



1414
24

भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

KOLK/EAST/B/120224/1390659

मालिक का नाम एवं पता

MERLIN PROJECTS LIMITED

दिनांक/DATE:

05-12-2024

OWNERS Name & Address

"Merlin Oxford" 2nd Floor, 22 Prince Anwar
Shah Road, Kolkata-700033.

वैधता/ Valid Up to:

04-12-2032

ऊँचाई की अनुमति हेतु अनापत्ति प्रमाण पत्र(एनओसी) No Objection Certificate for Height Clearance

1) यह अनापत्ति प्रमाण पत्र भारतीय विमानपत्तन प्राधिकरण (भाविप्रा) द्वारा प्रदत्त दायित्वों के अनुक्रम तथा सुरक्षित एवं नियमित विमान प्रचालन हेतु भारत सरकार (नागर विमानन मंत्रालय) की अधिसूचना जी. एस. आर. 751 (ई) दिनांक 30 सितम्बर, 2015, जी. एस. आर. 770 (ई) दिनांक 17 दिसंबर 2020 द्वारा संशोधित, के प्रावधानों के अंतर्गत दिया जाता है।

1. This NOC is issued by Airports Authority of India (AAI) in pursuance of responsibility conferred by and as per the provisions of Govt. of India (Ministry of Civil Aviation) order GSR751 (E) dated 30th Sep.2015 amended by GSR770(E) dated 17th Dec 2020 for safe and Regular Aircraft Operations.

2) इस कार्यालय को निम्नलिखित विवरण के अनुसार प्रस्तावित संरचना के निर्माण पर कोई आपत्ति नहीं है।

2. This office has no objection to the construction of the proposed structure as per the following details:

अनापत्ति प्रमाणपत्र आईडी / NOC ID	KOLK/EAST/B/120224/1390659
आवेदक का नाम / Applicant Name*	Ashim Kumar Das
स्थल का पता / Site Address*	Premises no. - 98K, G. T. Road, Konnagar, Hoogly, Konnagar, Hooghly, West Bengal
स्थल के निर्देशांक / Site Coordinates*	22 41 29.66N 88 21 21.05E, 22 41 30.87N 88 21 21.14E, 22 41 31.26N 88 21 22.23E, 22 41 30.81N 88 21 22.28E, 22 41 31.19N 88 21 22.99E, 22 41 31.43N 88 21 23.04E, 22 41 29.98N 88 21 24.23E, 22 41 30.32N 88 21 24.28E, 22 41 29.36N 88 21 24.58E, 22 41 29.92N 88 21 24.58E, 22 41 30.28N 88 21 24.58E, 22 41 31.18N 88 21 24.63E
स्थल की ऊँचाई एएमएसएल मीटर में (औसतन समुद्र तल से ऊपर), (जैसा आवेदक द्वारा उपलब्ध कराया गया) / Site Elevation in mtrs AMSL as submitted by Applicant*	8.21 M
अनुमन्य अधिकतम ऊँचाई एएमएसएल मीटर में (औसतन समुद्र तल से ऊपर) / Permissible Top Elevation in mtrs Above Mean Sea Level(AMSL)	83.21 M



