

Hurricanes, tropical depressions and floods-oh my!

September 2008

“Everybody talks about the weather, but nobody does anything about it.”

-Mark Twain, editorial in the Hartford Courant, August 24, 1897

“Just a reminder to everyone to please be sure and close all windows in your suite before leaving today because of high winds and heavy rains predicted for this weekend. Have a great and safe weekend.”

-Brenda/Receptionist, email to tenants September 5, 2008

It is September 2008 and the hurricane season still has nearly 90 days to go as the “season” is considered to be June 1 to November 30. This week Hurricane Gustov narrowly missed New Orleans. Tropical Storm Hanna, Hurricane Ike and Tropical Storm Josephine are lining up in the Caribbean and may make land later this week. Thousands of private and public organizations in hundreds of US cities and towns will brace for these storms. Risk management professionals will try to answer the ongoing “what if” questions: What wrath will these storms bring to the organization and will our property insurance be sufficient for potential damage, lost earnings and increased operating expenses?

Mark Twain’s comments from 1897 do not have to ring true. Weather risk management may be as simple as the *loss prevention* email note sent by Brenda to all tenants of a Providence, RI office complex. Risk management professionals need to talk about the weather in order to determine what may happen from any weather condition: exposure identification-step one of the risk management process. Once the exposures are identified and understood then the risk management professional CAN DO something about the possible outcomes of a weather event. In this article we review weather events and the use of commercial property insurance in the post Katrina insurance marketplace. An organization need not be in a coastal area to find that its operations are impacted by a coastal event that takes place hundreds of miles away.

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It does not take much in total insurable values in weather prone areas of the US for a property insurer to restrict capacity for windstorm and flood coverage by reduced limits and mandated specific windstorm and flood deductibles. Weather related coverage issues can be further complicated when an insurance buyer must obtain coverage from not one insurer but several when insured by a multi-insurer and multi-policy layered program. Weather related coverage issues are no longer simply an issue for southern coastal states but today impact commercial property insurance buyers along the Gulf and Southern seaboard, north from Florida to Maine and inland for many miles.

Exposure identification

There are many potential risks of loss that may arise from a weather event especially when one considers the devastation of wind and flood; one person can not assume to identify them all. To understand weather loss exposures the risk management professional needs to *first* communicate *within* the insured organization from operations personnel to facilities management to human resources to those charged with business continuity and disaster planning.

The insured location

This stage of the risk management process is not simply what can happen to an organization from a weather event but how to quantify or measure the potential damages. Loss from windstorm or flood may be greater than fire peril for direct damage, business income (BI), continuation of ordinary payroll and extra expense when one factors in the demand surge effect on property damage and an insured’s inability to make timely repair of damages thus extending

the period of interruption and need to utilize other means of operations (extra expense). Demand surge is the hyper/increased cost of supplies and labor after a major loss event (Hurricane Katrina) when many parties seek and bid for construction and repair services at the same time—a modern day example of supply and demand. The greater the area of disaster the greater effect and increased cost of demand surge. The quantification issues of risk of loss and subsequent need for insurance becomes more important to the organization when insurance capacity is limited, price of insurance is expensive and the cost of risk includes significant expense from assumed risk of loss through deductibles and BI waiting periods.

Beyond the insured location

Trading partners of the organization such as critical suppliers and customers may not be static and may change as the insured organization continues to evolve. Supplier and customer changes may introduce new exposures for the risk management professional to consider especially if the new trading partner or customer locations are prone to windstorms and flooding. Will a weather loss event at one of these locations have a significant impact on this organization? Is contingent BI coverage an appropriate response for this exposure when one considers the severity of the exposure, available limit, waiting period and ultimate cost of coverage?

Weather related utility outages may be experienced through a wide geographic area and involve many organizations at once. Loss potential can not be viewed strictly from an insured's single location but must include the affect of many organizations within the same event.

