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GOVERNMENT OF WEST BENGAL  
OFFICE OF THE DEPUTY DIRECTOR (SOUTH ZONE)  
WEST BENGAL FIRE & EMERGENCY SERVICES  
CITY CENTRE, DURGAPUR -16.

Memo No. Dy.DFS/ 1484 /2013

Dated: 19/8 /2013

From: The Deputy Director (South Zone),  
City Centre, Durgapur-16,  
West Bengal Fire & Emergency Services.

To : 1) Trilok Singh,  
2) Dilip Singh & ors.,  
G.T.Road, Murgasol, Asansol-3,  
Dist. Burdwan.

**Sub** : Fire Safety recommendation/ Fire Safety Certificate in connection with  
N.O.C, for the proposed construction of a B+G+XIV storied Residential apartment  
building in favour of Trilok Singh, Dilip Singh & ors. Over Plot No. R.S./L.R.  
20211,20212, 20213,20214,20215, Kh.No. R.S/L.R. 2371, 2382,18750,J.L.No.20,  
Mouza: Asansol Municipality, Murgasol, Asansol, Dist. Burdwan.

**Ref:** His application dated 13/8/2013

*This is to reference to your letter dated 13/8/2013 regarding Fire Safety recommendation/  
Fire Safety Certificate in connection with N.O.C, for the proposed construction of a B+G+XIV  
storied Residential apartment building in favour of Trilok Singh, Dilip Singh & ors. Over Plot No.  
R.S./L.R. 20211,20212, 20213,20214,20215, Kh.No. R.S/L.R. 2371, 2382,18750,J.L.No.20,  
Mouza: Asansol Municipality, Murgasol, Asansol, Dist. Burdwan.*

*The plan drawing submitted by you was scrutinized and marked as found necessary from Fire  
Safety point of view. In returning with one set of Plan drawing and Fire & Life safety  
recommendation issuing from this office in favor of the aforesaid building subject to the  
compliance of the same recommendations.*

*Enclosed; Recommendation along with  
One set of approved plan drawings.*

DEPUTY DIRECTOR (SOUTH ZONE)  
WEST BENGAL FIRE & EMG. SERVICES.

## RECOMMENDATIONS

A. As the building will be high rise .The following safety measures shall be provided during construction:-

- 1) Dry riser of minimum 100 mm diameter pipe hydrant outlets on the floor constructed with a Fire Service in let to boost the water in the Dry Riser and maintenance should be as per the requirements laid down in good practice (4(6)) of N.B.C. of India 2005.
- 2) Drums filled with water of 2000 lts capacity with two Fire Buckets on each floor shall be provided.
- 3) A water storage tank of minimum 20,000 lts capacity which may be used for other construction purpose as well as fire fighting purpose also shall be provided.

B. 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 Municipal Corporation). & N.B.C. of India (upto date amendment).
2. The floor area exceeds 750m<sup>2</sup> 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. specification.
4. Provision of ventilation at the crown of the central core-duct of the building shall be provided.
5. For underground structures, the use of combustible constructional materials and other than class-A interior finish should be provided.

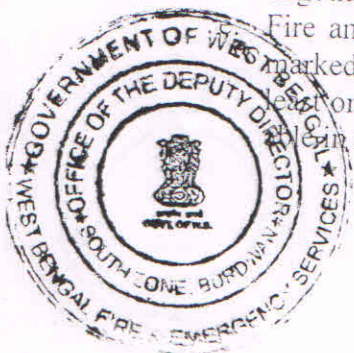
C. OPEN SPACE & APPROACH ROAD :-

- a. The open space of the surrounding building shall be kept clear to the sky and conform the relevant building rules as well as to permit the easy accessibility and maneuverability of Fire Appliances with turning facilities..
- b. The approach road shall be sufficiently strong to with stand the load of Fire Engine weighting up to 20 M.T.
- c. The width and height of the access gates into the premises shall not be less than 4.5 M and 5 M respectively

D. STAIR CASES :-

- a. The stair case of the building shall be enclosed type and shall be two nos. at least Entire construction shall be made of bricks/R.C.C. type, having fire resisting capacity not less than 4 hours.
- b. The stair case 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.
- c. The width trend, riser flight of the stair cases, corridors and the exit doors corridor, passage way, lobby etc. shall conforming the relevant building rules with up to date amendments.
- d. All the stair case shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.  
Fire and smoke check doors at the entrances of all the stair case 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 windows fitted with self closing type open in the direction of escape.

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- f. At the periphery of the basement, at least 2 hrs fire resisting enclosed type stair cases shall be constructed. The entry of such stair cases shall be made at ground level only from open air and in such position that smoke from any fire in the basement shall not obstruct any exit serving upper floors of the building.
- g. Adequate means of escape from the underground structures shall be provided in accordance with relevant codes and I.S. specifications.

**E. BASEMENT:**

1. The basement shall be adequately ventilated.
2. Additional stair case from the air shall be constructed beside the ramp conforming I.S. specification.
3. The basement shall be protected with Auto sprinklers system/Hose Reel System etc.
4. Mechanical extractor for smoke venting system from the basement level shall be provided. The system shall be so design as to operate on actuation of heat/smoke sensitive detector or sprinkling. It shall also have an arrangement to start manually.
5. Mechanical extractors shall have an alternative source of supply.
6. Use group of the Basement shall be only for Car parking and Service purpose.
7. All other recommendations in this system shall be incorporated as per N.B.C. of India 2005 part IV.