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

KOLK/EAST/B/120224/1390659

* जैसा आवेदक द्वारा उपलब्ध कराया गया / As provided by applicant*

3) यह अनापत्ति प्रमाण पत्र निम्नलिखित नियम व शर्तों के अधीन है: -

3. This NOC is subject to the terms and conditions as given below:

क) आवेदक द्वारा उपलब्ध कराए गए स्थल की ऊँचाई तथा निर्देशांक को, प्रस्तावित संरचना हेतु अनुमन्य अधिकतम ऊँचाई जारी करने के लिए प्रयोग किया गया है। भारतीय विमान पत्तन प्राधिकरण, आवेदक द्वारा उपलब्ध कराये गए स्थल की ऊँचाई तथा निर्देशांक की यथार्थता का ना तो उत्तरदायित्व वहन करता है, और ना ही इनको प्रमाणीकृत करता है। यदि किसी भी स्तर पर यह पता चलता है कि वास्तविक विवरण, आवेदक द्वारा उपलब्ध कराए गए विवरण से भिन्न है, तो यह अनापत्ति प्रमाण पत्र अमान्य माना जाएगा तथा कानूनी कार्यवाही की जाएगी। सम्बंधित विमान क्षेत्र के प्रभारी अधिकारी द्वारा एयरक्राफ्ट नियम 1994 (भवन, वृक्षों आदि के कारण अवरोध का विध्वंस) के अधीन कार्यवाही की जायेगी।

a. Permissible Top elevation has been issued on the basis of Site coordinates and Site Elevation submitted by Applicant. AAI neither owns the responsibility nor authenticates the correctness of the site coordinates & site elevation provided by the applicant. If at any stage it is established that the actual data is different, this NOC will stand null and void and action will be taken as per law. The officer in-charge of the concerned aerodrome may initiate action under the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules, 1994".

ख) अनापत्ति प्रमाण पत्र के आवेदन में आवेदक द्वारा उपलब्ध कराए गए स्थल निर्देशांक को सड़क दृश्य मानचित्र और उपग्रह मानचित्र पर अंकित किया गया है जैसा कि अनुलग्नक में दिखाया गया है। आवेदक / मालिक यह सुनिश्चित करे कि अंकित किए गए निर्देशांक उसके स्थल से मेल खाते हैं। किसी भी विसंगति के मामले में, नामित अधिकारी को अनापत्ति प्रमाण पत्र रद्द करने के लिए अनुरोध किया जाएगा।

b. The Site coordinates as provided by the applicant in the NOC application has been plotted on the street view map and satellite map as shown in ANNEXURE. Applicant/Owner to ensure that the plotted coordinates corresponds to his/her site. In case of any discrepancy, Designated Officer shall be requested for cancellation of the NOC.

ग) एयरपोर्ट संचालक या उनके नामित प्रतिनिधि, अनापत्ति प्रमाण पत्र नियमों और शर्तों का अनुपालन सुनिश्चित करने के लिए स्थल (आवेदक या मालिक के साथ पूर्व समन्वय के साथ) का दौरा कर सकते हैं।

c. Airport Operator or his designated representative may visit the site (with prior coordination with applicant or owner) to ensure that NOC terms & conditions are complied with.

घ) संरचना की ऊँचाई (सुपर स्ट्रक्चर सहित) की गणना अनुमन्य अधिकतम ऊँचाई (ए एम एस एल) से स्थल की ऊँचाई को घटाकर की जायेगी। अर्थात्, संरचना की अधिकतम ऊँचाई = अनुमन्य अधिकतम ऊँचाई (-) स्थल की ऊँचाई।

d. The Structure height (including any superstructure) shall be calculated by subtracting the Site elevation in AMSL from the Permissible Top Elevation in AMSL i.e. Maximum Structure Height = Permissible Top Elevation minus (-) Site Elevation.

च) अनापत्ति प्रमाण पत्र जारी करना, भारतीय एयरक्राफ्ट एक्ट 1934, के सेक्शन 9-A तथा इसके अंतर्गत समय-समय पर जारी अधिसूचनाएं तथा एयरक्राफ्ट नियम (1994 भवन, वृक्षों आदि के कारण अवरोध का विध्वंस) के अधीन है।

e. The issue of the 'NOC' is further subject to the provisions of Section 9-A of the Indian Aircraft Act, 1934 and any notifications issued there under from time to time including, "The Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules, 1994".

