Preventative Electrical Maintenance Checklist

For Industrial & Uptime-Sensitive Facilities

Use this checklist to spot electrical warnings, document recurring issues, and plan service before small problems become downtime, equipment damage, or emergency calls.

How to use this checklist

Use this as a visual and planning tool for facility, maintenance, and operations teams. It is not a DIY electrical repair guide.

Mark each item as:

Status	Meaning
OK	No visible concern
Watch	Monitor or document for follow-up
Action Needed	Needs service, testing, repair, or contractor review
N/A	Not applicable to this facility

Suggested review frequency:

Frequency	Use for
Weekly / Monthly	Visual checks by facility or maintenance staff
Quarterly / Semi-Annually	Review patterns, recurring issues, logs, and repair needs
Annually	Contractor-led preventative maintenance review
After Changes or Incidents	Equipment additions, shutdowns, trips, water events, outages, or unexplained issues

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Section 1: Electrical Rooms & Access

Purpose: Keep electrical equipment accessible, visible, and serviceable.

Checklist Item	Status	Notes
Electrical panels, switchgear, transformers, and disconnects are accessible		
Electrical equipment has clear access		
Electrical rooms are clean and clear of debris		
No visible water, moisture, or corrosion stains		
Electrical rooms are adequately lit		
Doors, locks, and access controls function		
Equipment labels are visible and up to date		
No unusual heat, odours, buzzing, or noises		

Call an electrical contractor if you notice : Water near electrical equipment, burning smells, buzzing/crackling, heat, corrosion, damaged equipment, or blocked access that prevents safe service.

Section 2: Panels, Breakers, Disconnects & Distribution

Purpose: Identify visible signs of stress, wear, or recurring electrical problems.

Checklist Item	Status	Notes
Repeat breaker trips		
Panel directories are accurate and readable		
Burning smell, discolouration, or heat is present around panels		
Buzzing, humming, crackling, or unusual sound present		
Visible corrosion, water marks, or physical damage		
Covers and doors are secure and undamaged		
Disconnects are labelled and accessible		
Known recurring electrical issues are documented		

Contractor review may include:
Panel inspection, breaker testing, infrared scanning, torque checks where appropriate, repair recommendations, and replacement planning.

Section 3: Production Equipment, Motors & Power Issues

Purpose: Catch electrical problems that show up as production interruptions, equipment faults, or nuisance issues.

Checklist Item	Status	Notes
Motors are not running hotter than normal		
Equipment is not tripping during startup		
Machines are not resetting unexpectedly		
Unexplained drive, control, or PLC faults		
Recurring electrical 'glitches' reported		
Issues after equipment moves, service work, or utility interruptions		
Phase loss, phase imbalance, or phase sequence concerns have been documented		
Unexplained shutdowns are logged with date, time, and affected equipment		

Good documentation fields: Date, time, equipment affected, symptoms, operator notes, breaker/panel involved, duration of downtime, and whether the issue repeated.

Section 4: Lighting & Emergency Lighting

Purpose: Reduce safety issues, production disruption, and lighting complaints.

Checklist Item	Status	Notes
Production areas have adequate lighting		
Stairwells, exits, corridors, and exterior paths lighting		
Recurring fixture failures in the same area		
Flickering or intermittent lighting issues		
Exit signs are visible and functioning		
Emergency lighting units appear operational		
Lighting controls, timers, sensors, and contactors are working properly		
Exterior and parking lot lighting is functioning		

Escalate if: Emergency lighting fails, exterior safety lighting is out, lighting issues repeat in the same area, or flickering affects workspaces or production areas.

Section 5: Backup Power & Generators

Purpose: Reduce safety issues, access problems, production disruption, and repeated lighting complaints.

Checklist Item	Status	Notes
Generator alarms or fault indicators are reviewed		
Current generator exercise/testing records		
Fuel level and fuel condition are being monitored		
Battery condition is checked as part of service routine		
Transfer switch operation is reviewed by qualified personnel		
Critical loads connected to backup power are documented		
Recent building load changes have been reviewed		
Maintenance records are stored and easy to access		

Especially important for: Production facilities, long-term care homes, healthcare environments, cold storage, food processing, critical operations, and buildings where outages create serious risk.

Section 6: Infrared Scanning & Power Quality Monitoring

Purpose: Find hidden issues that may not show up during a visual inspection.

Checklist Item	Status	Notes
Critical panels and equipment		
Known hot spots or past scan findings have been repaired or monitored		
Recurring nuisance trips have been documented		
Flickering lights or unexplained voltage issues have been logged		
Equipment resets or control issues have been reviewed		
Power quality monitoring/data logging has been considered for intermittent issues		
Major equipment additions have been reviewed for electrical impact		
Aging electrical equipment has been identified for future planning		

Consider contractor testing when: Issues are intermittent, production downtime is costly, equipment is aging, major loads are being added, or no one can clearly explain recurring electrical problems.

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Section 7: Documentation & Maintenance Planning

Purpose: Turn scattered issues into a usable maintenance plan.

Checklist Item	Status	Notes
Panel directories are updated		
Equipment lists are maintained		
Critical loads are documented		
Breaker trip history is recorded		
Generator test and service records are stored		
Infrared scan reports are saved		
Power quality reports are saved		
Electrical service calls are logged		
Recommended repairs are tracked		
Deferred repairs are assigned a timeline or budget year		
Completed repairs are marked and dated		

To consider: Issues are intermittent, production downtime is costly, equipment is aging, major loads are being added, or no one can clearly explain recurring electrical problems.

Facility Maintenance Snapshot

Question	Yes	No	Not Sure
Do we know which electrical equipment is most critical to operations?			
Do we have updated panel directories?			
Do we document breaker trips or electrical faults?			
Do we have generator/backup power records?			
Do we know when our last electrical inspection or scan was completed?			
Do we have recurring issues that have not been investigated?			
Do we know what electrical repairs should be budgeted for next year?			

If you answered **“No”** or **“Not Sure”** several times, your facility may benefit from a planned electrical maintenance review.

Call a licensed electrical contractor if you notice:

- Burning smells, smoke, heat, or discolouration
- Water near electrical equipment
- Buzzing, arcing, or crackling sounds
- Phase loss, phase sequence, or power quality concerns
- Generator or transfer switch faults
- Electrical issues affecting production equipment
- Emergency lighting failures
- Damaged panels, disconnects, or electrical equipment
- Repeated breaker trips
- Any issue your team cannot safely assess

Important note: Do not repeatedly reset breakers or ignore recurring faults. Repeated issues usually mean something needs to be investigated.

Contact Kraun for any electrical preventative service needs by calling 905-684-6895 or emailing service@kraun.ca