

**Government of Andhra Pradesh**  
**A.P. State Disaster Response and Fire Services Department**

**Provisional Fire No Objection Certificate**

File No: -----/MSB/2024

Date: 17/09/2024

Sir/Madam,

Sub: Andhra Pradesh State Disaster Response and Fire Services Department - Issue of Provisional No Objection Certificate to proposed construction of Hospital building of ( \_\_\_\_\_ ), \_\_\_\_\_ - Regarding.

Ref: 1. Online Application Dt. 27-08-2024

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You are hereby issued Provisional NOC for Hospital building subject to the following reasonable fire prevention and Safety methods.

**1.Ensure any of the two exits for every building:**

- a. One Staircase and a ramp widely separated from each other.
- b. Two Staircases widely separated from each other.
- c. One Staircase and fenced pathway to adjacent buildings on all floors suitable for Evacuation of patients.
- d. One Staircase and a tube lift (transparent fire proof lift fitted outside the building) with an Exhaust fan on to (to remove smoke from the lift if any) powered by main generator.

This is to ensure more than one exit pathway nurses, staff and doctors to evacuate patients in case of any fire incident towards safe place. We have lost many lives in accidents due to lack of alternative exit the only exit was engulfed in smoke and fire.

**2.Electrical Safety:**

- a. Installation of Miniature Circuit Breakers (MCBs) and to protect high power intensive equipment such as MRI, CATH labs etc.,
- b. Electrical wiring to be changed for every ten years, wherever high power consuming appliances such as Air conditioners, MRI machines, ICUs, Scanners, X-ray units etc.,  
This is most important for renewal applications. In fact, Seven Hills Hospitals (Visakhapatnam), Swarna Palace (Vijayawada), Indus Hospital ( Visakhapatnam) fires are due to electrical wiring being more than 10 years old and not designed to support Air Conditioners , ICUs, Operation theaters, MRIs etc.,
- c. No Overloading or every bed to have a power socket in Intensive Care Units..
- d. LED lights in Closed Rooms, Corridors, Staircases connected to inverter (Battery) to ensure well light pathways for Exit or Evacuation inspite of regular power failure in any Emergency.
- e. Grounding/Earthing Shall be done. For details refer IS 3043:1987.
- f. All Electrical wirings in the building shall confirm to the code of practise for Electrical wiring IS:732:1989 and also shall confirm for Fire Safety Wiring of the building Electrical Installations as per IS:1646:2015. Most common mistake is that the neutral wires to the three pin plugs are not of sufficient thickness to carry the current in case of any short circuits

- g. For above 500 bed capacity buildings, it is required to install non pressurized Aerosol suppression system (or) CO2 flooding system in Electrical Panel Rooms.
- h. Lightening conductors may be provided for high rise buildings exceeding 5 floors.
- i. All the above safety measures shall be Certified by any Electrical Engineer, in the employment of State Government.

The above is to prevent the electrical short circuits which are the root-cause in 90% of the hospital fire accidents across the country.

### **3.Oxygen Cylinder Safety:**

- a. Appliances containing an open flame (heaters, fireplaces etc) must not be used in any room containing Medical Oxygen.
- b. Never permit any form of lubricant (oil, grease, baby oil, lubricating gel etc.) to come into contact with oxygen fittings or hoses.
- c. Ensure that compressed Medical Oxygen (Gas) cylinders are not placed near any heat sources.
- d. Smoking shall not be permitted in any room containing Medical Oxygen.
- e. The above to be certified by any Civil Engineer in State Government Service.

The above is to prevent Oxygen cylinder explosion fires.

### **4.Water availability @ all floors:**

- a. Minimum pressure of water to put out the fires to be 3.5 Kg/cm<sup>2</sup>. The more the better.
- b. This is to put out initial fires till the fire engine arrives.
- c. The pressure of water can be obtained through any ISI marked pumps which are reliable, easy to maintain and affordable.
- d. These pumps should be easily handled by nursing staff, doctors and patients without any special training.
- e. These pumps should be flexible to draw water from normal taps or sump or drain or any water source available in the building.
- f. Water in sump or overhead tank that can be used for initial firefighting purpose should be reasonable to last for half an hour.
- g. You are not obligated to buy from any particular vendor or hire any particular contractor or be guided by any liaison officer or middleman to install fire safety equipment.
- h. Please Don't use water Sprinklers in radiation rooms, X-rooms, MRI, PET Scan etc., electrical or server or Computer rooms.
- i. Use Co<sub>2</sub> Cylinders or Dry Chemical powder fire extinguishers @ every floor with one per 15 meters and in every lab.

Usually the Response time of fire engine arrival is about 20 minutes. The above arrangements give tools to put out the initial fires to the people (Nurse, Staff, doctors) who happen to be present in hospital at the time of any fire incident before the fire engine arrives. So, any equipment installed should be easy to use by everyone. If the nurses, staff or doctors can't handle, don't install any equipment. Such as hose pipes, wet risers and down comers.

### **5.Smoke Test:**

In case of fully Airconditioned buildings, in most fire accidents, it is smoke that suffocate and kills. Fully air conditioned buildings are generally sealed and there is no vent for smoke to escape. Therefore, we are mandating smoke management which is ensured through "Smoke Test".( This is not applicable in case of partial air conditional buildings where smoke can easily disperse into air unlike in fully covered buildings).

- a. "Smoke Test" tests to ensure the staircases free from smoke for about 2 hours to enable all nursing staff, doctors and patients to evacuate from the building in case of any fire accident.
- b. Make sure air conditioner ducts don't compound the problem by carrying smoke to all parts of the building.
- c. Fire proof materials such as iron doors, iron shutters, thick glass, curtains that can shield smoke can be used.
- d. Also exhaust fans that are connected to standby power source can be installed to evacuate smoke from staircases or exit paths.

**6. Where hospitals are not permitted:**

- a. In thatched roof or any inflammable material roof (Plastic sheets etc.,) buildings.
  - b. In cellar or basement of buildings.
  - c. In mixed occupancies where the ground floor is occupied with any shops particularly cloth, chemicals or any toxic inflammable materials.
7. There will be no retrospective application of change of rules. Hence, once you follow above methods, they will be valid till the end of life of building just like building plan approval. Any renewal is for the purpose of checking the working condition of the already installed equipment and electrical safety.
8. If you experience any undue hardship or practical difficulty in implementing any of the above suggested requirements, please don't hesitate to meet in person without appointment (9441236448) as ensuring fire safety with better and affordable technology is a continuous learning and collaborative endeavour.

Your sincerely,

Director General  
State Disaster Response & Fire Services  
Andhra Pradesh, Vijayawada

To  
The Management of \_\_\_\_\_, \_\_\_\_\_

Copy to the District Medical & Health Officer, Concerned.