छ) कोई भी रेडियो/ टीवी एंटीना, लाइटनिंग अरेस्टर, सीढ़िया, मुम्टी, पानी की टंकी अथवा कोई अन्य वस्तु तथा किसी भी प्रकार के संलग्नक उपस्कर पैरा 2 में उल्लेखित अनुमन्य अधिकतम ऊँचाई से ऊपर नहीं जानी चाहिए।

f. No radio/TV Antenna, lightening arresters, staircase, Mumty, Overhead water tank or any other object and attachments of fixtures of any kind shall project above the Permissible Top Elevation as indicated in para 2.



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

KOLK/EAST/B/120224/1390659

ज) विमानक्षेत्र संदर्भ बिंदु के 8 KM के भीतर तेल, बिजली या किसी अन्य ईंधन का उपयोग जो उड़ान संचालन के लिए धुएं का खतरा पैदा नहीं करता है, ही मान्य है।

g. Use of oil, electric or any other fuel which does not create smoke hazard for flight operation is obligatory, within 8 KM of the Aerodrome Reference Point

झ) यह प्रमाणपत्र इसके जारी होने की तारीख से 8 साल की अवधि के लिए वैध है, तथा उक्त प्रमाणपत्र जारी करने की तारीख से अधिकतम बारह साल की अवधि के लिए बढ़ाया जाएगा।

h. The certificate is valid for a period of 8 years from the date of its issue & shall be extended for a maximum period of twelve years from the date of its issue.

ट) भवन के निर्माण के दौरान या उसके बाद किसी भी समय स्थल पर ऐसी कोई भी लाइट या लाइटों का संयोजन नहीं लगाया जाएगा जिसकी तीव्रता, आकृति या रंग के कारण वैमानिक ग्राउंड लाइटों के साथ भ्रम उत्पन्न हो। विमान के सुरक्षित प्रचालन को प्रभावित करने वाली कोई भी गतिविधि मान्य नहीं होगी।

i. No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time, during or after the construction of the building. No activity shall be allowed which may affect the safe operations of flights.

ठ) आवेदक द्वारा विमानपत्तन पर या उसके आसपास विमान से उत्पन्न शोर, कंपन या विमान प्रचालन से हुई किसी भी क्षति के विरुद्ध कोई शिकायत/दावा नहीं किया जाएगा।

j. The applicant will not complain/claim compensation against aircraft noise, vibrations, damages etc. caused by aircraft operations at or in the vicinity of the airport.

ड) डे मार्किंग तथा सहायक विद्युत आपूर्ति सहित नाइट लाइटिंग (डीजीसीए भारत की वेबसाइट www.dgca.nic.in पर उपलब्ध) नागर विमानन आवश्यकताएं श्रृंखला 'बी' पार्ट I, सेक्शन-4 के चैप्टर 6 तथा अनुलम्बक 6 में विनिर्दिष्ट दिशानिर्देशों के अनुसार उपलब्ध कराई जाएगी।

k. Day markings & night lighting with secondary power supply shall be provided as per the guidelines specified in chapter 6 and appendix 6 of Civil Aviation Requirement Series 'B' Part I Section 4, available on DGCA India website: www.dgca.nic.in

ढ) भवन के नक्शे के अनुमोदन सहित अन्य सभी वैधानिक अनापत्ति, संबंधित प्राधिकरणों से लेना आवेदक की जिम्मेदारी होगी, क्योंकि इस ऊँचाई हेतु अनापत्ति प्रमाणपत्र लेने का उद्देश्य सुरक्षित एवं नियमित विमान प्रचालन सुनिश्चित करना है तथा इसे भूमि के स्वामित्व आदि सहित किसी अन्य उद्देश्य/ दावे के लिए दस्तावेज के रूप में प्रयोग नहीं किया जा सकता।

l. The applicant is responsible to obtain all other statutory clearances from the concerned authorities including the approval of building plans. This NOC for height clearances is only to ensure safe and regular aircraft operations and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc.

