



**Preventive safety measures to  
be undertaken during summer**

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**LABS**  
Life And Building Safety



# Introduction



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In light of the increased number of fire incident occurrences due to the unprecedented high temperatures this summer, we wish to highlight the need for factories to prioritize electrical and fire safety at their premises.

The **combination of high temperatures and increased electrical usage, and dry conditions can create a hazardous environment that significantly elevates the risk of fires.**

By implementing preventive measures and promoting fire safety awareness, factories can protect their employees, assets, and operations from the catastrophic fire incidents.



Note: This document is not an absolute safety implementation reference but a suggestive guideline to emphasize on good practices that factories can follow. For overall comprehensive safety implementation in the premises, suggest to always follow National/International safety norms and regulations.

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- Begin by **identifying potential fire hazards** within your premises. These hazards can include faulty electrical equipment, flammable materials, or inadequate fire safety measures.
- Store flammable substances safely – **Segregate and compartmentalize**
- Ensure **escape routes are clear** and accessible.
- Ensure **exhaust is clear** for smoke diffusion

Identify Fire Hazards



- Consider who might be at risk in case of a fire and **plan appropriate evacuation measures**. This includes employees, visitors, and anyone else present on the premises.
- Workplace environments with **high heat production, such as manufacturing, need well-ventilated areas** and places to cool down.
- Make sure that all **employees know the signs and symptoms of heat stroke**, and that there is someone trained in first aid on every shift.

Identify People at Risk



- Train employees on **fire safety protocols, evacuation procedures, and the proper use of fire-fighting equipment** – Re-train if necessary.
- Consider the **needs of vulnerable individuals, such as the pregnant women** and differently abled individuals.

Provide Training

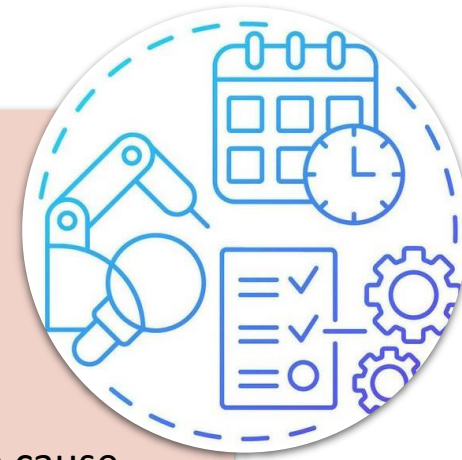


- **Fire risk assessments should be reviewed periodically**, especially when there are changes in the workplace or its operations
- Ensure that **fire detection and warning systems are functional**, emergency routes are clear, and fire-fighting equipment is maintained.
- Ensure **water availability for fire-fighting is maintained** at optimum levels

Regularly Review and Update



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- Repair or replace **faulty electrical equipment**.
- **House-keeping measures** to ensure fire hazards are eliminated
- **Test and maintain earth pits** – There is a high chance of earth pits drying up which will in turn cause high resistance
- Ensure/recheck **adequate and timely maintenance of high Hazardous equipment i.e. Boiler, generator, compressor, dryer machine etc.**
- **Load monitoring**: especially the HVAC load - comprising of ACs and air washers/ air handling units; these are running continuously. Load monitoring w.r.t cable size and protection (MCB/ Fuses/ Breakers)
- **UPS battery temperature** to be monitored
- **Panel temperature monitoring** - cooling for the panels- effective or not
- Use of **temporary wires for equipment** - especially cable joints made using insulation tapes and also stretched cables (extension box or hanging loads)
- Testing of **Transformer Oil BDV and calibration of Winding temp** and Oil temp indicators (for checking the temperature rise)
- Condition of **remote tripping devices & limit switches** to be checked
- **Ventilation provision in panels** and in panel rooms to be ensured
- No **dry leaves/ grass in transformer** and HT yard

# Preventive safety measures to be undertaken during summer



## Maintenance of Air Conditioners

- The intense heat has an **adverse effect on the air conditioning (AC) systems**, there have been many incidents of **fire in compressors because of overheating and overloading**.
- In the central business districts and city core areas, typically the congestion results in higher temperatures “This is because virtually high uses of ACs. Not only does this have an impact on the power load, but the compressors of these machines also sometimes burn because of the atmospheric heat, resulting in fires.
- AC units **exposed to sunlight heat up both internally and externally**. Internally because the **efficiency of the machine reduces due to higher temperatures**, causing the parts inside to go on an overdrive and heating up, and **externally because the casing material** receives direct heat for prolonged periods of the day. A combination of these may lead to the components of the AC machines to catch fire.
- In the split AC, the cooling unit is normally kept outside. This makes them all the more vulnerable to blasts. **Creating a shade for these units is, thus, absolutely necessary**.
- <https://pib.gov.in/PressReleaselframePage.aspx?PRID=2016232> : Link is the **Joint Advisory from MOHFW & NDMA to states** on measures to prevent fire in hospital fire during summer months however same can be ensured by the factories



