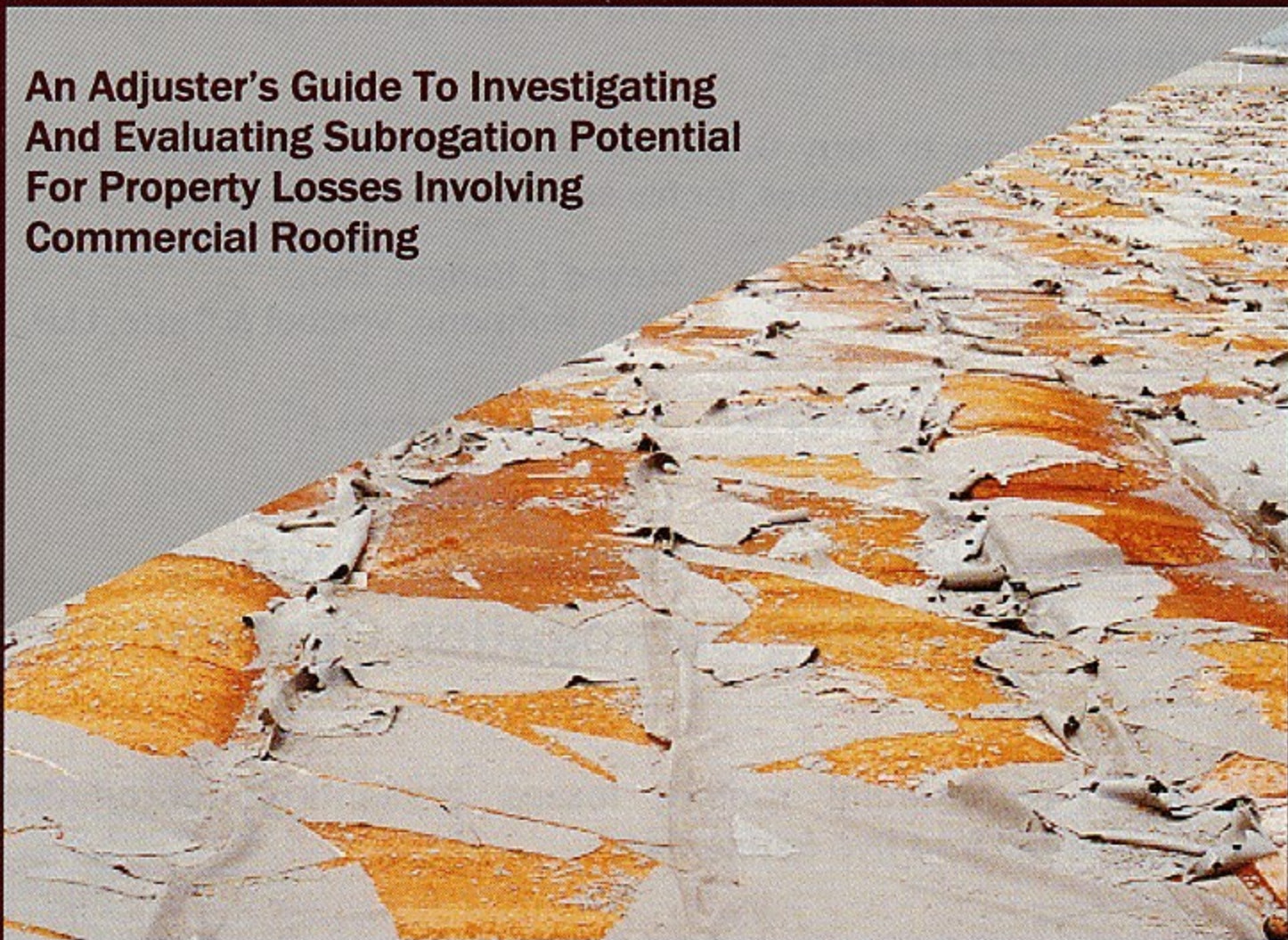


Prepared for and Presented at the
2000 & 2001 Claims Conferences of the
Property Loss Research Bureau

Roofing Subrogation Handbook

An Adjuster's Guide To Investigating
And Evaluating Subrogation Potential
For Property Losses Involving
Commercial Roofing



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Introduction

Property loss claims involving commercial roofing systems typically result from some type of meteorological event, such as rain, wind, hail, or snow. Often, these claims are exasperated by defects or inadequacies in the design or construction of the roofing system, or the products comprising the roofing system. Roofing-related fires are also a common loss occurrence.

This handbook provides a simple overview of the key technical and legal issues typically encountered in the pursuit of subrogation for roofing-related losses. It also provides a simple framework for the adjuster to follow in investigating and evaluating subrogation potential. We hope you find it helpful.

Our thanks to Jerry G. McCall, Executive General Adjuster with Kemper Insurance Companies, for his assistance with this handbook.

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Common Types of Commercial Roofing Losses Presenting Subrogation Opportunities

Most commercial roofing losses presenting subrogation opportunities fall into five categories:



Wind Blow-Off

This type of loss involves either the partial or complete blow-off of the roofing system. It is usually caused by inadequate design for wind-uplift resistance or poor installation.



Hail Damage

Many commercial roofing products can be damaged by small hail. Hail damage typically results from a poorly manufactured roofing product or improper installation.

Roof Collapse

Inadequate rooftop drainage may result in the collapse of a roof structure. Inferior drainage design is the usual cause, but contractor installation often plays a major role.



Extreme Temperature

Some roofing systems can only handle so much cold. An inferior roofing product may simply come apart in cold temperatures.