ण) इस अनापत्ति प्रमाणपत्र आईडी का मूल्यांकन Behala, Kolkata विमानक्षेत्रों के संबंध में किया गया है। यह अनापत्ति प्रमाणपत्र भारतीय विमान पत्तन प्राधिकरण के विमानक्षेत्रों और अन्य लाइसेंस प्राप्त सिविल विमानक्षेत्रों, जो जी. एस. आर. 751 (ई) जी. एस. आर. 770 (ई) द्वारा संशोधित के अनुसूची - III, अनुसूची - IV (भाग - I), अनुसूची - IV (भाग - 2; केवल RCS हवाई अड्डे) और अनुसूची - VII में सूचीबद्ध हैं, के लिए जारी किया गया है।

m. This NOC ID has been assessed with respect to the Behala, Kolkata Airports. NOC has been issued w.r.t. the AAI Aerodromes and other licensed Civil Aerodromes as listed in Schedule - III, Schedule - IV (Part-I), Schedule - IV (Part-2; RCS Airports Only) and Schedule-VII of GSR 751(E) amended by GSR 770(E)



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

KOLK/EAST/B/120224/1390659

त) यदि स्थल रक्षा विभाग के विमान क्षेत्र के अधिकार क्षेत्र में आता है, जैसा कि जीएसआर 751 (ई) की अनुसूची-V में सूचीबद्ध है, तो आवेदक को रक्षा विभाग से अलग से अनापत्ति प्रमाणपत्र लेना होता है। जीएसआर 751 (ई) जी. एस. आर. 770 (ई) द्वारा संशोधित के नियम 13 के अनुसार, आवेदकों को उन स्थलों के लिये, जो जीएसआर 751 (ई) जी. एस. आर. 770 (ई) द्वारा संशोधित के अनुसूची- IV (भाग -2; आरसीएस हवाई अड्डों के अलावा) के रूप में सूचीबद्ध बिना लाइसेंस वाले विमान क्षेत्र के अधिकार क्षेत्र में आता है, तो संबंधित राज्य सरकार से भी अनापत्ति प्रमाणपत्र लेने की आवश्यकता है।

n. Applicant needs to seek separate NOC from Defence, if the site lies within the jurisdiction of Defence Aerodromes as listed in Schedule – V of GSR 751 E amended by GSR770(E). As per rule 13 of GSR 751 E amended by GSR770(E), applicants also need to seek NOC from the concerned state government for sites which lies in the jurisdiction of unlicensed aerodromes as listed in Schedule-IV (Part-2; other than RCS airports) of GSR 751 E amended by GSR770(E)

थ) अनापत्ति प्रमाण पत्र (एनओसी) की किसी भी त्रुटि/व्याख्या की स्थिति में अंगरेजी अनुवाद ही मान्य होगा।

o. In case of any discrepancy/interpretation of NOC letter, English version shall be valid.

द) स्थल की ऊँचाई और/या संरचना की ऊँचाई के किसी भी विवाद में अनुमन्य अधिकतम ऊँचाई एएमएसएल में ही मान्य होगी।

p. In case of any dispute with respect to site elevation and/or AGL height, Permissible Top Elevation in AMSL shall prevail.

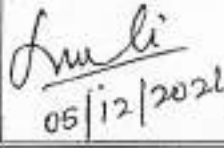
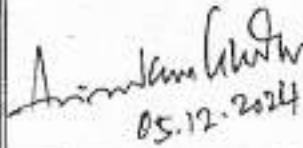


भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

KOLK/EAST/B/120224/1390659

क्षेत्र का नाम / Region Name:

