

# THE PROTECTOR

A QUARTERLY PROPERTY LOSS CONTROL NEWSLETTER

ISSUE EIGHT

Q3 2022

## IN THIS ISSUE

### ALL ABOUT LIGHTNING SAFETY

### WHAT DO YOU NEED TO KNOW: PROPERTY INSURANCE & LIGHTNING

### LESSONS LEARNED: LIGHTNING LOSSES & MITIGATION APPROACHES

### LAW ENFORCEMENT CORNER: CRAWFORD COUNTY SO EMERGENCY MANAGEMENT



**MARK MCGINNIS**  
CERTIFIED CONSULTING METEOROLOGIST  
MMCGINNIS@FAIRSKIESCONSULTING.COM



# ALL ABOUT LIGHTNING SAFETY

**MARK MCGINNIS**

CERTIFIED CONSULTING METEOROLOGIST | FAIR SKIES CONSULTING

Lightning is a fascinating display of nature that is beautiful to watch and, at times, dangerous to be around. It is also something we have seen over our lifetime, but many of us do not understand how it forms and what we can do to reduce our risk of being struck by lightning. According to NOAA, the United States is struck by lightning 30 million times every year. So, as a country, we are struck by lightning often.

## Lightning Facts

Lightning only forms in thunderstorms. It does not occur in any other form of weather. In Wisconsin, most of our thunderstorms occur from April through early September. This is the period of time that lightning is most common in our state. Charges build up on water droplets in every cloud. In thunderstorms, some droplets rise and cool to form ice. Water droplets also collide with ice and other water droplets exchanging or building up charges. Most water droplets hold a negative charge and most, but not all, ice crystals hold a positive charge. Each thunderstorm has hundreds of millions, and even billions, of water droplets and ice crystals. Larger and more severe thunderstorms hold more droplets and ice crystals, resulting in more collisions. As a result, larger and severe thunderstorms have more lightning than an average thunderstorm. When charges build up, there is a discharge or lightning strike.

Lightning can travel through the air, it can travel cloud to cloud, it can remain in the cloud and also

it can travel to the ground. On average only 30% of lightning goes from cloud to ground. This is the lightning that impacts us the most, for obvious reasons. Most lightning strikes in the storm (when it is raining) are negatively charged. These strikes are dangerous but are not the most powerful lightning strikes. By far, positive lightning strikes are more powerful. Most positive lightning strikes travel from the top of the thunderstorm to the ground – many miles and occur frequently when it is not raining.

The typical lightning bolt is 50,000° F – five times hotter than the surface of the sun! Lightning travels at 60,000 miles per second and contains 100 million to 1 billion volts. Thunder occurs from the rapid expansion of air next to the very hot lightning. This rapid expansion creates the loud boom of thunder.

When outdoors, tall, isolated and metal objects attract lightning. Locations like stadiums, county fairgrounds, campgrounds and county parks are locations to avoid in thunderstorms. It is also recommended to not gather in groups if you are stuck outside in a thunderstorm. If you are stuck outside, disperse and crouch down and grab your knees in bear hug and try to balance on the front of your feet with your heels off the ground. It is also safer to be in a forest than out in a field. This is not a great scenario as entering a building or car is much safer. If you are aware of the forecast and act early, it increases your likelihood of finding better shelter from lightning in a building or car.

ALL ABOUT LIGHTNING SAFETY / CONTINUED ON PAGE 4

#### ABOUT THE COUNTY MUTUAL

The Wisconsin County Mutual Insurance Corporation (County Mutual) provides public entity liability, workers' compensation, and property insurance solely to Wisconsin counties.

#### ABOUT COMMUNITY INSURANCE CORPORATION

Community Insurance Corporation (CIC) provides liability, workers' compensation, and property insurance to Wisconsin school districts and local units of government.

ISSUE EIGHT Q3 2022

## THE PROTECTOR

# WHAT DO YOU NEED TO KNOW



## PROPERTY INSURANCE & LIGHTNING

**Lightning is an interesting peril when it comes to property insurance. It is impossible to predict when or where lightning is going to strike, making it extremely treacherous. One thing is certain: when it does strike, it is powerful and has the capability to devastate your property. Should a lightning strike occur to one of your property's insurable assets, you can rest easy knowing your Wisconsin County Mutual Insurance Corporation (WCMIC) and Community Insurance Corporation (CIC) property policy will respond.**

### Lightning & Coverage

To understand how the coverage will respond, you must first understand your coverage.

