



# THE FORENSIC ENGINEERING REPORT

I-ENG-A® [IN-JUH]

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## HOW TO HANDLE AN ANGRY INSURED

BY JAMES M. "MIKE" SURRATT, PE, [CAROLINA INVESTIGATIVE ENGINEERS, PLLC](#)

A few years ago, I received an assignment involving an electrical issue. Little did I know that this difficult investigation would be further complicated by the fact that I would be dealing with an angry insured. I was not made aware of the history of the claim nor was I warned of a potential angry insured.

Having embarked on the investigation and driving 105 miles to the site, I arrived at the large residential facility which was located in the center of a large natural setting. The meeting started smoothly (but soon was to turn testy), as I introduced myself and my role in the matter to the insured. He was initially very friendly and told me the burned switch (the apparent source of the loss) was upstairs.

I saw the switch and said, "Yes the switch has definitely been burned. It controls your landscape lighting system. Do you have invoice information

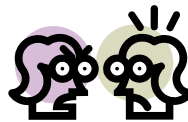
showing the installation last year?" I explained I needed to consider the installation as a possible factor in the loss.

He turned away and threw both hands in the air in a gesture and went to his desk. He pulled out a drawer, grabbing two inches of paper in two folders, and said, "I can let you copy, *but you can't take it!*"

He fanned through the papers; all I could see were bulk charges and no details. He jerked the folders away and quickly threw them into a drawer. "I hate insurance companies; don't pay anything, they hassle you all the way."

I asked myself, "How am I going to copy a two inch high mass of paper with this attitude? He has now put me in a disadvantage; I'll have to confront him. Is he doing this on purpose?"

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## FROZEN PIPES

BY KEVIN POWER, PE, [KPE CONSULTING ENGINEERS, INC.](#)

Water is unlike every other liquid in the world, because it expands when it freezes. It is this water expansion which causes major problems for home and business owners when it freezes in pipes. As freezing water expands, it generates enough pressure to burst pipes & fixtures. When frozen pipes thaw, flooding can result and cause extensive damage.

Freezing can occur in any water pipe exposed to temperatures of 32°F or below. However, freezing is less likely in pipes when water is flowing. Pipes in attics, crawl spaces and unheated rooms are particularly susceptible to freezing. Pipes in exterior walls can also freeze during severely cold weather. This problem has become more common in homes where the thermostat has been set back to conserve energy.

Pipe and fixture freezing is also a problem in unheated homes that have not been winterized.

Problems may also occur in unoccupied homes, such as model homes or vacation homes, which experience a power outage or heating system failure.

Freezing problems are likely in:

- pipes & fixtures that have previously frozen.
- exposed pipes in unheated rooms, attics, or crawl spaces.
- pipes routed in exterior walls.



Sometimes the cause of the frozen pipes is obvious. Other times when breaks occur in interior areas not typically subject to freezing temperatures, further investigation is needed to determine the cause. In one case, in an unoccupied house there was a malfunction in the furnace causing it to shut down over

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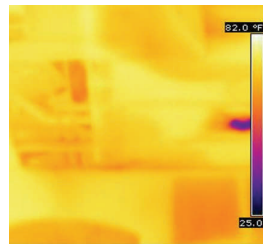


## FROZEN PIPES (CONTINUED)

(Continued from page 1)

a weekend where temperatures reached well below freezing. This caused several pipe breaks throughout the house, as well as broken fixtures and supply fittings (photos on page 1).

In another case, a frozen pipe burst in an interior space between floors which should have been well heated. Using Infrared Thermography, we were able to discover the path where cold air was entering the space between the floors from the outside. The photo above to the right shows 25° F air in the space flowing out of a light fixture. The photos on the right show the exterior of the room where the cold air is entering the space.



This was something which required immediate action to remedy, as the freeze would have reoccurred if the cause was not discovered. In cases such as these where KPE and I-ENG-A's expertise can help adjusters pinpoint the cause of these frozen pipes and prevent similar future claims.

For more information on KPE, please visit our website [www.kpe-inc.com](http://www.kpe-inc.com).