Fire

Some roofing systems require the use of torches for application. Inadequate safeguards by the roofing contractor may result in a significant fire hazard.



Initial Loss Investigation

Immediately upon notification of the loss and thereafter at the loss site, follow these five important steps to properly investigate and evaluate subrogation potential.

1. Identify Roofing System and Products

The first step is to determine the particular type of roofing system installed on the building. Identify the three components of a commercial roofing system—roofing material, substrate, and decking.

A. **Roofing Material.** Commercial roofing products can generally be placed into five categories, each having various sub-categories:

- Built-Up Roofing
 - asphalt
 - coal tar pitch
 - modified asphalt (including modified bitumen products)
- Single-Ply Membrane
 - EPDM
 - thermoplastic (PVC)
 - hypalon
 - various others
- Polyurethane Foam Roofing (spray-applied)
- Shingle/Tile Roofing
 - composition/wood shingles
 - clay/concrete tiles
- Metal Roofing

B. **Substrate.** Identify the material installed below the roofing surface. This is usually a type of insulation (polyisocyanurate, perlite, fiberglass, or wood fiber). For tile and shingle construction, the substrate is usually comprised of an underlayment (waterproofing sheet) or plywood.

C. **Decking.** Identify the type of structural roof deck involved. Structural roof decks are typically either metal, concrete (structural concrete, lightweight insulating concrete, lightweight structural concrete, or gypsum), or wood.

The following photographs identify some of the more common types of commercial roofing systems:



Built-Up roofing systems are comprised of several layers of felt and tar (or asphalt). They are usually topped with aggregate.



Modified Bitumen membranes are either mopped to the roof with hot asphalt, applied with adhesive, or torch-applied. They are typically black or granule-surfaced.



This clay tile roofing system blew-off in a windstorm. Note the use of an underlayment covering wood battens. Also note the considerable tile breakage.



EPDM roofs are often covered with large ballast. This EPDM membrane is installed over insulation and a steel deck.

2. Document Conditions

Subrogation opportunities are often wasted due to the failure to properly document conditions. It is important that as much information as possible be collected and documented as quickly as possible subsequent to the loss.



Initial Notification—Since a roof provides a building with its primary protection from the elements, most insureds understandably take immediate steps subsequent to a loss to initiate repairs. Upon initial notification of a roof loss, ask the insured to videotape the condition of the roof before any repairs

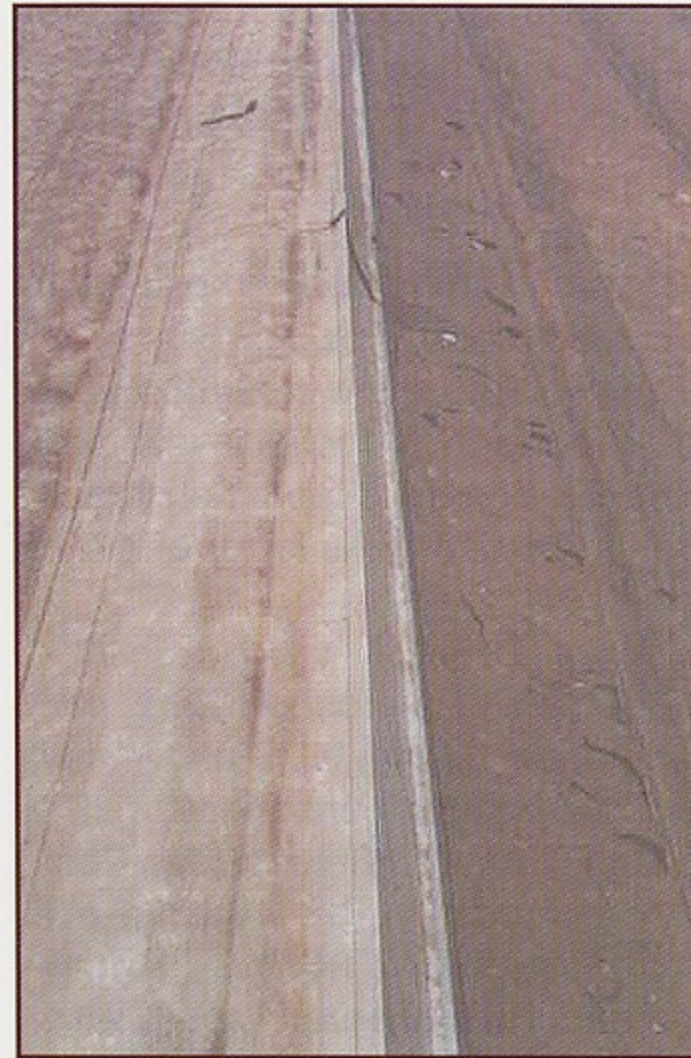
(temporary or permanent) are initiated. Also, whenever feasible, ask the insured to delay permanent repairs until your consultant has had an opportunity to visit and inspect the damage.