Property insurance provides coverage for direct physical damage from a covered cause of loss to covered property. Your WCMIC/CIC property insurance policy is an All-Risk or Special coverage form policy, meaning all risks are included unless specifically excluded vs. other commercial carriers who may offer a Basic or Broad coverage form policy. Basic or Broad coverage forms specify the covered cause of loss or peril to which the coverage responds, unlike the All-Risk or Special Form, which covers any type of loss that generates direct physical damage to your property unless excluded. Examples of a covered cause of loss include but are not limited to fire, wind, hail, theft, vandalism, and lightning.

Covered property includes buildings, contents, and property in the open (PITO). Buildings are self-explanatory, they are buildings, but contents and/or PITO may be confusing to the insurance novice. Contents are physical assets stored inside your buildings.

An easy way to think about contents is tip the building upside down and shake it – anything that falls out is considered contents. Property in the Open or PITO can be thought of as anything permanently affixed but not attached to a building. Keep in mind that there are exceptions to this thought, but in most cases, it holds true.

Equipment Breakdown insurance provides coverage for a covered cause of loss due to breakdown of equipment owned or in your care, custody, or control and for which you are legally liable. Covered Equipment includes but is not limited to electrical, mechanical, air conditioning & refrigeration, boilers & pressure vessels, computers & communications, renewal energy, and production equipment.

Almost all property policies exclude mechanical breakdown, electrical arcing, explosion of steam boilers, piping, engines, turbines, loss or damage to steam boilers or hot water boilers. Thus, the need to obtain coverage to fill the gap.

The County Mutual offers property and equipment breakdown coverage through its property policy. The equipment breakdown coverage is a standard endorsement. It is part of the policy and always included. This is important for many reasons, like the gap previously mentioned, but perhaps the most important reason is to eliminate coverage disputes. In most cases, property and equipment breakdown losses run hand-in-hand, and a prime example of this could be a lightning loss.

### The Importance of a Single Carrier

Lightning is a covered peril under your property policy, but it is excluded peril from equipment breakdown coverage. In other words, damage from a direct lightning strike would be covered under your property policy, while a power surge because of a lightning strike causing damage would be covered under equipment breakdown coverage. Therein lies the rub. In many cases, this can be hard to determine and leads to disputes.

Whether you buy coverage from us or not, be careful and ensure you obtain one policy from the same carrier containing both property and equipment breakdown coverages.

Do not be led astray by agents who tell you a joint loss agreement is in place to prevent dispute. Joint loss agreements dictate the terms at which an insured is made whole if two carriers are utilized, one for property and one for equipment breakdown, and enter a dispute. They don't prevent disputes.

When two carriers are utilized, there can be a significant amount

WDYNTK / CONTINUED ON PAGE 4

*This material does not amend, alter, or otherwise affect, the provisions or coverages of any insurance policy or bond issued by WCMIC or CIC, nor is it a representation of coverage that does or does not exist for any particular claim, loss or dispute under any such policy or bond. Coverage depends on the facts and circumstances involved in the claim, loss, or dispute, all applicable policy or bond provisions, and any applicable law.*

# THE PROTECTOR

## LESSONS LEARNED:

### LIGHTNING LOSSES & MITIGATION APPROACHES



Lightning is unpredictable and poses a significant hazard to life and property. According to the Lightning Protection Institute (LPI), lightning is second to floods when it comes to deadly weather, and 10% of people who come into direct or indirect lightning strikes die.

In addition to life safety, lightning property losses can cause direct and indirect damage – from fires to system loss, lightning can damage buildings and incapacitate electrical systems, communication systems, and your organization's IT infrastructure.

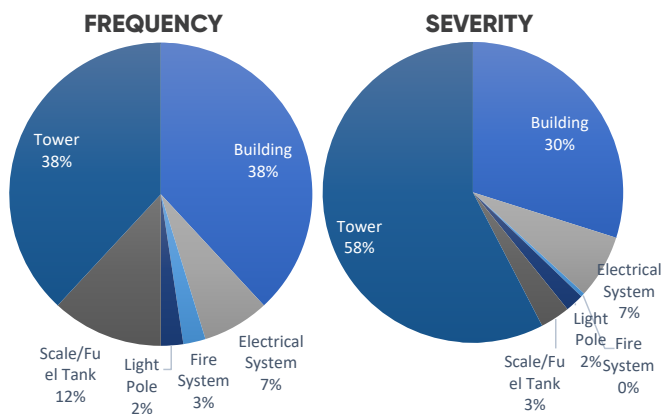
#### County Mutual/CIC Lightning Loss Data

According to the LPI, since 2018, in the United States alone, there have been over 78,000 lightning loss claims costing nearly \$1 Billion. The County Mutual and CIC maintains detailed loss information for all property claims – including lightning strikes. The below table and graph summarize our loss experience and frequency and severity by type of property.

