# GOVERNMENT OF WEST BENGAL OFFICE OF THE DIRECTOR GENERAL WEST BENGAL FIRE & EMERGENCY SERVICES 13-D, Mirza Galib Street, Kolkata – 700 016.

Memo. No.: WBFES/ 5981/14

/Kol.-RB/41/14(41/14)

Date : . 04/12/14

From:

Director in Charge,

Fire Prevention Wings,

West Bengal Fire & Emergency Services.

To

Mr. Arup Chatterjee,

Consulting Architect, M/S, A.Chatterjee & Associates,

M/S, A.Chatterjee & Associates, 142, Bakrahat Road, Word No.-144,

Borough No.-XIV, Kolkata.



Sub: Fire safety recommendation for Proposed construction of G+XII storied under group Residential Building at premises No.-142, Bakrahat Road, Ward No.-144, Borough No.-XIV, P.S.-Thakurpukur, Kolkata.

This is in reference to your letter No.-Nil dated 09.01.2014 regarding Fire safety measure for Proposed construction of G+XII storied under group Residential Building at premises No.-142, Bakrahat Road, Ward No.-144, Borough No.-XIV, P.S.-Thakurpukur, Kolkata.

The plan drawings 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 favour of the aforesaid building subject to the compliance of the following fire safety measure.

Enclo.:

1. One set of plan.

Recommendation.

DIRECTOR IN CHARGE

FIRE PREVENTION WINGS
WEST BENGAL FIRE & EMERGENCY SERVICES

# RECOMMENDATION

#### A. <u>Construction</u>:

- 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 Body (Kolkata Municipal Corporation).
- 2. The floor area exceeds 750m² 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. specifications.
- 4. Provision of ventilation at the crown of the central core-duct of the building shall be provided.
- 5. Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

# B. OPEN SPACE & APPROACH:

- 1. 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.
- 2. The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
- 3. The width and height of the access gates into the premises shall not be less than 4.5M and 5 M respecting abutting the road.

#### 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 wall of the building.
- 3. The width of the staircases shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant building rules and well as rules of the cinematograph Act. With up-to-date amendments.
- 4. All the staircase shall be extended up to 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 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. Collapsible gate shall not be permitted.
- 2. One of the lift shall be designed for Fire Lift. The word "FIRE LIFT" shall conspicuously written at ground floor.
- 3. Lift and Lift Lobby communicate to the basement shall have to pe pressurized as per guide line of N.B.C. -IV, Annex 'C'.

Page 1 of 4

#### E. REFUGE AREA:

(0,

- 1. Refuge area is not less than 15sq. m. shall be provided on the external wall with cantilever projection or other suitable means at 24.7M levels of the building as shown in the drawing.
- 2. The refuge area shall be of Fire resisting construction and protected with self closing F.C.D. 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.

#### F. FIRE FIGHTING WATER:

Underground water reservoir having water capacity at 5,50,000ltrs. and overhead reservoir of 25,000Lts. Capacity exclusively for Fire fighting purpose with replenishing arrangements @ 1000 lts./min. Preferably from two different sources of water supply shall be provided. The Fire Water Reservoir 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.

#### G. FIRE FIGHTING WATER:

- 1. Underground water reservoir having water capacity at 75,000ltrs. and overhead reservoir of 10,000Lts. Capacity exclusively for Firefighting purpose with replenishing arrangements @ 1000 lts./min. Preferably from two different sources of water supply shall be provided. The Fire Water Reservoir 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.
- 2. The deep tube wells for the replenishment of the reservoir shall be incorporated with the auto starting facility with the actuation of auto detection and suppression arrangement of the premises and shall also be connected with duel power supply units.
- 3. Provision of placing Fire Appliances on the underground water reservoir shall have to be made to draw water in case of emergency.

#### H. HYDRANT SYSTEM:

- 1. The building shall be provided with Wet Riser of 150mm 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 2850 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 that 3.5 Kgs/Cm2. All other requirements shall conform I.S. 3844-1989.
- 2. Provision for Hose Reel in conjunction with Wet Riser shall be made at each floor level. Conforming the relevant I. S. Specifications.
- 3. Yard Hydrant/Ring Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S. specification.
- 4. Proper Replenishing Arrangement shall have to be made to keep the O.H.W.R. full at all time.

#### I. FIRE PUMP:

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 installed in the building. One such pump shall always be kept on Stand- by preferably be of diesel driven type.

revention

Page 2 of 4

# J. <u>ELECTRICAL INSTALLATION & DISTRIBUTION</u>:

- 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. specification 1946 1982.
- 2 The vertical ducts shall be supply sealed at alternative floor level.
- 3 The electrical installation shall be adequately protected with CO<sub>2</sub>/D.C.P. or Medium Velocity / Projector System.