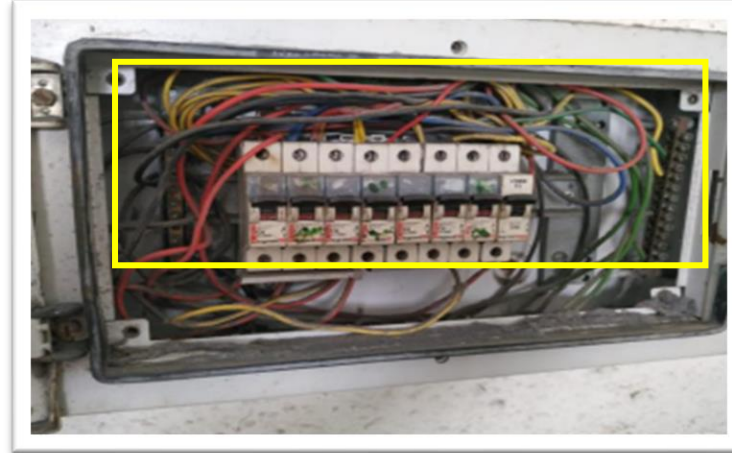
# Visual examples – Faulty Electrical equipment



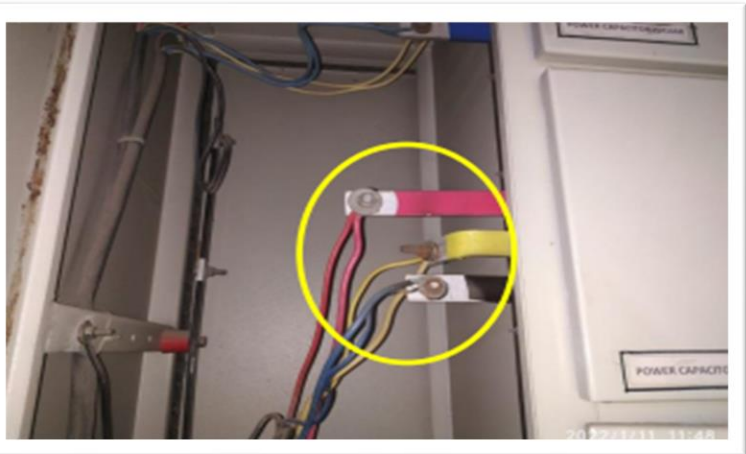
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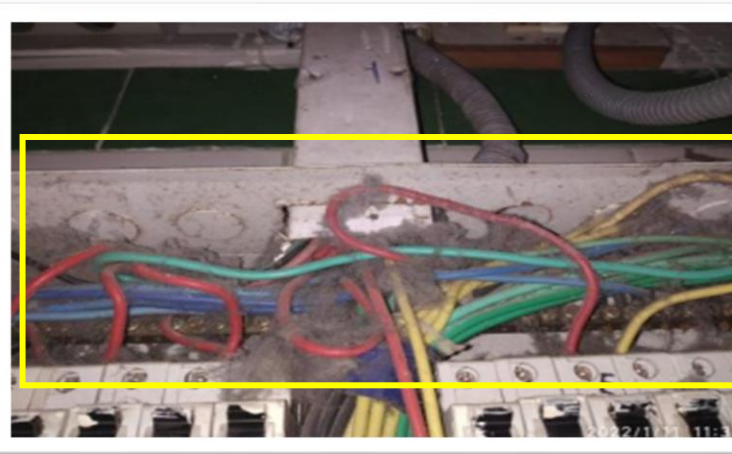
Overloading in electrical equipment



Non standard cable dressing



Loose electrical connections



Lint and dust inside electrical panel

# Visual examples – Unsafe storage practice



Material stored incorrectly and near Electrical source



Material stored near Electrical source

# Visual examples – Evacuation and escape route



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Electrical fixture in escape route



Hazardous installation in escape route



Blockage in escape route



# Visual examples – Fire rated separation unavailable



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High risk installation without segregation



Boiler installation near washing area

# Visual examples – Good practices



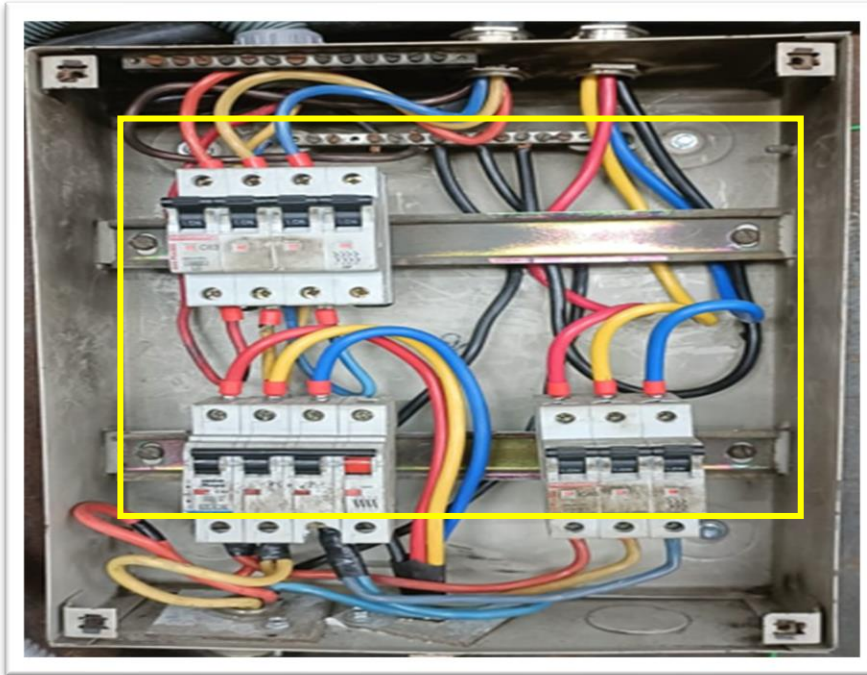
Monitoring of electrical panel temperature



Clear escape route



## Visual examples – Good practices



Electrical panel with proper electrical fitting



Segregation of high risk installation