पूर्व/EAST

पदनामित अधिकारी/Designated Officer नाम/ पदनाम/दिनांक सहित हस्ताक्षर Name/Designation/Sign with date	 05/12/2024	प्रणव सरकार/Pranab Sarkar महानिदेशक (एटीएम) पूर्व क्षेत्र / General Manager (ATM) ER भा.वि.प्र.पू.अ. / A.A.I., ER ने.सु.च.अ. हवाई अड्डा/N.S.C.B.I. Airport कोलकाता/Kolkata 700 052
द्वारा तैयार Prepared by	 05/12/2024	नसरुल्लाह भूटिया/NASRULLAH BHUTIA ज्य. महानिदेशक (एटीएम) पूर्व क्षेत्र / Jy.Gen.Mgr. (ATM) ER भा.वि.प्र.पू.अ. / A.A.I., ER ने.सु.च.अ. हवाई अड्डा/N.S.C.B.I. Airport कोलकाता/Kolkata - 700 052
द्वारा जांचा गया Verified by	 05.12.2024	अरिन्दम घोष/ARINDAM GHOSH ज्य. महानिदेशक (एटीएम) पूर्व क्षेत्र / Jy.Gen.Mgr. (ATM) ER भा.वि.प्र.पू.अ. / A.A.I., ER ने.सु.च.अ. हवाई अड्डा/N.S.C.B.I. Airport कोलकाता/Kolkata - 700 052

ईमेल आईडी / EMAIL ID : gmatmer@aai.aero

फोन/ Ph: 033-25111293

ANNEXURE/अनुलग्नक

Distance From Nearest Airport And Bearing/निकटतम विमानक्षेत्र से दूरी और बीयरिंग

Airport Name/ विमानक्षेत्र का नाम	Distance (Meters) from Nearest ARP/निकटतम विमानक्षेत्र संदर्भ बिंदु से दूरी (मीटर में)	Bearing(Degree) from Nearest ARP/निकटतम विमानक्षेत्र संदर्भ बिंदु से बीयरिंग (डिग्री)
Behala	21413.46	16.72
Kolkata	10128.57	293.67
NOCID	KOLK/EAST/B/120224/1390659	



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

KOLK/EAST/B/120224/1390659

Street View



December 2, 2024

Satellite View



December 2, 2024



Government of West Bengal
Office of the Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata – 16

Memo No.: FSR/211862406300004935

Date : 25-11-2024

From :
Director
Fire Prevention Wing,
West Bengal Fire & Emergency Services

To :
Merlin Projects Ltd. And Others.
PRE.NO-98K,G.T. ROAD,UNDER MUNICIPAL WARD-02,MOUZA-KOTRUNG,J.L-108,P.O-HINDMOTOR,P.S-
UTTARPARA,DIST-HOOGHLY,PIN-712233

Sub: Fire Safety Recommendation for proposed construction of G+12 storied Residential building with connected G+4 podium and Amenities Block with part Basement at premises no. 98K, G.T. Road, Ward No. 2, Mouza-Kotrung, P.O. Hindmotor, P.S. Uttarpara, Dist. Hooghly, PIN 712233..

Memo No.: FSR/211862406300004935

This is in reference to your AIN 211862406300004935 dated 22-Aug-2024 regarding Fire Safety Recommendation for proposed construction of G+12 storied Residential building with connected G+4 podium and Amenities Block with part Basement at premises no. 98K, G.T. Road, Ward No. 2, Mouza-Kotrung, P.O. Hindmotor, P.S. Uttarpara, Dist. Hooghly, PIN 712233.

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 :

A. Construction :

Whole Construction of the building shall be carried out as per approve plan of local building authority.

Materials for rapid flame spread categories including untreated wood fibre board etc. shall be not use.

The doors and windows preferably shall be made of metal.

The whole construction of the building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipal Body.

The interior finish decoration of the building shall be made with the materials with low flame spread and



low smoke and toxic gas generating categories conforming I.S. Specification.

Arrangement shall have made for sealing all the vertical service ducts by the materials of adequate Fire resisting capacity. Fire rating test certificate of all interior finish decoration should be submitted to this office before taking occupancy.

Service Ducts and shafts should be enclosed by walls of 2 hours and doors of one hour fire rating.