Initial Loss Site Investigation

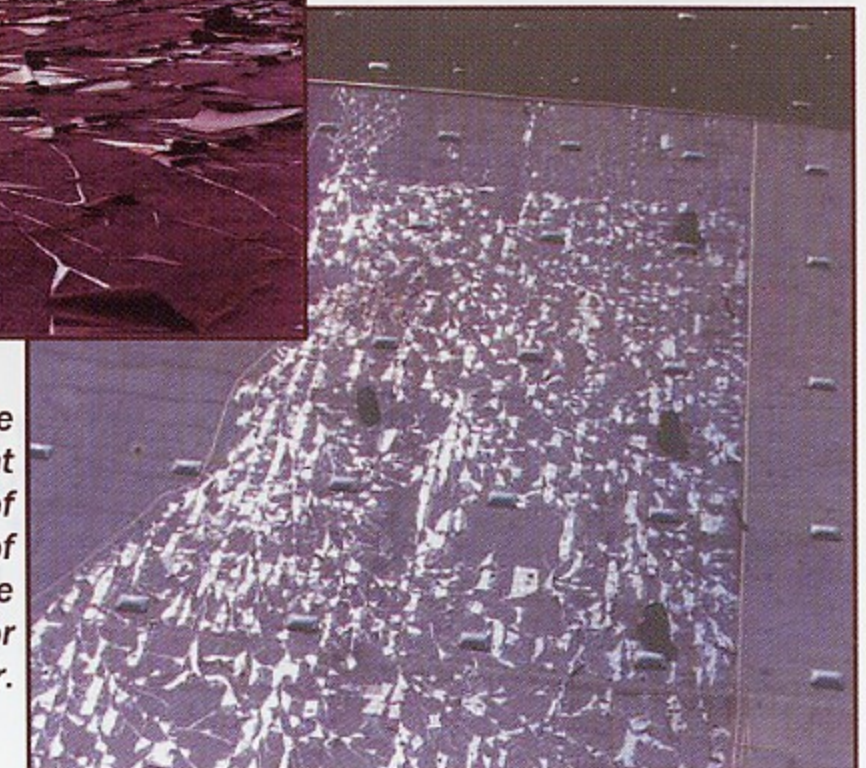
It is much easier to document a loss for adjustment purposes than it is for subrogation purposes. A few photographs confirming the damage is simply nowhere near enough. It is important to photograph damage from every conceivable angle. Videotape is also helpful as it provides an additional perspective. Also document interior damage as it is much more demonstrative than repair receipts.



Surrounding Conditions—It is also important to document the condition of surrounding land and buildings subsequent to a loss involving a meteorological event. For example, if the roof on only one department store at a mall blows off in a windstorm, photographs and videotape of other nearby buildings in an undamaged condition is useful for comparison purposes. Also, stories about the magnitude of a storm become exaggerated over time. Documenting surrounding conditions will provide an accurate picture of the storm's magnitude.



Both roofs experienced the same hail storm, but only the one on the right was damaged. How could that be?



These photographs provide dramatically different perspectives of the same roof damage. Obviously, the use of both photographs is more demonstrative than simply one or the other.

3. Preserve Evidence

Simply stating that a roof should not have failed is not enough to obtain a successful subrogation recovery. To prevail, it is necessary to *prove* that the roof should not have failed. This usually requires the careful preservation of relevant evidence.

Who? Hire a qualified roofing consultant to preserve evidence. Roofing consultants are familiar with the procedures necessary to preserve roofing evidence. For example, in evaluating the condition of an aged PVC single-ply membrane, it is important to collect and test samples of both field membrane and unexposed lap membrane. Inexperienced consultants would likely fail to preserve the latter and lose this valuable comparison technique.



Ponding water obviously caused this collapse, but why did the water pond?

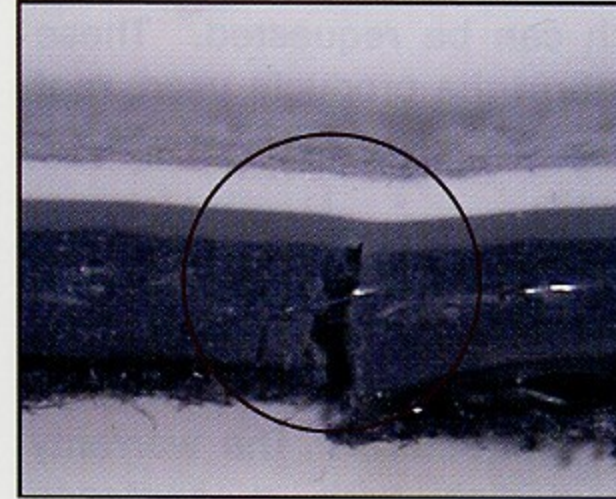
Unfortunately, almost anyone can “hang out their shingle” and call themselves a roofing consultant. Be certain to look for a Registered Roof Consultant recognized by the Roof Consultant’s Institute (“RCI”). Many architects and engineers are also knowledgeable about commercial roofing. Find one who specializes in the roof consulting area.

Unless absolutely necessary, never collect evidence yourself. Typically, the subrogation action will be pursued in the name of the insured. This usually keeps evidence of property insurance away from the jury. Having an adjuster testify concerning sampling procedures introduces evidence of property insurance.

What? The nature of the evidence to be preserved depends on the nature of the loss.

For *product defect losses*, preservation of roofing samples is critical. It will be necessary to test the roofing product to evaluate its condition and determine whether a defect in the product contributed to the loss. For example, a roofing tile may have an inadequate breaking strength to withstand high winds. Testing can be conducted to evaluate this strength.