#### Historical Frequency & Severity

Policy Term	# of Claims	Total Net Loss (\$)
2017	8	231,724.16
2018	3	54,641.29
2019	7	88,293.31
2020	5	15,962.80
2021	7	48,266.70

#### Frequency & Severity by Type of Property



#### Insights

The data shows that for both frequency and severity, Towers and Buildings are most affecting by lightning and resulting losses. As a result, let's look at general mitigation steps for these types of property, at your operations as a whole.

#### Lightning Mitigation Approaches

- Back to the basics:** If you hear thunder – you're within range of dangerous lightning. Move everyone that is outdoors, indoors – or within a hardtop vehicle. Stay away from windows and electrical appliances. Wait 30 minutes after the last clap of thunder to go outside.
- Evaluate and understand your threat exposure:** For each of your operations, consider the potential threat of lightning and what mitigation steps to deploy.
- Develop a plan, test and drill it:** Develop a severe weather plan that addresses all facets of dangerous weather – including lightning. Train staff and volunteers in the plan and conduct routine drills to ensure it works.
- Lightning Protection System (LPS):** Lightning Protection Systems are a series of technical mitigation tools that prevent damage to buildings and other property. LPS's include
  - Air terminals (lightning rods)** – spaced according to safety standards
  - Down conductors** – cables connecting the terminals to grounds.
  - Bonding** – joining metallic bodies and roof components to ensure conductivity.
  - Grounds** – minimum of two (2) ground rods at least 10 feet deep into the earth.
  - Surge arresters** – installed at electrical panels and surge suppressors provided for electronic devices.
  - Installation** – installation should be completed by a qualified professional, in accordance with applicable Lightning Protection Institute (LPI) standards.

If you would like more information about LPS's, or are looking for additional information regarding lightning and severe weather safety – consult the following websites: **United States Department of Homeland Security – Ready.gov** ([www.ready.gov](http://www.ready.gov)) / **Lightning Protection Institute** ([www.lightning.org](http://www.lightning.org)). 🏠



## THE PROTECTOR

WDYNTK  
CONTINUED

of time for you to be made whole, and this can create a challenge. Both carriers will need to investigate and review the loss, make determinations on what they believe they are responsible for, then present those determinations to each other, and all three parties (you and the two carriers) need to agree to the total amount of loss. This process can take months or even years. If the two carriers disagree or dispute liability for portions of the loss, arbitration will likely occur. Another item to think about is that you "the insured," may dispute what you're owed.

The logical answer to this scenario is to simplify your position. Place your coverage with one carrier offering both the property and equipment breakdown through the same policy. Eliminate the multiple carrier investigation, claim handling/management, and potential for multiple carrier disputes. Make the loss simple. It's either covered or not covered. Time is money, and creating the potential for a lengthy claim settlement isn't worth saving a few dollars. 🙌

ALL ABOUT LIGHTNING SAFETY  
CONTINUED

### Lightning Safety

The moment you hear thunder, you are within range and can be struck by lightning. You should immediately move indoors or into a hardtop vehicle with the windows rolled up. Remain indoors and away from windows until 30 minutes has passed since the last clap of thunder. When rain ends is the time when the positive and powerful lightning strikes hit from the back of the storm. When indoors, you can take additional steps by unplugging appliances, computers and other electronics.

### Lightning Mitigation

It is important to understand and evaluate your threat exposure to lightning. What events and activities are held outside? Are there accessible shelters for all people attending those events and activities? Is there a written plan of action with assignment of duties in the event of lightning? Are your employees and decision makers trained on the policy and know their responsibilities? Do you conduct annual training and drills? Drills expose the weaknesses in the plan and are vital! Finally, do you conduct a review after each event and annually to improve the plan?

### Lightning Conclusion

Lightning only occurs in thunderstorms, but those storms most often occur from spring through early fall when most Wisconsinites are outside enjoying nice weather. We cannot determine where exactly lightning will strike, but if you know the weather forecast (from a reliable source like the National Weather Service or local media) and understand how that forecast interacts with your scheduled activities, you can mitigate risk by adjusting. Research from FEMA has proven that written policies, based on education, communication and training reduce casualties and damage. They make our com-

munities more resilient to changing and extreme weather. I hope you use this information to make your communities and residents safer.