Article By: Kevin C. Power, PE, CEM, GBE

KPE-Consulting Engineers, Inc., I-ENG-A Member Nebraska

## ICE DAMMING CONDITIONS BY JAMES A. SKARET, PE

Ice Damming is a condition that develops on a roof when snow melts and runoff cannot evacuate the roof before the runoff water re-freezes causing ice to form along the edge of the roof. Causes for ice damming are low roof slope, restrictions to the steady flow of runoff such as plugged gutters and downspouts, and excessive heat loss through the roof deck resulting in melting of snow during periods of sub-freezing temperature.

**The International Building Code and International Residential Code call for the installation of a self-adhering ice dam membrane extending from the eave's edge to at least 24" inside the exterior wall line of the building.**

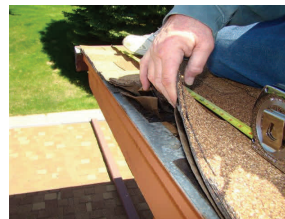
Depending on roof slope and the height of an ice dam, backup of runoff water may extend up the slope of an unprotected roof beyond the 1<sup>st</sup> overlapping seam of ordinary roofing paper resulting in the penetration of the water to the surface of the roof deck material.

During the winter of 2010 - 2011 a 23 building condominium complex in our city experienced extensive ice damming with many units incurring interior water damage. The roofs of all buildings had been re-shingled in 2006. The condominium association wanted to determine the cause of the ice damming, if they had a valid claim against the roofing contractor as well as the recommended solution to the ice damming problem.

Initially ice damming was documented during ground-level inspections during the winter. An investigation to determine causation was conducted in the spring of 2011. It was discovered that the contractor had agreed to apply a 6' wide



Ice Damming Problems



Inspect for Ice Dam Membrane



Plugged Attic Intake Vents



Evidence of Condensation

ice dam membrane but had only applied a 3' wide layer. All buildings had at least 24" wide eaves. Therefore, the ice dam membrane extended a maximum of 12" inside the exterior wall line.

From inspection of the roofs and attics, it was apparent that most units lacked adequate attic ventilation. Inspection of attics revealed moisture stains and discoloration of wood roof structure members indicating there was a history of condensation on the cold roof deck and the migration of water along the sloping top chord of the roof trusses.

It was concluded that the primary cause of ice damming was the formation of condensate on the cold roof deck due to inadequate attic ventilation. In the winter, condensate freezes. When the frozen condensate (frost) thawed, moisture migrated along the roof deck and/or top chord of the roof truss to the outer area of the attic where the moisture dripped from the sloping roof structure on to the attic insulation. Eventually, dampened insulation resulted in excessive heat loss through the attic and roof deck. The heat loss caused snow on the roof to melt during periods of sub-freezing temperature. The melted snow re-froze before runoff water could evacuate the roof causing the formation of an ice dam. Over several winter months the ice dam grew and eventually water backed up beyond the limits of the ice dam membrane protection.

If the ice dam membrane protection had been extended to the limits proposed by the contractor and/or required by the building code, the protection would have covered all seams in the plywood decking beyond the 1<sup>st</sup> longitudinal seam and it is likely the interior water damage would have been avoided. The solution to the client's problem was not only the extension of ice dam membrane protection, but the improvement of attic ventilation.

By James A. Skaret, I-ENG-A—North Dakota By EngTech, Inc.



## HOW TO HANDLE AN ANGRY INSURED (CONTINUED)

BY: JAMES M "MIKE" SURRETT, PE, CAROLINA INVESTIGATIVE ENGINEERS, PLLC

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We went outside to look at the buried, and failed, landscape lights. He said, "I don't know where they are, they put this stuff in, all I do is turn on the switch." He received a phone call and came back out. "I've got an emergency surgery left over from last week; you will have to get with my landscaper to find them."

He left me alone in two acres of pine needles, mulch, water gardens, and 56 little dead lights.

In this business, it's tough finding an insured easy to get along with. Many times you have contention, disagreement, outright anger, or passive aggressive behavior.

This insured was pleasant but ready to argue once we focused on the loss. Since he abandoned me, I wasn't able to diffuse the tension; but, could I have been successful otherwise?