- Is utility interruption insurance an efficient and possible solution for direct damage (perishable goods such as food and medical supplies) and for BI?
- Are risk control practices more cost effective than insurance? Can the organization assume a longer waiting period with optimal risk controls in place?
- Does it make economic sense to purchase power generators prior to a loss event for onsite power use for an electrical outage?
- Will the organization be able to timely locate, purchase or lease appropriate generators after the loss event?
- Generators and related equipment will be subject to demand surge just like construction commodities such as roof shingles, trusses and wallboard.
- Can any operations be shifted to other location even if the costs of operation will be greater at that location?
- Is use of alternate sites been factored into business continuity planning?
- Can the business continuity plan help quantify the need and amount for extra expense coverage?

Will use of alternate sites require changes in the organization's property insurance?

- Change in values and need for changes in coverage limits as well for all risks of loss.
- Determine possible increased insurance cost if alternate site is not equal in physical exposure such as construction, protection, etc..

Weather events can create havoc for everyday transportation which in turn can impact direct damage and BI recovery.

- Will roadways be closed, routes altered, bridges damaged?
- How will supplies arrive and how will product be sent out?
- Will employees be able to make it to the workplace?

Insurance

The next steps in the risk management process include the determination and evaluation of techniques that will address weather exposures and risk of loss. These steps range from risk mitigation strategies such as separation of exposure units, use of redundant operations and forms of risk control such as loss prevention. For this article we assume appropriate risk controls (contents off the floor and out of sublevel storage areas, roofs up to current code, etc.)

have been considered and implemented. Thus the next step to consider is commercial property insurance to address potential loss from coastal weather events.

Perils-flood and wind

When we speak of coastal weather events we need to focus on the perils of flood and windstorm. The definitions of these two perils must be understood in order to determine how coverage, limit and deductible may affect the insured organization after a weather event. Understanding these definitions is critical since there are definite distinctions between loss caused by flood and loss caused by windstorm. Further distinctions are made for coastal area windstorms and the use of the term “named storm” or “named windstorm”.

As the intensity of the wind increases so does the potential for flooding. This is an important issue for the risk management professional to consider as the increased threat of flood, even when the cause is wind, is still considered flood and not windstorm for purposes of coverage. Flood and windstorm, especially when arising out of tropical storms and hurricanes, create unique losses that may result in loss settlement disagreements between insured and insurer. Much discussion, heartache and litigation has resulted from catastrophic storm damage such as that which resulted from Hurricane Katrina. The need to understand the differences between “flood” and “windstorm”, as well as coverage conditions, limitations and exclusions must occur prior to loss. Understanding flood coverage is especially time critical since commercial insurers may not bind coverage as a storm is declared to be imminent and coverage sought from the National Flood Insurance Program (NFIP) in most cases will impose a 30 day coverage waiting period once coverage is bound.

Flood

Flood exposures can be deemed nominal to severe and are subject to specific terminology to categorize the physical location of building and contents and the susceptibility to flooding. The categories are created and monitored by Federal Emergency Management Agency (FEMA) for the NFIP.

Flood hazard areas are identified on the Flood Insurance Rate Map as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded). The risk management professional needs to know what flood zone category is used for the organization's locations in order to understand flood coverage that is available from the insurer (whether NFIP or other): limit and deductible that may differ by location/zone and the need for specific coverage from NFIP depending on the exclusion used in the property policy. Information in this paragraph is taken from <http://www.fema.gov>.

Flood loss is usually excluded in any preprinted, standard-type property insurance policy. Depending on the flood exposure an organization may be able to purchase flood coverage from the property insurer and have coverage endorsed onto the policy. A typical exclusion, as used by ISO in its commercial property policy CP 1030 04 02, states the following: “*We (the insurer) will not pay for loss or damage caused directly or indirectly by any of the following. Such loss or damages is excluded regardless of any other cause or event that contributes concurrently or in any sequence of the loss. . .*

- g. Water: (1) Flood, surface water, waves, tides, tidal wave, overflow of any body of water, or their spray, all whether driven by wind or not.”*

What is covered when an insured purchase flood coverage? It will depend on the insurer and wording used. We will examine flood coverage endorsement ISO CP 10 65 1000 (shown below). Are there any apparent differences between the ISO flood exclusion and the ISO coverage endorsement? Yes. The main difference is the peril of wind is not mentioned in the ISO coverage endorsement. Does this mean that flood caused by windstorm (“overflow of inland or tidal water”) is covered in the CP 10 65 1000? Yes. Overflow of inland or tidal water whether caused by deterioration of a dam or by storm surge from hurricane is still flood.