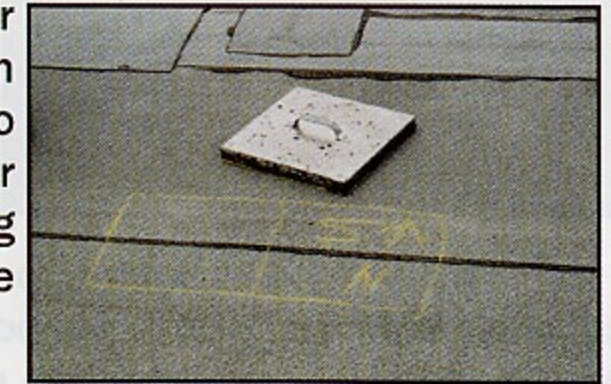
For *design and construction defect losses*, relevant evidence comes in many forms. A roofing tile may blow-off in high winds due to the use of improper fasteners. In such a case, preservation of a large number of the improper fasteners is very important. Similarly, preserving evidence documenting improperly sized drainage piping is important in a roof collapse loss caused by inadequate drainage. If a membrane is poorly adhered, preserve numerous examples of poor adhesion. As a general rule, preserve as much evidence as possible demonstrating the cause of the loss.



Hail damage to this PVC membrane can only be seen through microscopic examination. Over time, the crack will move through the entire membrane and allow water into the building.

Lastly, remember that it is easy to preserve evidence now and throw it away at a later date. You can bet the defendant will argue that the “key piece of evidence” was whatever you did not preserve. To avoid this argument, save as much as possible. The destruction of evidence, referred to as “spoliation”, is a hot topic in subrogation cases. Preserve as much evidence as possible to avoid being labeled a “spoliator”.

How? The manner in which evidence is collected is as important as preserving sufficient evidence. There is no reason an adequate number of samples can’t be taken. Remember also, the opposing side will want a portion of any samples taken. It is good practice to collect two adjoining samples whenever possible. Also document the sampling procedure, including noting locations where samples are taken.



A qualified consultant will be familiar with proper roof sampling procedures and any industry standards concerning such procedures. Follow these standards as closely as possible. Also carefully document the sampling process.

Remember to collect an identical sample for the opposing party.

Once the evidence is preserved, it will need to be sent to a laboratory for testing and analysis. Be certain to use a laboratory familiar with the standards and procedures for testing roof samples.

4. Collect Other Information

Most of the information needed to investigate subrogation potential comes from places nowhere near the roof itself.

Construction Documentation—For whatever reason, few building owners keep good roofing files. But, such records are very important. They can usually be found somewhere in an old file drawer or off-site storage facility. If unavailable, the project architect, roofing consultant, or roofing contractor may have files which can be requested. These documents are important as they often confirm the products used, roof design, and manner of construction.



Roof Warranties—Most commercial roof installations are accompanied by a written warranty issued by the roof system manufacturer. The warranty typically begins with a sentence stating that it covers leaks caused by material defects or installation for a period between 10 and 20 years. The rest of the document sets forth paragraphs of boilerplate language intended to protect the manufacturer if anything really bad goes wrong. Often, the manufacturer's best defense is its written warranty (see page 20).

Many roofing contractors also typically issue written warranties covering their work for a period of one or two years. These warranties are usually less restrictive than manufacturer warranties.

Videotape/Photographs—It's amazing how many people love to take photographs and videotape of hail, snow, rain, and wind (and often the resulting damage). Employees and neighbors may have videotape showing the severity of a storm. Eyewitness accounts of damage are also helpful. Also ask if the building has surveillance cameras. These cameras have been used to measure hail size, rain duration, and, surprisingly, even watch a roof collapse.

Generally Applicable Building Codes

- Western United States**
 - Uniform Building Code
 - Southeastern United States**
 - Standard Building Code
 - Northeastern United States**
 - BOCA National Building Code
- **Be certain to check with the local building official to confirm applicable code, edition, and any local amendments.

Code Information—Building codes contain extensive sections dealing with the design and construction of commercial roofing systems. Applicable codes should be analyzed to ensure proper compliance. Identification of code violations is very helpful during litigation.

Obtain the code from the time of construction. Remember, don't assume that the 1991 Uniform Building Code applies to 1992 construction. Many municipalities are several years behind in adopting the revised national codes. Call the local building official and ask.

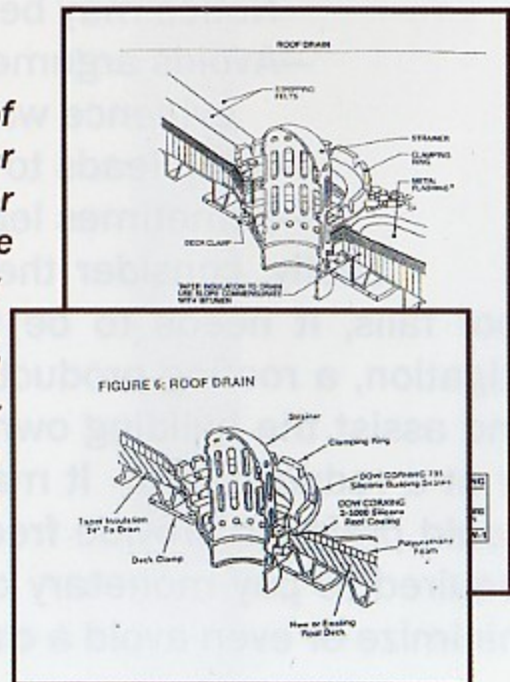
Using the 1997 Uniform Building Code as an example, the following sections are often relevant in roofing related losses:

- Chapter 1 Sec. 106-
- Chapter 15-
- Chapter 15 Appendix-
- Chapter 16 Division I-
- Chapter 16 Division II-
- Chapter 16 Division III-
- UBC Standard 15-6

- Permits
- Roofing and Roof Structures
- Reroofing
- General Design Requirements
- Snow Loads
- Wind Design
- Modified Bitumen, Thermoplastic and Thermoset Membranes Used for Roof Coverings



This elevated roof drain required over four inches of water accumulation before it became fully operational. Industry and manufacturer literature confirm the installation error.




