekeeping should be maintained.

Note>-The Fire Service recommendations are issued subject to the free from any Court Case or legal re-encumbrances.

Memo No.: FSR/211862406300009031

Recommendations:-As per NBC & Fire risk assessment,

A) Construction Part:-

i) The whole construction of the proposed building shall be carried out as per approved plan of the Municipality/local authority & conforming the relevant building rules of said local authority.

ii) The floor area exceeds 500 sq.meter shall be suitably compartmented by separation walls up to ceiling level having at least two hrs fire resisting capacity.

iii) The interior finish decoration of the building shall be made of low flame spread materials conforming I.S



Specification.

- iv) All construction materials should be of four hrs. Fire resisting type.
- v) Doors & windows should be of at least 2 hrs of fire resisting type.
- vi) All opening of services ducts, void, gap, joints etc. should be sealed with fire check materials.

B) Open Space & approach:-

- i) 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.
- ii) The approach roads shall be sufficiently strong to withstand the load of fire engine weighting up to 45 M.T.
- iii) The width and height of the access gates into the premises shall not be less than 4.5 meters & 5 meters respectively abutting the roads.

C) Means of escape: -

- i) The Staircases of the building shall be enclosed type & construction shall be made of bricked/RCC type having fire resistance capacity not less than 4 hrs.
- ii) Time of evacuation should be as per I:S 1644-1988 i.e. 2.5 minutes.
- iii) The width of the staircases shall be 1.35 meters. Corridors of the building and the exit doors shall conforming the relevant building rules.
- iv) The staircases shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.
- v) In no way the travel distance from any point of the building exceeds the limit of 22.5 meters.
- vi) 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.

D) Electrical Installation: 1946:1982:-(I:S-694)

- i) All electrical installation should be done in accordance with National Electrical code & part –viii “Building Service” section -2 “Electrical installation” good practice.[4(10)].
- ii) All cable should be of FRLS type & all wiring should be done by the copper wire along with appropriate gauge .
- iii) Electrical installation shall be tested by the licensed Electricians.

E) Alternate power supply:-Arrangement shall be made to supply power with the help of a Generator to operate at least the fire pump, pump for deep tube-well , illumination of stairs, corridors, means of escape etc. in case of normal power failure.

F) Terrace Tank: -One Terrace Tank of capacity Minimum 25000 liter should be installed in the building along with suitable terrace pump & wet riser cum down comer system for residential purposes otherwise.

G) Hose Reel System: -IS 884-1985, the Hose reel hose system should be provided at each floor of the building. The internal dia of the said hose reel shall be 19 mm to 32 mm and the discharge capacity not less than 22.5 LPM. While the length of the hose reel not more than 36.50 meters. The distance of such Installation should be in such a way that no part of the floor is more than 6 meters distance from a hose nozzle when fully extended.

H) Pumps for firefighting Installation.IS-12469-1988. Main pump capacity 900 lpm and jockey shall be 180 lpm capacity.

- i) The pump 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. As per NBC the discharge capacity of the said pump minimum 900 liters per minutes,
- ii) 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 building.
- iii) One such pump shall always be kept on stand by preferably be of diesel driven type.
- iv) All the pumps shall be incorporated with both normal and auto starting facilities , the suction of the pump shall preferably of positive type or in case of negative suction the system shall be wet riser- cum- down comers with suitable terrace pump fitted with over head tank..

I) Small gears:-I:S 903-1993:- Hose box, 15 meters permoline delivery hose/CRL & Gun metal short branch half inch dia @ one set each at or near all the pillar hydrant, landing valve on all floors of the building should be installed.

J) Sprinkler System: -IS:9972:2002:-As per the code of practice the parking part of the building should be protected by this system along with if any vulnerable part is there as per risk factors.

K) First aid firefighting system: -IS 2190-1992. Sufficient Nos. of Portable fire extinguishers of ABC type, Water type and Sand and water bucket should be provided at different places of the building and it should



be within the reach of all concern as stated in the IS Code .

L) Lighting Protection of the Building: - This protection for buildings shall be provided as given in Part-VIII building services, section-2 electrical installation.

M) In case of Lift:-

i)The walls of the lift enclosures shall be at least two hrs. fire resisting type and collapsible gates shall not be permitted. The lift materials should be 4 hrs.fire resisting types, the door of the lift should be 1 hr. fire resisting type, the landing door should be ½ hr.fire resisting type and area of the lift should be minimum 1.4 sq.meters.

ii)The load bearing capacity of the lift should be minimum 8 persons.

iii)In case of power failure it shall automatically trip over to alternate power supply. This change over of supply could be done through manually operated change over switch alternatively, the lift shall be so wired that in case of any power failure, it comes down at the ground floor and comes to stand still with door open.

iv) A sign shall be posted and maintained on every floor at or near the lift indicating that in case of fire , occupants shall use the stair unless instructed otherwise. The sign shall also contain a plan for each floor showing the locations of stairways.

N) General recommendations: -

i)Mock drill & evacuation drill should be conducted periodically & in this regard a resister for the recording of mock fire drill , evacuation drill ,testing and checking of whole fire fighting installation ,electrical installation should be maintained & shall be liable to produce the same to the authorized Officer of this department on demand.

ii) Fire notice should be provided and shall be displayed at all places of the building as per clause 5.5 of N.B C.

iii) Floor No. and Directional Sign of escape route should be displayed prominently as per clause 5.5 of the N.B Code.(Auto glow type).

iv) All the occupants and other peoples shall be conversant with the installed fire fighting equipments of the building so that they can operate the same in case of exigency.

v) Arrangement shall be made for regular checking, testing and proper maintenance of all fire fighting equipments and keep them in good working condition at all time it should be written in the Register.

vii) Good housekeeping should be maintained.

Note>-The Fire Service recommendations are issued subject to the free from any Court Case or legal re-encumbrances.

Memo No.: FSR/211862406300009031



Divisional Fire Officer

West Bengal Fire & Emergency Services

The authenticity of this document can be verified by accessing the URL: edistrict.wb.gov.in and then clicking on the 'Verification of Digitally Signed Document' link and keying in Unique Number : 211862406300009031