

**Pratap Madireddy, IPS**

**Director General**

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Dear Sir,

**D.O.Lr.No.20/DGFS/AP/2024, Dated: 20-12-2024.**

You may be aware of the recent tragic hospital fire that occurred on November-15, 2024 at Jhansi Hospital, Uttar Pradesh wherein 15 new born babies died due to **“Smoke”** resulting from the **“Electrical Short Circuit”** in hospital Intensive Care Unit (ICU) [www.youtube.com/watch?v=ia0y3MHKSSM](http://www.youtube.com/watch?v=ia0y3MHKSSM)

On December-13, 2024 a serious hospital fire accident occurred at Dindigul, Tamilnadu wherein 6 people died due to suffocation with **“Smoke”** while being trapped in hospital lift as the power was switched off due to **“Electrical Short Circuit”** [www.youtube.com/watch?v=RIAbASD6f7k](http://www.youtube.com/watch?v=RIAbASD6f7k)

These incidents underline the critical need for improving **“Electrical Safety”** and **“Smoke Management”** in hospitals to avert casualties. Major News Papers such as Eenadu, The Hindu, The Times of India and The New Indian Express urged to take hospital safety in right earnest in their editorials reflecting public opinion.

The basic idea is to take measures to prevent the origin of fire, generation of smoke. This will be accomplished by ensuring **“Electrical Safety”**. Even if accident happens, we need to ensure **“Smoke Management”** so that patients can be safely evacuated through fully-lit smoke-free exits while providing them with immediate access to **“fresh air”**.

**(a) Electrical Safety:**

To prevent Electrical Short Circuits, we have prescribed the following safety measures:

- a) MCBs (Miniature Circuit Breakers)
- b) FRLS (Flame Retardant Low Smoke) cables.
- c) Automatic CO<sub>2</sub>/Clean Agent/Aerosol flooding system in all electrical panels.
- d) Grounding and lightning protection.

Our inspections reveal that MCBs are mostly installed, but the compliance to (b) & (c) is particularly poor. These shortfalls need to be rectified immediately to avert fire accidents in hospitals.

Therefore, I request you to bestow personal attention to change the wiring in Power Intensive areas (such as ICU's, Operation theatres, MRI/Cath Labs/X-ray and A/c wards) to FRLS cables. This will prevent generation of smoke even in case of electrical short circuit or any other fire incident. In addition, get installed Automatic flooding system in all electrical panels so that any spark in the panel will automatically get extinguished without causing any further damage.

*Pratap*  
20/12/2024

**(b) Smoke Management:**

I request you to kindly get installed automatic **Smoke Extraction System** in all A/c rooms (particularly Intensive Care Units (ICUs), Operation Theatres (OT) and in A/c wards etc.,)

The Smoke Management is nothing but an exhaust fan that will rotate with a speed on detection of any smoke so that the smoke in the room is expelled and fresh air is filled which gives enough time to evacuate patients safely without casualties. Normally, the fresh air exchange is 1 to 2 times per minute but on detection of smoke (in case of fire accident) the air exchange will be higher upto 6 to 8 times per minute so that fresh air is available to breathe and survive during evacuation.

**Lifts, Lift Lobby, Staircase Lobby:**

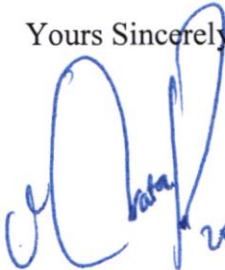
- a) Pressurized to ensure smoke-free operation during fire emergencies, facilitating safe evacuation.
- b) The lifts are to be provided with smoke extraction fans with emergency power backup and also to be incorporated the feature of able to return to the ground floor automatically during a power failure. (In fact, in Dindigul Hospital, Tamilnadu incident **six people died** being trapped in lift due to **suffocation caused by smoke**)
- c) All staircases, lobbies, fire pathway or escape routes should be lit with LED lights with 120 minutes UPS backup with clearly visible signages.
- d) In case of glass façade, 10 % of glass should be kept open so that fresh is available.
- e) Install exhaust fans (with Power Back Up) on either side of the corridors to infuse fresh air and to expel smoke so that these corridors act as **“Breathing Balcony”** that gives access to fresh air immediately to patients.

The above fire safety measures can be fitted to existing hospital facilities without major alterations.

Therefore, I request you to kindly ensure compliance with the above fire safety measures for your hospital so as to pass Hospital Fire Audit due to be conducted in (04) months time in the larger **“Public Interest”**.

With Warm Regards

Yours Sincerely,

  
20/12/2024

**(MADIREDDY PRATAP, IPS.,)**