Meteorological Data—The amount of rain, depth of snow, hail size, and wind speed are always disputed in roofing losses. Fortunately, reliable weather data is available for most storms. The best source for this information is the National Weather Service. Information is available either from a local office or the National Climatic Data Center (“NCDC”). The NCDC publishes “Storm Data”, a monthly summary of all major meteorological events in the United States. Local television stations also have data collected by their neighborhood weather watchers. Others who collect meteorological data include local government agencies, flood control services, and schools. If all of these sources fail, forensic meteorologists can use NEXRAD and other high-tech radar information to estimate meteorological conditions. This information is often surprisingly reliable.

5. Provide Notice

A final step in the initial loss investigation stage is to provide notice to the potential defendant. Some argue that the first time notice should be given is when the defendant is served with the lawsuit. Conversely, there are a number of good reasons to provide the defendant with prompt notice:

- Notice may be required by a written warranty.
- Avoids argument that improper or inadequate evidence was preserved.
- Often leads to early exchange of relevant information.
- Sometimes leads to prompt resolution.

Lastly, consider the possibility of a pre-suit resolution. When a roof fails, it needs to be fixed. Sometimes, as a means of avoiding litigation, a roofing product manufacturer or contractor will step forward and assist the building owner with the repair effort either free of charge or at a reduced cost. It makes sense that a manufacturer or contractor would prefer to provide free roofing materials or services rather than be required to pay monetary damages. This allows the property insurer to minimize or even avoid a claim by its insured.



**WEATHER DATA
ON THE INTERNET**

National Climatic Data Center
—www4.ncdc.noaa.gov

National Weather Service
—www.nws.noaa.gov

The Weather Channel
—www.weather.com

Common Issues to Look for in Different Types of Commercial Roofing Losses

Wind Blow-Off

When investigating and evaluating subrogation potential for a wind blow-off loss, always look for and consider the following issues:

- **Determine applicable wind zone**—all roofs must be designed to withstand the forces associated with a certain wind speed (typically 70 mph, but up to 120 mph in coastal areas).
- **Review Manufacturer Specifications**—many manufacturers have special installation rules for high-wind areas.
- **Determine Actual Failure Point**—identify where the roof came apart (membrane from insulation, insulation from deck, deck from structure, reroof from original roof).
- **Review Specifications**—some roof designers specify special wind-uplift requirements which may not have been met.
- **Evaluate Wind Speeds**—determine if wind speeds exceeded design and code criteria.
- **Special Perimeter Requirements**—uplift forces are usually greatest along the building perimeter; review if special attachment procedures were followed.
- **Review Written Warranties**—most manufacturer warranties exclude damage resulting from hurricane strength winds.

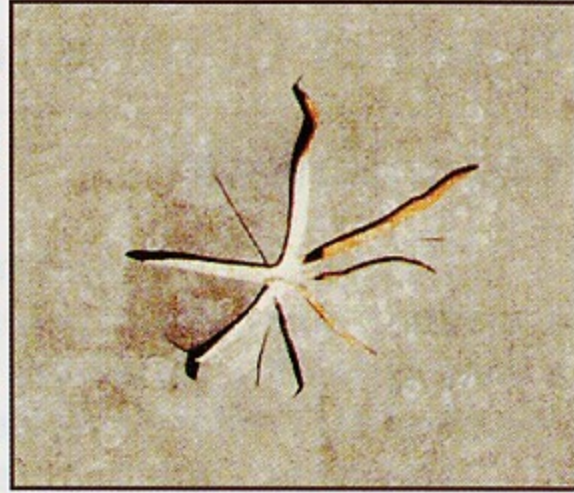


Typical Losses

- **Failure of Mechanically-Fastened Single Ply**—look for an inadequate number of fasteners along the edge of the membrane; also look for fasteners which have pulled out of the substrate.
- **Clay Tile Blow-Off**—clay tiles will lift at the bottom if not adequately secured; look for absence of wind clips, improper types of nails or screws, inadequate breaking strength, and improper substrate (battens or plywood) attachment.
- **Inadequate Adhesion of “Fully-Adhered” Membrane**—some single-ply membranes are adhered to the insulation below; poor adhesion will allow the membrane to blow-off.
- **Inadequate Ballast**—some membranes are held down under the weight of ballast; insufficient ballast allows a membrane to billow.

Hail Damage

When investigating and evaluating subrogation potential for a hail loss, always look for and consider the following issues:



- **Determine Hail Size**—there is no reason a commercial roofing product should be damaged by small to moderate hail; inspect roof-top equipment for a preliminary measure of hail size.
- **Determine Outdoor Temperature**—cold weather effects the ability of many single-ply membranes to withstand the force of hail; cold weather accompanied by light rain will cool a membrane surface and render it more susceptible to hail damage.
- **Unobservable Damage**—hail damage is often only visible within or below the roof surface; single-ply membranes can show fractures first at the bottom of the sheet; built-up roofs may be damaged only in the interply layers.
- **Evaluate Condition of Membrane**—most hail damage to single-ply membranes is caused by the premature deterioration of the product; many membranes harden and embrittle over time, rendering them more susceptible to damage; take samples of exposed field and unexposed lap membrane to measure the extent to which the physical properties of the membrane have changed over time.
- **Review Written Warranties**—some manufacturers exclude damage caused by hail; poorly worded provisions can often be avoided.
- **Adjacent Roofs**—if the hail was “soo big”, then why weren’t adjacent roofs also damaged; document the absence of nearby damage.