#### 4 Alternative Power Supply:

Arrangements shall have to be 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, Fire Lift etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building incase of normal power failure.

# K. DETECTION, ALARM AND SUPPRESSION SYSTEM:

- 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 – 1988.
- Auto fire detection system with the help of Heat and smoke detector shall be installed in all places of below and preferably above false ceiling of the building. The system shall also be made in places of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. 2189-1988.
- 3. The suppression system shall be made with Fire Extinguishers and total flooding system with C02/F.M.-200 particularly in computer and Electrical processing and data room and in a room of irreplaceable articles.
- 4. Hooter will be sounded in such a manner so that an operation of a Detector or Manual Call Point Hooters will sounded on the same floor and immediate alternate floor.

# 5. Public Address System :-

Public address system linked between all floors and Control Room shall have to be established.

# L. 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.
- 4. The air handling units room shall not be used for storage of any combustible materials.

# M. FIRST AID FIRE FIGHTING SYSTEM:

10.

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. 15683 with effect from January 2012.

# N. 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.
- 3 Floor numbers and directional sign of escape route shall be displayed prominently.
- 4 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.
- 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.
- 6 A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the building.
- 7 Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of 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 recommendations, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of the installation, FSC 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

सत्यमेव वयते

cancelled.

DIRECTOR IN CHARGE FIRE PREVENTION WINGS

evention WEST BENGAL FIRE & EMERGENCY SERVICES

# T. R. FORM No. 7

642011006

[See Sub-rule (2) (b) of T. R. 3.06]

# Challan for Deposit of money in the account of GOVERNMENT OF WEST BENGAL

1. Name of the Bank & Branch: R. らえ, Kolkパナル
2. (a) Name of the Treasury:
(b) Treasury Code:
3. Account Code: 0 0 7 0 6 0 1 0 9 0 0 1 1 4
(14-Digits must be filled up properly)  ii 0070, other Administrative Services-60-109-Fire  4. Detail Head of Account: frotection and control-001-fees under the West Bengal Fire  Services Act i A - Service Fees.
5. (a) Amount: Rs. 34,500 -
(b) In Words: Rupees Thirty four thousand five hundred only.
6. By whom tendered-Name & Address: Arcep Challengee P-139 Lake Pd Kalkala 700029
7. Name Designation & Address of the Departmental Officer on whose behalf favour money is paid:  JLE Director General, W.B.F.L.E.S.  13-D, MIRZA GHALIB STREET  KOLKATA - FOOOLG,
8. (a) Particulars and Authority of Deposit: To obtain Five Safety Recommendation 1* (b) T.V. No. & Date of A.C. Bill: DATE - 14/11/14.
9. Accounts Officer by whom adjustable:  Verified  Accountant General (A&E), West Bengal  334
Signature of Departmental Treasury Officer  Depositor's Signature  Aug Challegie
Date: 16.11.14 Treasury Receipted Challan No.
Received payments 4500/4 as per deman Bank Scroll Serial No.  /BF & E. 1/5435/4 Dt 1414.44.  When or 11144  Signature with seal of the Bank
Receipt by Bank Headsundstant (F. F. Wing)  Signature with seal of the Bank
Date:

<sup>1\*</sup>In respect of Challan relating to refund of unspent amount of A.C. Bill.

Particulars of Amount Deposited:

Cash:			Cheques:		
Notes	Amount		Drawee Bank	Cheque No.	Amount
34×1000=	34000	00			
1 × 500 =	500	96			
× 100 =					
× 50 =					
× 20 =	1		No.		
× 10 =		.			
× 5=	<b>√</b> .		*		
Coins =			A PARTICIPATION OF THE PARTICI		
Total	34500	00	Total		

Note 1: Challans are to be presented to the Bank after the Head of Account upto detailed head and other particulars noted on it have been verified by the Departmental Officer on whose behalf money is credited to Government Account. If there is no Departmental Officer at the place where the Treasury is situated this verification will be made by the Treasury Officer. Difficulties may arise because of not quoting the head of account correctly upto the Detailed Head.

Note 2:	Particulars of money tendered should be given in the form given above. The Cheques Drafts
	meant for transfer credit should bear the endorsement "Received Payment by transfer credit to
*	(Head of Account to which creditable)

Note 3: In cases where direct credit at the Bank without verification by Departmental Officer or Treasury
Officer is permissible (e.g. fees payable to the Public Service Commission on account of recruitment, etc.), the Head of Account may be written by the Depositors. The Treasury Officer or Pay & Accounts Officer, Kolkata Pay & Accounts Office may check the Head of Account and make correction, where necessary, when the Challan is received with the Bank's scroll.