**F. 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 at each block shall be designed for fire lift. The word " FIRE LIFT " shall conspicuously written at ground floor.
3. All other requirements in this regard shall conform the sec. 5 of Part VIII of N.B.C. of India, 2005.

**G. REFUGE AREA :**

- a. Refuge area is not less than 15 sq. m. shall be provided on the external wall with cantilever projection or other suitable means above at 24 m. and 39 m. level of the building as shown in the drawing
- b. The refuge area shall be of fire resisting construction and protected with self closing FCD at the entrance from the corridor or the staircase lobbies.
- c. The position of refuge areas shall be such that they are negotiable by the fire service ladder from the ground.

**H. FIRE FIGHTING WATER :**

Underground water reservoir having water capacity at 2 lakhs lts. capacity exclusively for fire fighting purpose with replenishing arrangements @ 1000 lts./min. from two different sources of water supply shall be provided. The water reservoir shall be full at all time.



I. HYDRANT SYSTEM :-

- a. The building shall be provided with wet riser of 200mm interval diameter pipe line with provision of landing valves at the staircase landing/half landing 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 2850lts./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/cm<sup>2</sup> . All other requirements shall conform I.S. 3844-1989
- b. Provision for Hose-Reel in conjunction with wet riser –cum-down comer shall be made at each floor level conforming the relevant I.S. Specifications.
- c. Yard Hydrant/Ring Main Hydrant with provision of four numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.

J. FIRE PUMP :-

Provision of the fire pump shall have to be made to supply water at the rate designed pressure and discharge into the Mater 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.

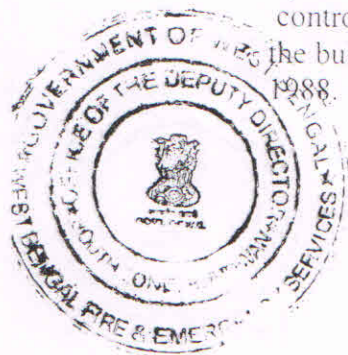
Provision of Jockey Pump shall also have to be made to keep the Water based system under pressurized condition at all the time. All the pumps shall be in corporate with both manual and auto starting facilities. The suction of pumps shall preferably of positive type.

K. ELECTRICAL INSTALLATION & DISRIBUTION (Section 2 of Part 8 N.B.C.2005):

- 2) 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.
- 3) The vertical ducts shall be sealed at alternative floor level.
- 4) The electrical installation shall be adequately protected with C02 /D.C.P. or medium velocity /projector system.
- 5) **Alternative Power supply** :- Shall have to be made to supply power with the help of generator to operate at least the Fire pump , Pump for deep tube well, Fire Alarm system. Fire lift etc. and also for illuminating the stair case corridors etc., and other places of assembly of the building in case of normal power failure.
- 6) All other requirements in this regard shall conform the sec. 2 of part VIII of N.B.C. of India 2005.

L. DETECTION, ALARM & SUPPRESSION SYSTEM :-

- 1) Manually operated Electrical Fire Alarm system with at least three numbers of break glass type call boxes fitted with Hooters along with public address system. talk back system at each floor connecting with audio-visual panel board shall be made in control Room. The control Room shall be located at the entrance of ground floor of the building. other requirements of the system shall be made conforming I.S. 2189-



M. AIR CONDITION 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 unit room shall not be used for storage of any combustible materials.
5. All other requirements in this regard shall be provided as per N.B.C. of India 2005 laid down under sec. 3 of Part VIII.

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. 2190-1992.

: GENERAL RECOMMENDATIONS:-

- 1) Fire Notice for fire fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- 2) Floor numbers and directional Sign of escape route shall be displayed prominently.
- 3) 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.
- 4) 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.
- 5) A crew of trained Fireman under the experienced officer shall be maintained round the clock for safety of the building.
- 6) Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building liaison with the local; Fire Brigade.
- 7) Green view concept of the building and premises may be provided with water body, roof Garden, wind flowers etc.
- 8) Each year a certificate is to be obtained from this office certifying about the satisfactory services, performance of all the life and fire safety arrangements and installation of the building.
- 9) Any changes/Deviations the nature of use group of the building other than approved plan drawings shall not be permitted with out Prior permission from this office.
- 10) To eliminate Fire Hazardous, good house keeping both inside and out side the building shall be strictly maintained by the occupants/ or the owner of the building.
- 11) The lightning protection for the buildings shall be provided under sec. 2 of Part VIII "Building Services" of N.B.C. of India 2005.
- 12) After completion of the total construction work and installation of total fire safety measures of the building, a letter of information must be communicated to this office for further inspection to issue the final N.O.C. of the building if satisfied by the inspecting authority of this Department.
- 13) Violation any of the above recommendation the Provisional N.O.C. shall treated as cancelled and legal action as per Fire Service Act & Rules 1950 (Amended up to date) may be taken in force.