Typical Losses

- **Hail Damage to Thermoplastic Membrane**—thermoplastic (PVC) membranes tend to harden over time; look for significant changes in physical properties; evaluate the effect of cold weather.
- **Hail Damage to Built-Up Roof**—improper application or inadequate amount of aggregate material; aggregate can be preserved and weighed.
- **Hail Damage to Polyurethane Foam Roof**—lower density of foam results in less compressive strength and greater susceptibility to impact.

Roof Collapse

When investigating and evaluating subrogation potential for a roof collapse, always look for and consider the following issues:



- **Cause of the Collapse**—not all roof collapses are caused by inadequate roof drainage; along with your investigation of roof drainage, be certain to engage a qualified structural engineer to evaluate the design and construction of the roof structure itself.
- **Number and Size of Roof Drains**—building and plumbing codes provide guidelines for determining the number and size of drains required to remove water from the roof.
- **Size of Drain Piping**—five inch drains are of little value if they flow into three inch drain piping; look below the roof surface and follow the drain piping to the ground.
- **Roof Slope**—building codes require a 1/4 inch per foot slope for most roofs; inadequate slope will cause ponding water; look also to ensure that the roof is sloped to the drains; drains don’t help much if the water can’t get to them.
- **Overflow Drains/Wall Scuppers**—most building codes require a secondary roof drainage system piped independently from the primary drains; look for overflow drains on the roof and scuppers in the parapet walls.
- **Amount/Intensity of Rain**—rain amount and intensity should be evaluated to determine if it exceeded design parameters; adequate drainage to remove four inches of rain in an hour is a common design requirement.
- **Effect of Adjacent Roofs**—many designers fail to account for the effect of adjacent roofs, causing water to flow onto a lower roof.
- **Dead Load**—a roof may be an accident waiting to happen due to age, weight of underlying roofing materials, mechanical equipment, or wet insulation.

Typical Losses

- **Collapse Caused by Poorly Designed Drainage System**—some roofing contractors like to play engineer in performing reroofing projects; evaluate any changes to an existing drainage system resulting from a reroofing project.
- **Collapse Caused By Absence of Overflow Scuppers**—with a parapet wall, the absence of overflow scuppers will create a pooling effect.

Cold Temperature

When investigating and evaluating subrogation potential for a temperature related loss, always look for and consider the following issues:

- **Type of Roofing Product**—some roofing products are more susceptible to failure in cold temperatures; these products will split in very cold temperatures.
- **Age of Roof**—all roofing products deteriorate over time, some faster than others; a common problem with many aged roofing products is their inability to perform under cold weather conditions.



Typical Loss

- **Shattering of Aged PVC Membrane**—older unreinforced PVC membranes shatter during cold weather; if it rains, the building interior is at considerable risk.

Fire

When investigating and evaluating subrogation potential for a roofing fire loss, always look for and consider the following issues:

- **Product Being Installed**—what roofing product was being installed and did installation require use of a torch.
- **Origin of Fire**—did the fire begin above or below the roof surface.
- **Safety Procedures Followed**—did the roofing contractor follow generally accepted industry safety standards (extinguishers on roof, fire watch, avoid interior combustibles, employee training, etc.).
- **Roof Construction**—what were the other components of the roof structure and did they meet applicable fire safety standards.



Typical Loss

- **Fire Caused by Torch-Applied Modified Bitumen Membrane**—roofing contractor's failure to properly train personnel and follow required safety procedures allowed hot membrane asphalt to drip into building attic, causing smoldering fire which destroyed building.

Potential Theories of Recovery

Theories of recovery available in the typical roofing subrogation matter are as follows:

Breach of Contract—Most commercial building owners have written contracts with the roofing contractor, general contractor, and project designer (architect, engineer, or roofing consultant). The terms of these contracts usually provide remedies to the building owner in the event the work is not performed satisfactorily. For example, a contract might require that the roof installation be performed in a workmanlike manner. A tile roof that blows off due to the use of nails instead of screws violates such a provision and supports a breach of contract claim.

Breach of Warranty—Warranties may be express, such as a written warranty issued by a material manufacturer, or implied by law, such as an implied warranty of suitability. Express warranties also can arise from statements made in connection with a project. For example, a statement from the roofing contractor in a bid letter that “this roof will never have to be replaced” arguably creates an express warranty.

Negligence—Negligence is the breach of a recognized duty to another which causes damages. One who sells roofing materials or is involved in a roof installation typically owes a duty to the building owner to, stated simply, provide a good roof. Negligence claims are available despite the absence of a written contract. For example, a building owner can sue a material manufacturer for supplying a bad product even though the building owner bought the material from the roofing contractor.

Products Liability—Products liability is based on the premise that manufacturers should make safe products. Some states recognize the use of products liability theories in the construction context. To prevail, a building owner must prove that the product is both defective (either in design, manufacture, or marketing) and unreasonably dangerous.

Uniform Commercial Code—The “UCC” provides additional implied warranties and other remedies in situations involving the sale of goods. UCC-based theories of recovery may be available against material manufacturers. They are typically not available against service providers.

Potential Defendants

Depending on the facts, there are six categories of potential defendants in the typical roofing subrogation matter.

