NIRAPON

SAFETY BULLETIN

Optimizing Electrical Load for Safety and Efficiency

Electricity demand spikes significantly during the hot summer months in Bangladesh. These strategies will help your factory partners effectively manage electrical load and implement robust safety protocols that prioritize operational efficiency and workplace safety when temperatures rise.

Managing Electrical Load and Ventilation

Increased use of fans and air conditioning during peak summer heat can make it challenging for factories to manage electrical loads. Without an effective Safety Management Plan, many factories risk overloading their electrical systems and subjecting workers to excessive, life-threatening heat.

Overloading your electrical system poses a fire hazard.

Simply adding more fans to your factory floor without the electrical capacity to support them increases your risk of fire.

Turning off fans to prevent overloads compromises worker comfort, health, and safety.

When workers are subjected to excessive heat without adequate ventilation, they may suffer from heat stress, dehydration, and decreased cognitive function, impacting productivity and safety.

Tips to Help You Manage Electrical Load and Ventilation

Establish and implement best practices.

- ☐ Follow manufacturer recommendations for running machines.
- ☐ Use “smart” load management systems that automatically adjust power distribution based on real-time usage and priority.
- ☐ Schedule regular preventive maintenance and inspections for electrical and ventilation systems to ensure they are in optimal condition and comply with safety standards.
- ☐ Develop contingency plans to manage electricity disruptions during hot weather events or emergencies, including backup power generation.

Seek professional support.

- ☐ Commission a professional risk assessment to identify and mitigate risks associated with your current electrical and ventilation systems.
- ☐ Engage with an electrical engineering expert to evaluate and identify improvements to your current systems.
- ☐ Work with an HVAC engineering expert to plan an effective ventilation system that will meet the specific needs of your factory.
- ☐ Work with the Nirapon Safety Analyst Team to solicit recommendations for improving electrical load management through your 90-day reporting and during safety support visits.

Implement expert-recommended upgrades, for example:

- ☐ Enhance electrical panels and circuit systems to withstand higher loads, especially in critical areas where ventilation systems are heavily used.
- ☐ Install industrial exhaust fans that are capable of handling larger volumes of air efficiently.

Engaging Your Workforce in Safety and Efficiency

Your workforce needs to be informed of and engaged in the policies and procedures* that are meant to keep them safe – especially during times of peak electrical load.

Tips to help you safely manage electrical load and ventilation

- ☐ Review policies and procedures regularly and update with new best practices and suggestions for improvement from the workforce.
- ☐ Hold regular training sessions to ensure all workers are aware of and can access policies and procedures relevant to them.
- ☐ Schedule specific trainings in electrical safety and electrical-system maintenance for relevant workers.
- ☐ Learn from past incidents by engaging your workforce, via the safety committee, to understand what went wrong, prevent reoccurrence, and identify opportunities for electrical-system improvements.

Managing electrical load and ventilation is about continuous improvement. By enhancing our electrical systems and training our workforces to prioritize their safety, we can create safe, productive work environments in our factories year round.

There are comprehensive guidelines in the 90-Day workbook and resources on the Nirapon website Learning Center to support you in this important work.

*Policies (strategic and operational directions) and procedures (detailed working practices) are risk-control measures designed to prevent accidents and promote a safe working environment. They should reflect national and international safety standards.