



SUMMER HEAT AND STORMS CAN CAUSE ELECTRICAL SURGES — WILL YOU BE READY WHEN THE POWER GOES OUT?

Hartford Steam Boiler Offers Guidelines To Help Reduce The Risk Of Equipment Damage

HARTFORD, Conn.,— Storms and a heavy demand for air conditioning in summer lead to millions of dollars in equipment losses each year as high-voltage power surges strike electrical systems in homes, businesses and institutions. Poorly maintained or mismatched electrical equipment adds to the problem of electrical breakdowns.

It's important to take steps now to protect equipment from damage and prepare for the loss of electric power, advise the equipment specialists at The Hartford Steam Boiler Inspection and Insurance Company (HSB). The company is offering guidelines to help consumers and businesses reduce the risk of equipment losses.

“A power surge can come from many sources,” said William Bartley, P.E., a Principal Electrical Engineer for HSB, who works with clients and insurers to help protect and restore electrical equipment. “The most obvious is lightning, but these high-energy pulses can also come from normal utility switching operations, or when a power line falls to the ground during a windstorm. Surges can come from the outside and inside a building, even from air conditioners, motors and pumps, and other equipment.

Surges may result from blackouts as utilities strain to keep up with demand in the peak summer months. In these cases, the damage occurs not when electricity suddenly cuts out, but when it resumes, sending a sudden surge through the lines. Electrical damage also can be caused by voltage sags or longer lasting brownouts which reduce power levels and cause equipment to work harder. These conditions are collectively known as electrical transients and disrupt the quality of power flow necessary for the normal operation of equipment.

How to Protect Property and Equipment

Although there is no way to guarantee that home or business equipment will not be damaged by power surges, properly sized and grounded surge suppression systems are the best defense against power spikes from any source. The following guidelines can help protect against equipment breakdowns and related property damage.

- **Pull the Plug.** Whether it's during or after a storm or power outage, the best way to avoid surge damage is to unplug equipment and turn switches off. Once the threat passes or power is restored, plug the equipment back in one piece at a time, starting with units closest to the power source to limit potential damage.
- **Install Surge Protection.** These devices should be placed inside and outside a building. Utility power lines are not the only path for voltage surges to enter. Telephone lines, computer lines, modems, faxes — any equipment connected to the outside world

can be a source. It is critical that a building have a good, low-resistance grounding system. Consult a licensed electrician.

- **Protect Critical Equipment.** Computers are not the only equipment risk. Don't forget surge protection devices for each piece of important equipment and all sensitive systems, including communications lines and networks. Households should also protect televisions, home entertainment systems, security systems and similar property.
- **Emergency Generators.** If you don't have emergency generators, consider a rental agreement with a dependable local vendor.
- **Uninterruptible Power Supply (UPS).** If computer loads or communications systems utilize the UPS to continue operating through short-term outages, have procedures for an orderly shutdown. Usually, the UPS will provide power for 15 to 60 minutes so you can save and protect data.
- **Power Outage Procedures.** Keep written procedures on what to do in a power emergency in a central location. Include emergency contacts, such as electrical and repair contractors.



The Hartford Steam Boiler Inspection and Insurance Company is a global specialty insurer and reinsurer. One of the world's leading equipment breakdown insurers, Hartford Steam Boiler helps clients reduce risk through a unique combination of specialty coverages, engineering-based risk management strategies and loss reduction services. For more information about Hartford Steam Boiler including more detailed information about maintaining and protecting electrical equipment visit its Web site at www.hsb.com.