Roofing Contractor—The roofing contractor will typically be responsible for any installation defects. Liability may also arise if provided for in the contract and written warranty documents. The most notable problem with pursuing claims against roofing contractors is that they are often out of business by the time a roof fails, and even if still around, usually lack sufficient insurance to respond to a large loss.

General Contractor—Depending on the nature of the project, a general contractor may also have liability. For new construction, the general contractor is typically responsible for the work of its subcontractors. It may also have independent liability as provided for in the contract documents. One major problem with suing general contractors is that their contracts with the building owner often contain waivers of subrogation and other bars to recovery (beware of AIA forms).

Architects/Engineers—The project architect or engineer will have primary responsibility for any design defects. Some architects have little experience in commercial roofing construction and their specifications are indicative of this fact. Like the general contractor, they often are protected by waivers of subrogation and other provisions in the contract documents.

Roofing Consultants—In many projects a roofing consultant takes the place of the architect or engineer in designing the roofing system. Many are also involved in product selection and inspection of the work in progress. One area of controversy is whether roofing consultants without architecture or engineering licenses can perform roofing design work. This is an area of potential liability in the event of a design defect.

Material Manufacturers—Most commercial roofing systems are sold by manufacturers directly to roofing contractors who, in turn, include the cost of the materials in their bid to the building owner. The manufacturer then issues a written warranty at the end of the project. Claims are often available against material manufacturers for defects in their products or for providing inadequate installation guidelines.

Common Issues and Defenses

These eight issues are almost guaranteed to arise in any subrogation action involving commercial roofing. Consider them in the initial evaluation phase to avoid surprises in subsequent litigation.

Waivers of Subrogation Construction contracts and commercial leases often contain waivers of subrogation. A waiver of subrogation clause typically provides that the parties to the contract waive claims against one another to the extent the damage is covered by property insurance. The enforceability of waivers of subrogation vary from state to state. As a general rule, a waiver of subrogation is a major obstacle to recovery.

HINT: Carefully read the terms of the waiver of subrogation. For example, waivers of subrogation clauses found in construction contracts often apply only to “the work”; that is, the roof itself being constructed. Claims for damage to contents, inventory, and other property might not be barred.

“The Law is a Sort of Hocus-Pocus Science”

Charles Macklin

Contractual Disclaimers Roofing contracts vary from simple single page purchase orders to complex, lengthy forms. The longer the contract, the more likely it is to contain disclaimers intended to protect the seller of the good or service.

Like waivers of subrogation, the enforceability of contractual disclaimers varies from state to state and depending on the situation involved. Courts are more likely to enforce such disclaimers in a commercial setting if it appears the contract was “bargained for” by the parties (as opposed to a pre-printed form). Disclaimers will not be enforced when they are not conspicuous (which means they are so small and hidden that they cannot be read without the use of a magnifying glass) OR, in some circumstances, just simply unfair.

HINT: Disclaimers can usually only be enforced by the parties to the contract. Even if claims against the roofing contractor are barred by the contract, an action might still be available against the material manufacturer.

Warranty Disclaimers Warranty disclaimers serve two purposes—to protect building owners from leaks and to protect product manufacturers from about everything else. Roofing warranties are usually stuffed full of disclaimers—including waivers of damage caused by meteorological events, waivers of consequential damages, and waivers of remedies. They also usually contain strict notice provisions and arbitration clauses.

Like contractual disclaimers, the language of the warranty must be closely scrutinized.

HINT: Many warranties exclude damage “caused by natural disasters, including but not limited to hailstorms and high winds”. Questions to ask include: *Was the damage caused by the hailstorm or a product defect? Is a hailstorm producing pea sized hail stones a “natural disaster”? What actually does “high winds” mean?*

HINT: Warranties are only binding on the parties to the agreement. A roofing contractor cannot typically avail himself of the protection provided by a manufacturer’s warranty.

HINT: Neither warranties nor contractual provisions can be used to change building code requirements. If a code provision requires roofs to withstand wind speeds of 110 mph, a manufacturer involved in the roof design should not be able to rely on its warranty provision of only 50 mph to escape liability for a negligence claim.

Economic Loss Doctrine The economic loss doctrine was originally intended to limit commercial parties to the terms of their contract in the event of failed performance expectations. As an example, the economic loss doctrine prevented a turbine owner from suing a manufacturer for negligence if the turbine simply quit working after only a couple of years. The doctrine required the parties to look to the terms of their contract to determine their rights.

Courts have recently applied the economic loss doctrine to a broad spectrum of situations. Some courts have held that the doctrine precludes claims for interior water damage resulting from a roof blow-off. Other courts reject this position and hold that the doctrine only bars claims for damage to the roof itself. Suffice it to say, be certain to check the applicability of the doctrine before pursuing an expensive subrogation action.

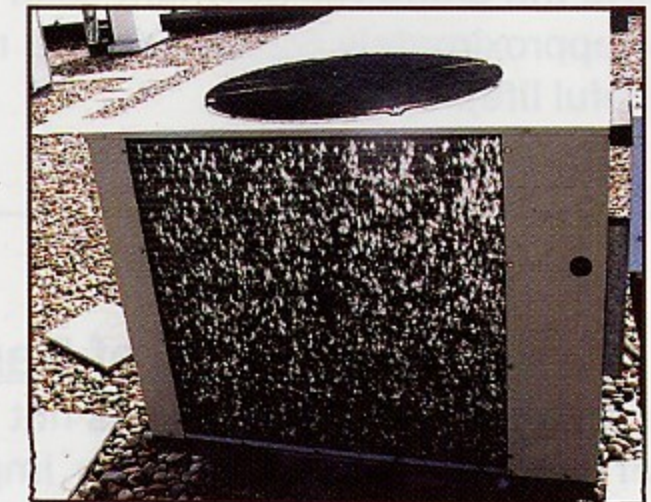
Act of God Most roofing subrogation cases begin with the contractor or manufacturer citing the act of god defense, calling the hail, wind, or snow storm the “storm of the century”. This is not enough under the law to invoke the act of god defense. The definition used by a Missouri court is typical:

“A defense due to an act of nature (often referred to as an ‘act of God’) is only available where it is an event in nature so extraordinary that the history of climatic variations in the locality affords no reasonable warning of their coming and is not humanized through the participation of man.”