Not all flood coverage is the same; the definition of flood may differ by insurer especially if non-ISO policy forms are used or coverage is obtained from NFIP. These differences may lead to loss settlement issues and unrealized coverage expectations of the insurance buyer. Can these differences be minimized? Maybe, but first the risk management professional has to understand the differences. While it seems that the overall intent of flood coverage is the same there are differences in each definition which may cause one definition to provide coverage while another may not. The differences pose even greater problems when several policies and layers are used to arrange overall property insurance. Whenever possible the flood definition should be the same in the primary and excess layers. If not then provision needs to be made for the differences to limit excess attachment points.

- ISO CP 10 65 1000: *“The following is added to the Covered Causes of Loss: Flood, meaning a general and temporary condition of partial or complete inundation of normally dry land area due to: 1. The overflow of inland or tidal water; 2. The unusual or rapid accumulation or runoff of surface waters from any source; 3. mudslides or mudflows, etc... “.*
- Admitted policy insurer: *“Flood; surface waters; rising waters; waves; tide or tidal water; the release of water, the rising, overflowing or breaking of boundaries of natural or man-made bodies of water; or the spray there from; or sewer back-up resulting from any of the following; regardless of any other cause of event contributing concurrently or in any other sequence of loss.”*
- Non-admitted insurer: *“Flood shall be defined as follows: Surface water, waves or tidal water and the rising (including the overflow or breaking of boundaries) lakes, ponds, reservoirs, rivers, harbors, streams, or similar bodies of water, all whether wind driven or not; mudslide or mudflow; water that backs up from any sewer or drain; any release of water impounded by a dam”.*
- NFIP General Property Form-Standard Flood Insurance Policy: *“A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is your property) from: overflow of inland or tidal waters; unusual and rapid accumulation or runoff of surface water from any source; mudflow (note that term “mudflow” is further defined); collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined . . . above.”*

Differences in definition may not be the only dissimilarity in coverage. This becomes apparent when we look to NFIP as an underlying flood policy with excess coverage by a commercial property policy or when coverage is arranged by multi-layer excess commercial property policy(s). What are other coverage issues?

- NFIP values loss on actual cash value-not replacement cost. The difference in valuation may lead to a coverage gap if the next coverage layer is on a replacement cost basis. An insured can request that the primary property policy provide flood coverage excess of the maximum provided by NFIP. This way the difference in valuation gap may be minimized.

- NFIP provides direct damage only-no provision for business income or extra expense coverage.
- NFIP maximum coverage limits of \$500,000 per building and \$500,000 contents per building may not be sufficient to “fill-in” the deductible of the primary property insurer.

A key challenge to the risk management professional is to quantify the possible loss from flood including any additional flood exposure such as storm surge which may be created by windstorm. While capacity for flood limits may not be sufficient or even affordable it is essential for the insured organization to understand the catastrophic loss potential of a flood event and the need for recovery funds from sources other than property insurance.

Windstorm

Windstorm is normally a covered peril whether an organization purchases “named peril” or “all risks of loss” coverage. Damage that results from windstorm caused flood is still considered damage from flood for purposes of coverage, limit and deductible. When may “wind” become “windstorm” for purposes of commercial property insurance? When it is given a name by either the National Hurricane Center (NHC) or National Weather Service. The devastation capability of a coastal windstorm has resulted in the property insurance term of “named storm” or “named windstorm”. An insurer’s reasoning is to separately define coverage for damage by “generic” wind from that of a coastal weather event such as a hurricane. What is a coastal windstorm? Let’s start with information published by the National Hurricane Center (NHC) (www.nhc.noaa.gov). The information in italics is from NHC.

