

North Dakota State Fire and Tornado Fund

Providing affordable property insurance coverage for the State and its political subdivisions since 1919.



Policyholder Lightning Loss Prevention Guide



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Did You Know?

- Lightning claims have a major impact on the insurance industry each year.
- Lightning strike losses occur in almost every geographical area.
- Each year, tens of millions of lightning strikes are recorded in the United States and Canada, costing insurance companies in excess of \$700 million.
- Each year, there are thousands of injuries and deaths attributed to lightning.



Essential Steps in Lightning Loss Prevention

The North Dakota Insurance Department offers the following suggestions to minimize the risks to life and property impeded by lightning:

- During a lightning event, always seek safe shelter. Avoid being near trees or metal structures.
- Never use small hand-held electrical appliances during severe electrical storms.
- Never be in contact with water (i.e. swimming pools, bathtubs or water lines) during electrical storms. Water is a natural conductor of electricity and a common source for lightning strikes.
- Avoid contact with electrical metal appliances. Most major home appliances (stoves, refrigerators, washers and dryers) are provided with manufacturer ground systems (wires) which may be inadvertently left off or disconnected. Even with proper grounding in place, a lightning strike will dissipate energy through multiple paths in a well-grounded human who is touching the appliance.
- Lightning rods should be installed on roof tops, grounding systems must be installed on buildings and surge protectors should be installed on sensitive electronic equipment. Keep trees and vegetation trimmed away from electrical lines and electrical systems. Both trees and above ground power lines are a target for lightning strikes. Keep them separated and the risk of damage can be reduced.
- Electrical lines, telephone lines and cable lines (even underground) are prime candidates for lightning strikes. All of these systems should be properly grounded where they enter a building. All exterior electrical systems (i.e. pumps, sprinkler systems and lights) should also be properly grounded. Property grounding systems vary depending on local codes and soil materials. Generally, local utility companies can assist in determining adequate grounding systems.
- All AC powered equipment should be installed by a qualified electrician who understands National Electric Code, as well as local codes, to ensure proper grounding.
- Telephone and cable lines, even if properly grounded, are susceptible to damaging power surges caused by lightning strikes. Surge protectors should be installed at televisions, computers and telephone systems.

Essential Steps in Lightning Loss Prevention cont.

Although surge protectors reduce the risk of electrical damage to sensitive equipment, they do not eliminate the possibility of lightning related damages. Therefore, it is a good idea to unplug all televisions, computers, computer modem phone lines and portable telephones during electrical storm events. In fact, it is good practice to unplug these systems in your business when they are not in use during extended periods (weekends or vacation periods), especially during electrical storm season.

HVAC and refrigeration systems are especially prone to lightning strikes. By lowering the temperature or turning off these systems (at the thermostat) during electrical storms or when your business is vacant during the electrical storm season, you can minimize your risk for potential electrical damage. Oftentimes, the motor, starting under the load of the compressor, is damaged directly by lightning or by multiple restarts during “brown outs” and/or outages.

Today, meteorologists can accurately predict weather events, including electrical storms. When severe weather is expected, listen closely to the information provided and take appropriate precautionary actions.

While these suggestions will not totally eliminate your exposure to lightning damage and/or injury, practicing precaution in every area possible can greatly reduce your risk of harm by one of nature’s most damaging forces—lightning. Please contact your local utility company and qualified electrician today to schedule an appointment to have your buildings and equipment inspected for proper grounding and surge protection.



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A handwritten signature in black ink that reads "Jon Godfread". The signature is stylized and cursive.

Jon Godfread
Insurance Commissioner

The Special Funds Division of the North Dakota Insurance Department endeavors to handle the needs of our customers the right way the first time—accurately, fairly and timely—and always with the benefit of prevention, safety and education.

Let's all do our part to keep
the cost of insurance affordable.