All such ducts shall be properly sealed and fire stopped at all floor level.

b. Open Space & Approach:

1. The open space surrounding the building shall be kept clear open to sky and shall confirm the relevant building rules as well as permit the easy accessibility and manoeuvrability of the Fire appliances with turning facility.
2. The approach road and roads surrounding the building shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
3. The width and height of the entry gates to the premises shall not be less than 5m and 6m respectively.
4. Driveway should be free of any type obstruction. No parking will be allowed on the Drive Way.

C.i) Staircase :

1. The staircase of the building shall be enclosed type, entire construction shall be made of brick / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.
2. The staircases shall have permanent vents at the top equal to 5% of the CROSS-SECTIONAL area of the staircase's enclosures and open able sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.
3. All the staircase of the building shall be negotiable to each other in each floor without entering into any room AND SHALL be extended up to respective terrace.
4. The roof of the wall shall be 1M above the surrounding roof area.
5. The width of the staircases and corridors and travel distance of different categories of occupancies shall have to conform the relevant building rules.
6. Fire and Smoke check doors at the entrances OF the Staircase enclosures at each floor level shall be provided AS PER SUITABLE.
7. The F.C.D. shall be at least two hour Fire resisting wire glass window fitted with self-closing type open able in the direction of escape.
8. Considering the staircases are only means of evacuation, emergency lighting arrangement directional, exit, sign etc. shall be made conforming the relevant I.S. Code in this regard.
9. Staircases shall be pressurized as shown in the approved plan drawing as per NBC Part-4, 2016 and relevant I.S. specification.

BASEMENT: Shall be adequately ventilated. FCD as shown in the basement staircase shall be provided.

D. LIFT:-

1. The walls of the lift enclosure of the building shall be at least two hours FIRE resisting type respectively marked in the plan with the event at top of area not less than 0.2m².
2. The lift of the building shall be designed at high speed "Fire lift" and conspicuously indicated marked in the plan.
3. One of the lift cars of the building shall be large enough to accommodate standard Ambulance stretcher and Medical Attendants.
4. The electric power shall be from separate supply mains in the building and cables run with the lift shafts, light and fans in the lift cars shall be operated from 24 volts, supply on emergency in case of failure of normal power supply lift shall automatically trip over alternate supply.
5. Exit doors of the lift lobby shall be through a self-closing smoke stop door of 1hour fire resistance.
6. The speed of the fire lifts in the building shall be such that it can reach the top from the ground floor within 1 minute in visual indications of floor numbers shall incorporated in the lift cars.
7. All other requirements shall confirm the I.S. specification including the communication facility in the lift cars connecting to the Fire Control Room of the building.



8. Lift car door shall have a fire resistance rating of half an hour.
9. The words fire lift shall be conspicuously displayed in fluorescent paint on the lift landing doors at each floor level.
10. As shown in the approved plan drawing positive pressure of 25-30 pa. Shall be maintained inside the lobby. Pressurization shall be maintained round the clock.

F. FIRE FIGHTING WATER:

1. Underground water reservoirs having total water capacity of not less than 2,00,000 ltrs. Exclusively for this fighting purpose shall be provided.
2. Overhead reservoirs of not less than 20,000 in each tower shown/ marked in the plan drawings exclusively for firefighting purpose shall be kept full at all time.
3. The water reservoirs manhole shall have overflow arrangement with the domestic water reservoirs as well as to avoid stagnancy of water.
4. Provision of necessary manhole shall be made on the top of these reservoirs as per specification.
5. Provision of replenishment at the rate of at least 2000 ltrs/min. from two separate sources of water supply shall be made.
6. The deep tube wells for the replenishment of the reservoir shall be incorporated with auto starting facility with actuation of auto detection and suppression arrangement of the premises and shall also be connected with dual power supply units.
7. Provision of placing Fire Appliances near the underground water reservoir to be made to draw water in case of emergency.

G. WATER LAYOUT SYSTEM:

Ring main Hydrant System:

150 mm dia Ring main water layout arrangement converting the entire premises of the project with provision of pillar type yard hydrants with door Hose boxes, containing 2 lengths of 63mm delivery hose and short branch pipe shall be provided at all strategic location and surrounding the buildings conforming I.S. 3844-1989 (up to date amendment).

