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How to Prevent Costly Electrical System Problems

Why Preventive Maintenance Is More Important Than Ever

Electrical-related fires are occurring more often and causing more severe losses. Like the country's aging and overburdened electrical infrastructure, buildings and electrical systems are aging and may not be designed to handle the load most businesses need as they add more equipment.

Inadequately maintained electrical systems also are a leading cause of business interruption, poor energy efficiency, equipment wear-out and breakdown—all costly problems. An effective electrical preventive maintenance program can reduce your risk of an unscheduled outage by as much as 66% according to statistics from the Institute of Electrical and Electronics Engineers.



Electrical equipment rooms that are used for storage can create property and liability exposures.

What You Can Do To Keep Your Electrical System Safe

Focus your electrical preventive maintenance program on the most common and frequent problems leading to electrical fires and equipment failure. That includes inspection and preventive measures to ensure electrical apparatus is kept clean, cool, dry and tight.

Keep It Clean

- Electrical apparatus and equipment rooms should be free of excessive dust and dirt accumulation.
- Don't use electrical equipment rooms for storage.
- Limit access to authorized operations and maintenance personnel.
- Maintain proper lighting to ensure correct and efficient operation and maintenance.

Keep It Cool

- Prevent excessive heat buildup in electrical apparatus enclosures and equipment rooms. Exceeding design temperatures could be a fire hazard, and can also shorten the life of equipment.
- Maintain cooling fans or blowers installed on equipment to provide adequate cooling.
- Keep ventilation openings in equipment enclosures clean and free from obstruction.
- Change or clean any installed filters according to the manufacturer's recommendations.

Keep It Dry

- Keep equipment rooms dry and protect equipment from moisture. Persistent exposure and direct contact with moisture can cause equipment to fail or shorten its life.
- Check equipment for moisture contamination. If found, examine equipment for damage and get necessary repairs made. Identify and eliminate the source of moisture.

Keep It Tight

- Loose connections are the most common source of electrical equipment failure.
- Check all connections and ensure they are kept tight.
- Follow any applicable manufacturer's instructions for tightening.
- Get an infrared imaging survey to test for loose connections.

Where to Begin with a Maintenance Program

The first step in conducting electrical equipment maintenance is following applicable jurisdictional code requirements and specific manufacturers' recommendations.

Regular and routine maintenance is extremely important. Preventive maintenance should be performed at least every three years or more often when conditions warrant.

Please remember, it takes qualified and competent maintenance personnel to properly, safely and effectively maintain electrical equipment.

Electrical system maintenance increases safety and decreases losses. Reduce your risk of fire, equipment breakdown, business interruption, equipment inefficiency and premature wear-out with a preventive maintenance program.

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The article is a brief overview of Electrical Preventative Maintenance. This is to be used as an introduction to the topic and a starting place for additional research. Specific questions about this article should be directed to your HSB representative.

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