***Hurricane** is a type of tropical cyclone, which is a generic term for a low pressure system that generally forms in the tropics. The cyclone is accompanied by thunderstorms and, in the Northern Hemisphere, a counterclockwise circulation of winds near the earth's surface. Tropical cyclones are classified as follows:*

- ***Tropical Depression** is an organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds* of 38 mph or less.*
- ***Tropical Storm** is an organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39-73 mph.*
- ***Hurricane** is an intense tropical weather system of strong thunderstorms with a well-defined surface circulation and maximum sustained winds of 74 mph. Hurricanes are categorized by the Saffir-Simpson Hurricane Scale.*

***Category 1 Hurricane** — winds 74-95 mph. No real damage to buildings. Damage to unanchored mobile homes. Some damage to poorly constructed signs. There may be some coastal flooding and minor pier damage.*

***Category 2 Hurricane** — winds 96-110 mph. Some damage to building roofs, doors and windows. Considerable damage to mobile homes. Flooding damages piers and small craft in unprotected moorings may break their moorings. Some trees blown down.*

***Category 3 Hurricane** — winds 111-130 mph. Some structural damage to small residences and utility buildings. Large trees blown down. Mobile homes and poorly built signs destroyed. Flooding near the coast destroys smaller structures with larger structures damaged by floating debris. Terrain may be flooded well inland.*

***Category 4 Hurricane** — winds 131-155 mph. More extensive curtain wall failures with some complete roof structure failure on small residences. Major erosion of beach areas. Terrain may be flooded well inland.*

Category 5 Hurricane — winds 156 mph and up. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required.

When winds from these storms reach 39 mph, the cyclones are given names. Storm names are used to facilitate geographic referencing, for warning services, for legal issues, and to reduce confusion when two or more tropical cyclones occur at the same time.

What happens to property insurance when a storm becomes “named”? It will depend on the policy and the insurer but usually a separate deductible will apply to loss. In some cases a sublimit for windstorm damage will also apply. Named windstorm deductibles will usually apply as a percentage of the total insurable values (building, contents and business income) at, within or attributed to any one building. Depending on the risk of wind loss the percentage deductible may be subject to a minimum dollar amount. Infrequently insurers will offer a maximum deductible for loss arising out of named windstorm. The deductible wording must be reviewed carefully to ensure the percentage applies only to the damaged building(s) and not all total insurable values at the covered location. An insured organization may find it has assumed significant exposure to coastal wind loss via percentage deductible and if coverage is subject to sublimit. Much like the peril of flood the risk management professional should try to quantify the total loss that may occur from a catastrophic windstorm.

Dissimilar Coverage terms

Difference in flood and windstorm coverage terms may lead to attachment problems between primary and excess layers. Some of the coverage issues can be addressed through use of “priority of payments” wording. This type of endorsement is used to ensure the excess insurer will recognize erosion of underlying coverage by policy terms broader than that provided in the excess policy. While the underlying erosion is recognized by the excess insurer it will only pay claims in its layer of coverage that are 1-excess of its attachment point and 2-that are covered by the terms of its excess policy. Priority of payments may be stated as follows:

“Any recoveries made under the primary policy shall be considered as first applying to those perils and/or coverages not insured against by this policy. Upon exhaustion of the primary policy limits, this policy shall drop down and be liable for loss in excess of the amount attributed to the primary policy as respects those perils and/or coverages insured hereunder subject to the limit of this policy.”

(Note: Common problems in layered property insurance programs are reviewed in more detail in IRMI’s “Layered Property Insurance”, *The Risk Report*, Volume XXX, No. 3, November 2007).

Conclusion

Risk of loss from coastal weather events may be greater than loss from perils such as fire, explosion or equipment breakdown. Property insurers address flood and windstorm exposures through specific definitions, limitations and exclusions. Policy coverage must be understood well in advance of any storm-hurricane, tropical depression or flood. Coverage needs and expectations must be addressed pre-loss and not attempted after loss event through litigation. An important part of the risk management process is RTP: Read The Policy.

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