The system shall be so designed that shall always be kept charged with water under pressure and capable to discharge min. 2850 ltrs./min. at the pressure 3.5kg/sq.cm. at any point.

Wet Riser & Hose Reels System:

The building shall be provided with separate Wet Riser for sprinkler & Hydrant Riser 150 mm internal diameter pipe line each with provision of landing valves at the staircase landings/ half landings at the rate of one such rises 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 ltrs/min. at the ground floor level outlet and minimum 900 ltrs/min. at the top most and furthest outlet. In both cases the running pressure shall not be less than 3.5 kgs/sq. cm.

Provision for Hose Reel units on swivelling drum in conjunction with Wet Riser shall be made near each landing valves. Hose Reel unit with provision of outlets in each floor at the staircase landing/half landing as per suitable at the rate of one such unit of Wet Riser and Hose Reel per 1000sq.m. of floor area.

Yard Hydrant/ Ring Main Hydrant with provision of adequate number of Pillar type hydrant shall be installed surrounding the buildings in accordance with relevant I.S. specifications.

Provision of suitable Fire Service inlet shall be made as per relevant I.S. specification.

All other requirements of the water base Fire Protection System shall be made as per I.S. Specification 3844-1989 (with up to date amendment).

Automatic Sprinkler Installation:

The automatic Sprinkler installation shall be provided in all floor areas and entire basement area as per provision of NBC part- IV, 2016 and relevant I.S. 9972. Alarm gong to be incorporated along with the sprinkler system.

H. FIRE PUMP:

1. Provision of Fire Pump of 2850 LPM 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 respective pump room.

2. One such pump of same capacity shall always be kept on stand-by of diesel driven type.
3. Provision of separate pump 2850 LPM for sprinkler system to be made to keep the water base system under pressurized condition at all the time and shall be installed.
4. Provision of separate Jockey Pump for Hydrant and Sprinkler system of 180 LPM shall also have to be made to keep the water-based suppression systems i.e. hydrant and sprinkler system separately under pressurized condition at all the time.
5. All the pumps shall be incorporated with both manual and auto starting facilities.
6. 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 with overhead tank
7. The fire pumps shall be multi stage and multi outlet creating pressure zones.

I. a) ELECTRICAL DISTRIBUTION SYSTEM:

1. Electrical distribution system of all the building shall be made in the form of _____ concealed wiring or in heavy gauge M.S. conducted continuously bonded to _____ earth cables shall be I.S. marked and preferably be F.R.L.S. categories.

2. Electrical distribution system shall conform all the requirement laid down in _____ I.S. 1946-1982.

For every 230V wiring above false ceiling 660 grade insulated cable shall be used. Transformer switch gear H.T., L.T. and other electrical rooms shall be at the ground floor level and other electric rooms shall be at least 4 hrs. Fire resisting capacity, adequate ventilation arrangement shall have to be made in all the rooms. Dry and explosion proof type shall preferably be installed.

All electrical installation viz. Transformers, Switch Gears, L.T., H.T. rooms shall be protected with both auto detection and suppression system as per suitability.

b) Alternative Power Supply:

Arrangement shall be made to supply power with the help of a generator to operate at least the Fire pump, Pump for the deep tube well, Fire Alarm system, etc. and also for illuminating the staircase, corridors etc. and other place of assembly of the building in case of normal power failure.

J. Public Address System:-

Public address system shall have to be provided and linked between all floors and _____ control room with talk back facility.

