

**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/ 2231 / 18 /24Pgs(S)/IB/1375/16 (1375/16)

Date: 23.04.18

From: The Deputy Director (Headquarter),  
West Bengal Fire & Emergency Services

To: Mr. Mukul Hasan, Administrator,  
SHIS Eye Care Hospital,  
P.O.: Bhangar, Dist.- 24 PGS (S),  
PIN: 743502



**Subject :** Fire Safety Recommendation for existing construction of Four number of Blocks (02 nos. IV storied + 02 nos. III storied) under group Institutional Building at the premises No. R.S. DagNo. 2776 & 2777, RS Khatian No. 1053, 1054, 1405 & 1471 under Bhogali-2 Gram Panchayet of Bhangar-II Panchayet Samity, PS.- Kashipur, Dist- 24 PGS(S), PIN-743502.

This is in reference to your letter No: Nil dt. 29.09.17 regarding the Fire Safety Recommendation for existing construction of Four number of Blocks (02 nos. IV storied + 02 nos. III storied) under group Institutional Building at the premises No. R.S. Dag No. 2776 & 2777, RS Khatian No. 1053, 1054, 1405 & 1471 under Bhogali-2 Gram Panchayet of Bhangar-II Panchayet Samity, PS.- Kashipur, Dist- 24 PGS(S), PIN-743502.

The plan drawings submitted by you were scrutinized and marked as found necessary from fire safety point of view. In returning one set of plan drawings with recommendation, this office is issuing Fire Safety Recommendation in favour of the aforesaid building subject to the compliance of the following Fire Safety Measures.

Enclo. :

1. One set of plan
2. Recommendation

Deputy Director (Headquarter)  
West Bengal Fire & Emergency Services

## RECOMMENDATION

### A. CONSTRUCTION:

1. The whole construction of the existing building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipal Body.
2. The interior finish decoration of the building shall be made of low flame spread materials conforming to I.S. specifications.
3. Arrangements shall have to be made for sealing all the vertical & horizontal ducts by the materials of adequate Fire resisting capacity.

### B. OPEN SPACE & APPROACH:

1. The approach road shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
2. The entrance and exit gates shall have to be provided as per relevant standard/rules of the local body and as shown/marked in the plan.

### C. STAIRCASE:

1. An alternate staircase shall have to be constructed as shown/marked in the plan.
2. The staircase of the building shall be enclosed type. Entire construction shall be made of bricks / RCC type having Fire Resisting Capacity not less than 2 hours.
3. 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.
4. The staircases shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.
5. Horizontal Exit - Upper floors of the adjacent blocks shall be connected through horizontal gangways for the purpose of Escape as marked/shown in the plan.



### D. FIRE FIGHTING WATER:

The underground water reservoir of 1,50,000 litres and Overhead water reservoir of 20,000 litres shall be provided exclusively for Fire Fighting purpose with replenishing arrangements @1000 lts/min preferably from two different sources of water. The water reservoirs shall have overflow arrangement with the domestic water reservoir to prevent stagnancy of water. The water reservoirs shall be kept full at all time.

### E. WATER BASED SYSTEM :

1. The building shall be provided with Wet Riser of 100mm 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 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/cm<sup>2</sup>. 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.

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Ring Main/ Yard Hydrant with provision of adequate numbers Hydrant points shall be installed surrounding the building in accordance with relevant I.S. specification.

4. Two way Fire Brigade Inlet shall be provided with Yard Hydrant/ Ring Main Hydrant system.
5. Sprinkler Installation - The automatic Sprinkler installation shall be provided in the entire floor area of the building having Institutional occupancy.

**F. FIRE PUMP:**

Provision of Fire pump shall have to be made to supply Water at the rate 2280 LPM discharge into the Water based system which shall be installed in the building and shall maintain minimum 3.5 KG /CM<sup>2</sup> pressure. 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 all the time. All the pumps shall be incorporated with both auto and manual 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 connected to overhead tank.

**G. 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 specifications 1946 - 1982.
2. The vertical ducts shall be sealed at alternative floor level.
3. The electrical installation shall be adequately protected with CO2/ D.C.P Fire Extinguishers.
4. Alternative Power Supply -

Arrangements shall have to 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, etc and also for illuminating the staircase, corridors etc. and other places of assembly of the building in case of normal power failure.

**H. Detection and Alarm**

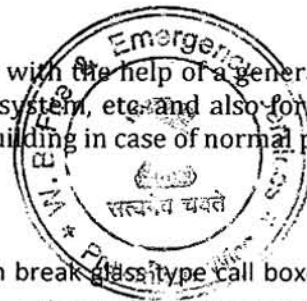
1. Manually operated Electrical Fire Alarm system with break glass type call boxes fitted with Hooters along with Public Address System at each floor connecting with visual panel board shall be provided conforming relevant standards.
2. Auto Fire Detection System with the help of Smoke and Heat detectors shall be installed in all places of below and above false ceiling of the building connecting with visual panel board shall be provided conforming relevant standards. The other requirements of the system shall be made in accordance with 2189-1988.

**I. FIRSTAID FIRE FIGHTING SYSTEM:**

First Aid firefighting 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.

**J. GENERAL RECOMMENDATIONS:**

1. Fire license shall have to be obtained for storing and processing with LPG and other combustible articles (if any).



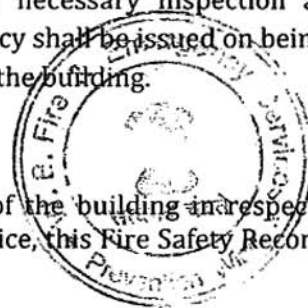
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Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.

3. Floor numbers and directional sign of escape route shall be displayed prominently.
4. The employees and the security staff shall be conversant with installed Fire Fighting equipment's of the building and to operate in the event of Fire and Testing.
5. 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.
6. To eliminate risk of Fire Hazards, Good House Keeping both for insides and outside of the building shall be strictly maintained.
7. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of the building.
8. 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 Life and Fire Safety arrangements and installation of the building.

On compliance of all the above Fire and Life Safety Recommendation, the Director General, West Bengal Fire and 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 installations of the building.

N.B.: Any deviation and changes the nature of use of the building in respect to approved plan drawing, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.



*[Handwritten Signature]*  
20/11/18

**Deputy Director (Headquarter)  
West Bengal Fire & Emergency Services**