In other words, the event is not an act of god if it could have been reasonably anticipated and guarded against. Showing that the failure could have been prevented and that the storm was rare but not unprecedented is usually sufficient.

HINT: Historical weather data can usually be used to prove that, for example, 70 mph winds or 1 inch hail occurs at a particular location on a fairly frequent basis.

HINT: Qualified meteorologists can assist in modeling storms based on NEXRAD radar data even when actual measurements are unavailable.



The small dents in the screens of this HVAC unit confirm that the hail was fairly small.

Statute of Repose Statutes of repose provide that no claim can be brought relating to defects involving the design or construction of a building after a certain period of time. The usual statute of repose is 10 years from the date the work was performed (be certain to check, as repose periods vary anywhere from 5 to 15 years). As an example, the Texas statute of repose is 10 years. If a roof installed in 1989 blows off in 2000, the statute of repose would bar any claims for improper design and installation.

HINT: Many statutes of repose only apply to contractors and design professionals, but not to material suppliers. Assuming a 10 year statute of repose, claims involving a 13 year old roof might still be available against the roofing product manufacturer.

Measure of Damages Most commercial property insurance policies pay the cost to repair or replace a damaged roof without regard to market value. However, the law of most states only allows for the recovery of the market value of a damaged roof on the date of the loss.

This raises the difficult issue of determining the market value of an aged roof. Usually, it can be determined by taking the cost to replace the roof pro rated over its anticipated useful life. But, unfortunately, there is no agreement in the roofing industry as to how long a roof should last. A manufacturer will tell you in litigation that the life of a roof was the term of the 10 year warranty. Conversely, the building owner will argue that 30 years of use was expected. A good benchmark is 15-20 years.

As an example, an 8 year old roof blows off in a windstorm. Cost to replace the 100,000 square foot roof is \$400,000. The property insurer pays the entire replacement cost. Many states will only allow the recovery of approximately \$240,000 (the remaining 60% of a 20 year anticipated useful life).

Recoverability of Damages There is no reason to pursue a subrogation action if there is not a pot of money to be recovered at the end of the day. Therefore, it is important to consider the likelihood that a favorable judgment can be collected from the responsible party. Three issues should be considered.

Is the potential defendant still in business? A simple corporate background search will determine whether the defendant is still around. If not, check to see if it merged with another company or possibly had its assets and liabilities purchased (common with material manufacturers).

Does the defendant have liability insurance? A defendant without insurance is not an attractive target. Also, be certain to look to the liability insurance applicable on the date of the loss and not the date of construction. Standard commercial general liability insurance policies only apply if there is an occurrence during the policy period. In construction, the occurrence is usually the roof failure and not roof installation.

Is there coverage for the damages? Liability policies typically exclude coverage for faulty workmanship. If only the work performed by the contractor failed, there may not be coverage. The same is true for material defects without consequential damages.

Sources of Additional Information

Numerous sources are available from which additional information can be obtained concerning roofing products, proper design, proper installation, code requirements, common problems, and virtually any other issue. The following are particularly helpful.



The NRCA has numerous publications addressing roof design, installation, and maintenance. Its magazine, Professional Roofing, is an excellent source of information.
Phone: 847/299-9070
Internet: www.nrca.net
www.professionalroofing.net

Factory Mutual Research



Specifications often require the use of "Factory Mutual Research Approved" products. Factory Mutual Research publishes an Approval Guide listing roofing and other products which have met certain established criteria.
Phone: 781/762-4300
Internet: www.fmglobal.com



The Roof Consultants Institute (RCI) provides referrals to roofing consultants and has a monthly magazine.

Phone: 919-859-0742
Internet: www.rci-online.org



The Roofing Industry Educational Institute (RIEI) offers books, pamphlets, and educational courses addressing most commercial roofing issues.
Phone: 303-790-720
Internet: www.riei.org

Other Sources of Information

- Single-Ply Roofing Institute
- ICBO (Int'l Conference of Building Officials)
- Asphalt Roofing Manufacturers Association
- ASTM (American Society of Testing and Materials)
- American Institute of Architects
- Underwriters Laboratories
- Various State Contractor's Associations
- Product Manufacturers (look to websites)

KEY ISSUES CHECKLIST

The following checklist identifies twelve key issues which should be addressed in investigating and evaluating subrogation potential for losses involving commercial roofing.

- Type of Roofing Product - _____
- Manufacturer - _____
- Age - _____
- Photographs/Video Taken - _____
- Evidence Preserved - _____
- Warranty Located/Key Terms - _____
- Orig. Constr. Documents Found - _____
- Statute of Repose Checked - _____
- Document Nearby Damage - _____
- Provide Required Notice - _____
- Meteorological Data Obtained - _____
- Suspected Cause Determined - _____

*Questions? Need Assistance? Need Additional Copies?
Feel Free to Contact Either Of Us*

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