K. Detection and alarm system:

1. Auto Fire Alarm System with analogue addressable smoke/ Heat detector as per suitability shall be installed in each floor of all buildings.
2. Addressable analogue manual call boxes incorporating with sounders shall be installed in all floors area of the building in such a manner that maximum travel distance shall not be more than 22.5 mtrs in order to reach any of the call point.
3. Micro Processor based fire alarm panel shall be installed and all shall also be connected with main panel at the Fire Control Room of the premises having direct facility to the local fire service unit.
4. Public address system shall be made available in all floors of the building. The system shall be connected to the Main Control Room.
5. All the installation shall also be satisfying the I. S. specifications 2189(a amended) and the code of practice as laid down in the N. B C. Part-IV.

L. AIR CONDITIONING SYSTEM(If any):

1. The A.H.U. shall be separated for each floor with the System Air Duct for individual _____ floors and in no way interconnected with the ducting of any other 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. Escape route like staircase, common corridors, lift lobby etc. shall not be used as return air passage.
6. Whenever the ducts pass through Fire wall of floors, the opening rounding the ducts shall be sealed with fire resisting materials such as asbestos rope vermiculite concrete etc.
7. The metallic ducts shall be used even for the return air instead of space above the false ceiling.
8. The materials used for insulating the ducts system (inside or outside) shall be of non-combustible materials, glass wool shall not be wrapped or secured by any materials of combustible nature.
9. Area more than 750 sq. Mtr on individual floors shall be segregated by a Fire wall and automatic fire damper for isolation shall be provided.
10. If the air handling unit serve more than one floor, the recommendation shall give above shall be comply with in addition to the condition given below:

Proper arrangement by way of automatic fire dampers working on fuse able link for isolating all ducting at every floor from the main riser shall be made.

When the automatic fire alarm operates, the respective air handling unit of the air conditioning system shall automatically be switched off.

11. The vertical shaft for treated fresh air shall be of masonry construction.
12. Inspection panel shall be provided in the main trucking to facilitate the cleaning of ducts of the accumulated dust and to obtain access for maintenance of fire dampers.
13. No combustible materials shall be fixed nearer than 150 mm of any duct unless such duct is properly enclosed and protected with non-combustible materials (glass wool or spun glass with neoprene facing, enclosed and wrapped with aluminum sheeting) at least 3.2 mm thick would not readily conduct heat.
14. The ducting shall be constructed of substantial gauge metal in accordance with good practice.

O. FIRE DAMPERS(if any):

1. These shall be located in conditioned air ducts and return air ducts/ passages at the following points:
 - a) At the fire separation wall,
 - b) Where ducts pass through floors and,
 - c) At the inlet of supply air duct and return air duct of each compartment on every floor.
2. The dampers shall operate automatically and shall simultaneously switch of the air handling fans. Manual operation facilities shall also be provided.

NOTE: - For blowers where extraction system and duct accumulators are used, dampers shall be provided.

3. Fire/smoke dampers for building more than 24 meter in height:

For apartment house - In non-ventilated lobbies/corridors operated by fusible link/smoke detector with manual control.

For other building - On operation of smoke detection system and with manual control.

4. Automatic Fire dampers shall be so arranged as to close by gravity in the direction of air movement and to remain tightly closed on operation of a fusible link/smoke detector.



P. 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:

Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles.

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

Disposable Type B.A Musk to be kept always for emergency fire situation.

Floor numbers and directional sign, showing the nearest exit, refuge area, and fire points etc. shall have photo luminescent signals at each floor of the building shall be made available conforming I.S. specification.

The employees and security staff shall be conversant with installed Fire Fighting equipment 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 equipment installed in the building to keep them in perfectly good working conditions at all times.

A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the building.

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

Fire License shall have to be obtained from this Department after compliance of the above Safety Recommendations before commissioning of the Gas Bank.

The 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 safety recommendations, the Director General, West Bengal Fire & 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 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.



Memo No.: FSR/211862406300004935



Signature Not Verified

Digitally Signed.
Name: ABHIJIT PANDEY
Date: 25-Nov-2024 13:31:05
Reason: D-Sign
Location: E-Dist 2.0

Director

West Bengal Fire & Emergency Services