**Based right here in Wisconsin, Fair Skies Consulting serves communities across the United States by creating weather hazard plans for school districts, municipalities and counties. These plans use the National Weather Service StormReady template of federal best practices to mitigate weather threats and meets or exceeds those standards. FEMA supports StormReady by assessing points for StormReady communities. These points can lower annual rates for communities that purchase flood insurance through the FEMA run National Flood Insurance Program (NFIP). FEMA funding, through grants, can also pay for a community to become StormReady. 🙌**

## PROPERTY SCHOOL

### STREAM ALL PROPERTY SCHOOL WEBINARS

## WANT ACCESS?

EMAIL JOSH DIRKSE AT  
JOSH.DIRKSE@CHARLESTAYLOR.COM

## THE PROTECTOR

## LAW ENFORCEMENT CORNER



## DIRECTOR JAMES HACKETT

### CRAWFORD COUNTY SO EMERGENCY MANAGEMENT

**Crawford County, Wisconsin** consists of a population of 16,155 citizens. We are a rural community that is bordered by the Mississippi River and Wisconsin River. Our biggest population base is Prairie du Chien, which is Wisconsin's second oldest city and is full of history. **Crawford County Emergency Management** office is a unique Office when it comes to Emergency Management. It consists of two full-time employees and one part-time employee that are under the Crawford County Sheriff's Office. The employees are certified law enforcement deputies who carry out law enforcement duties while conducting Crawford County Emergency Management planning and response. This includes being a point of contact between federal, state, local agencies, and the County Government. Crawford County Emergency Management staff is on the Tactical Response Team, honor guard, and oversees the Drone Team.

Crawford County Emergency Management is in the middle of its severe weather campaign. We have completed a full-scale county-wide tornado drill, media blasts on the radio/Facebook with weather radio giveaways, and have obtained grant funding to better our drone response. Drones are extremely valuable tools to use when dealing with severe weather recovery. We utilize our drones with the state of WI Drone network. When severe weather occurs, we divide response into four parts 1) Prepare 2) Respond 3) Recover 4) mitigate. Drones can be used in every one of these phases. For our department, we have used our drones to increase community protection. We use them to check on trapped residences that we can't access due to storm damage/flooding, document storm damage, and check on damage to infrastructures that would not be safe to do in person (bridges, second story of buildings, roofs, possible pending rockslides). Outside of severe weather, our drones are used in traffic crash investigation, crime scene documentation, tactical team reconnaissance, and missing/wanted person recovery.

When thinking of a recent incident involving severe weather and how our department could have responded differently, one incident sticks out in my mind. It was July of 2021, and a strong storm had passed through our area, causing damage, power outages, and residents being trapped due to washed-out road accesses. One property had bridge access wiped out and had two residences at the end of the lane. The individuals that lived there were known to have health issues, and our first responders

have been there an increased amount recently. We had contact with one of the two residences due to her having a cellphone that was charged. We knew that both properties had limited access to food and water, power was out, it was 90+ degrees outside, and we could not access the home unless we used UTVs, which would not support a backboard if it was needed. The individual in phone contact was informing us that she had a vehicle that she was using to charge her cell phone and get access to air-conditioning when she needed it, but she only had 1/8 tank of gas left.

Meeting with the county, village, and township officials, the question arose whose financial obligation is it to provide access to the residents. This was private bridge access on private property. After consulting with Corporation Counsel, we were informed that the Village and County do have a legal obligation to provide emergency access to the property due to us knowing the underlying health concerns and knowing that we could not provide adequate law, EMS, fire, and first responder response.

The solution we came up with was that the County Highway Department would pull the trees/debris out of the way, coordinate with the village's dirt pile (which was created from another project), take the dirt and dump it across the creek bridge (over the tubes that the bridge used, to still allow for water flow). This created a big enough access to get all fire equipment across (the biggest truck we had to plan for). This was a temporary fix but allowed for a full response.

Going forward, we have created a county ordinance that addresses this concern and have created a standard operating procedure between Crawford County, Emergency Management, and Crawford County Highway Department. We also plan to use the drone to document the damage to be able to better understand what we are dealing with/what is required of the highway department. The drone is now in our plan to provide communication to the other residents (through payload delivery such as a cell phone). This whole incident response lasted two days. Now with an operating procedure, not having to contact Corporation Counsel, and having a better understanding of our legalities, this issue can be addressed on the first day, pending resource availability. This is a great example of multiple governments working together towards a common goal. 🇺🇸