

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

Provisional Fire No Objection Certificate

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

Date:DD/MM/YYYY

Sir/Madam,

Sub: Andhra Pradesh State Disaster Response and Fire Services Department - Issue of Provisional NoObjection Certificate to the proposed construction of building of -----
----- -Regarding.

Ref: Online Application Dt: DD/MM/YYYY.

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

1) The building:

The building is a Star Hotel with Ground + 09 Upper floors (Mixed Occupancy).

2) Root causes of Fire:

- (a) Electrical Short Circuit.
- (b) Kitchen with Gas Cylinders.

3) Therefore, the following prevention precautionary measures are recommended.

i) Ensure Electrical Safety:

- a) Install MCBs (Miniature Circuit Breakers)
- b) Proper grounding and lightening protection.
- c) Use of FRLS cables.
- d) Install Co₂/clean agent flooding system in all electrical panels.

ii) Ensure Kitchen Safety:

- a) Piped LPG.
- b) Flameless cooking or electrical cooking.
- c) Kitchen shall be separated from other areas with minimum one hour fire rated wall.
- d) Smoke Exhausts shall be provided.
- e) Periodic checking of LPG pipes and stovesby authorized Mechanic.

iii) Ensure Exits:

Minimum two Staircases widely separated from each other for all floors. They should be pressurized and automatically closed type to provide “Smoke free” passage to all occupants of the building in case of any accident.

iv) Smoke Management:

In most of the fire accidents, it is smoke that suffocate and kills. The Five Star Hotel buildings are air conditioned. Therefore, we are mandating smoke management which is ensured through “Smoke Test”.

- a) “Smoke Test” tests to ensure the staircases free from smoke for about 2 hours to enable all occupants and staff to evacuate from the building in case of any fire accident.

..2..

- b) **“Breathing Balcony”** be provided @ every room to breathe fresh air in case of any fire accident. The **“Breathing Balcony”** should be of sufficient width to accommodate the occupants of the room.
- c) Make sure air conditioner ducts don't compound the problem by carrying smoke to all parts of the building.
- d) **Smoke Extraction System:**
Smoke Extraction Systems to be installed in all floors so that any smoke generated is replaced with fresh air at least 8 times per minute in case of fire, as opposed to normal air exchange rate of 2 to 4 times per minute. The Air conditioners should not be inter connected to prevent smoke spreading from floor to floor.
- e) In case of fire, smoke should not enter the staircases but there should be an Alarm in all floors and announcements to the occupants **“not to panic.... and evacuate safely through staircases”....** giving priority to old and disabled people.
- f) **Lifts, Lift Lobby, Staircase Lobby:**
 - (i) Pressurized to ensure smoke-free operation during fire emergencies, facilitating safe evacuation.
 - (ii) All staircases, lobbies, fire pathway or escape routes should be lit with LED lights with 120 minutes UPS backup with clearly visible signages.
 - (iii) In case of glass façade, 10 % of glass should be easily openable and should be visibly marked.
- g) **Intelligent Building Management System:**
Intelligent Building Management System to be installed to oversee the operation and management of all firefighting equipment, CCTV, Access Control, Public Alarm System and Security Cameras.

4) **Firefighting Tools:**

These tools to be useful to the occupants of the building during **“Golden Hour”** to put off initial fires without any training, before the fire engines arrives.

The following be made available at easily accessible, visible, marked locations at all floors.

a) **Aerosol Extinguishers:**

- Aerosol is highly effective in suppressing the fire in any closed room.
- Aerosol fire suppression systems contain a solid chemical compound extinguishing agent, which disrupts the fire's chemical chain reaction by removing the oxidants from the burning process. It may be used without any training and is maintenance free.
- Pressure less Aerosol fire extinguishers are to be provided in each floor in a clearly marked, visible and accessible location.
- Based on floor volume, the Aerosol extinguishers quantity should be derived.

b) **Co₂ Extinguishers:**

- 4.5 Kg Co₂ Fire Extinguishers are to be provided for every 100 Sqm in every floor in clearly marked, visible and accessible location.

c) Water Availability:

- 5 HP Plunger pumps with wheels are to be provided in each floor, connected to gravity water pipeline properly put in a visible, marked and in an accessible box. These pumps to be energized by normal electrical power and emergency power backup.
- 5 HP plunger pumps with wheels are to be provided in parking floor.
- No dedicated fire tank is required. Domestic Overhead tank can be used for both Fire Fighting & domestic usage purpose by letting fire pipe outlet @ bottom and normal water use pipeline @ middle to ensure minimum water availability for firefighting.

(OR)

- The conventional Water Sprinklers, Pressure Pipes, Pump House and Hose Reels may be provided at your option.

5) Parking vehicles:

- a) Keep DCP 50 Kg Trolley @ one per parking floor to handle any fires in the parking floor as the sale of EV Vehicles are getting increased in the market and water is not the right medium to put off EV vehicle fires.
- b) Utility corridor with CPVC water pipeline having tapping points be run along the periphery of the building and in parking floor so as to meet any emergency and to refill fire engines with 8 HP mobile pumps.
- c) Ventilation system for smoke exhaust to be provided as per the standards.
- d) Smoke extraction and mechanical ventilation to be provided.
- e) Compartmentation of parking is at the rate of 3000 Sq. mtrs.
- f) Automatic Modular DCP to be provided for each car park located under the building.

6) Other Preventive measures:

- a) Regular Mock Drills, SOPS to maintain all equipments in working condition.
- b) Use fire retardant paint to spray all carpets, furniture to avoid spread of fire during fire accident.

7) How the above fire safety design is helpful in case of Fire accident?

In case of any fire accident, there will be public announcement saying “**not to panic.... and evacuate safely through staircases**”.... giving priority to old, ladies and disabled people.

- a. Occupants can go to the “**Breathing Balcony**” adjacent to the room to breathe fresh air. The Balcony is protected by fire rated doors.
- b. The compliance to “**Smoke Test**” would ensure that smoke doesn’t enter the rooms, staircases and lifts.
- c. Building Ventilation systems will exchange the air at the rate of 8 to 12 times/min upon detection of smoke/heat.
- d. In case of fire, the Aerosol Extinguisher will extinguish the fire. And those available in the floor may also be utilized to put off the fire by simply throwing them into the room where fire broke out. So, throwing multiple Aerosol extinguishers would effectively put off the fire.

- e. The pressure water can be used to put off initial fire during “**Golden Hour**” using ISI certified 5 HP pumps which are reliable, easy to maintain and affordable. These pumps can be easily handled by any staff/workers without any special training.
- f. If you have optionally installed, conventional Water Sprinklers, they automatically sprinkle water if any fire or heat reaches 68° C in that room.
- g. The origin of fire in Hotel buildings is mostly due to electrical short circuits and the preventive measure such as MCBs on each floor, Fire resistant cables will prevent such fires from happening in the first place. The fire retardant paint in rooms will stop any fire from spreading. The initial fires can also be put off by available Co₂ extinguishers.

Therefore, this building meets the “**reasonable fire safety criteria**” and hence the provisional NOC is issued.

- 8) We request you to kindly not waste food but handover it to any NGO who is involved in collection and distribution of such leftover food to the needy as a CSR activity.
- 9) As a Policy, no retrospective application of rules shall be made for building having any NOC as long as they comply with that NOC requirements till the life of the building.
- 10) 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 endeavor.

Yours Sincerely,

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

To

The Management of -----.

Copy to the Commissioner, Tirupati Municipal Corporation, Tirupati District.