Consider the disagreeable attitude he showed. Was he showing behavior for an argument or a disagreement? Dale Carnegie says there is a difference<sup>1</sup>. Arguments are like battles, each party firing shots at each other, producing nothing; disagreements, however, are conversations back and forth without accusations and emotional overtones. In my situation, he was *arguing* to an unseen non-present entity; I just listened.

Generally, there are two things that the investigator should do to reduce the chances of a conflict during the investigative process. First, the investigator should state that he/she is a NEUTRAL party (as part of introduction). This will help in reducing suspicion that you will offer biased opinions. Secondly, the investigator should never share causal thoughts or opinions while at the site (unless it is related to a health and safety issue). You should hold all of your opinions until you are certain about them and until you have had the chance to inform your client. Saying something on site that may not be exactly correct can create major problems, down the road.

Additionally, here are some techniques written by some of the best management consultants of today to diffuse argumentative or angry behavior and make progress.

- **Heating up from a personal attack?** A personal attack makes you defensive; you will feel yourself getting hot. Some will even start out with an attack, such as a cheap insult. Some have carefully, sub-consciously, learned to put you on the defensive giving them control. By giving in, and arguing, you have lost any possibility of progress. When you become angry, the fight and flight parts of your brain take over and your creative thinking brain becomes suspended. The *counter* to an attack is to listen. Whether in person or on the phone, listen to the insured.
- **Listen Attentively.** Listen, and let them have their say. When they pause, encourage them to continue talking, like: "Tell me more," or "Explain that again so I understand." They could have good points you missed. Gather facts and listen for key words or phrases, these are important to them and give you a discussion topic for later use. Someone may say, "I'm frustrated with you..."
- **Respond positive.** When you respond in a negative or angry way, you trigger reactions which shut down constructive thinking. Be positive, remove the personal attack and respond, "I truly understand you have become frustrated, help me help get a handle on this situation..." Also, it isn't easy to respond positively, practice over time helps. Your goal is for your problem solving brain to work clearly. Use those words or phrases you were listening for to converse with the insured. If you heard your

claimant saying, "I've worked hard for my money to own this..." you could say, "Yes, you *worked hard* for your money; I'm *working hard* to get the facts of this claim for your benefit."

- **Depersonalize the issue.** While talking, be sure to focus on the issues, not the person, or yourself. It isn't *who* is right or *who* is wrong; it's *what* is right or *what* is wrong. Depersonalization will help keep anyone from becoming defensive.
- **Find areas of agreement.** Having money as the main issue in a claim is tough. Try to steer the conversation away from money to areas where you both agree. You may say, "So far, we now *both* agree the sub-flooring of the dining room was not damaged, don't we?" Agreement is used to keep the conversation flowing and reduce conflict.
- **Promise to consider their viewpoints.** Find something they said that you didn't know about, even of minor importance. "Yes, I'll consider the other repairman's recommendations." Help the insured feel his input is being considered. At least he can't later say "I kept telling her, but she just didn't listen."
- **Recap, close, postpone.** Briefly review the discussion, and point out those areas of agreement with the new considerations. Close positively and say, "I will need a little time to reconsider our discussion with the new information you mentioned. Thank you."

Having a clear understanding and good recollection of these human factors will serve you well when dealing with a potential angry customer.

(1) Carnegie, Dale, "How to Win Friends and Influence People", Gallery (1981), 109-115

## COMEDY RELIEF CORNER

At the height of a political corruption trial, the prosecuting attorney attacked the witness.

"Isn't it true," he bellowed, "that you accepted five thousand dollars to compromise this case?"

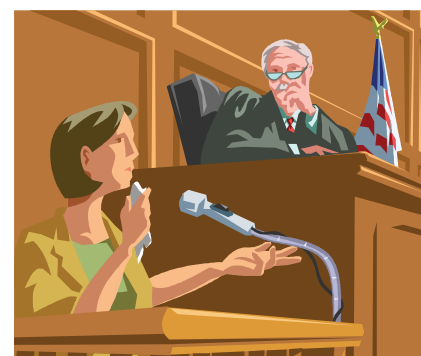
The witness stared out the window as though he hadn't heard the question.

"Isn't it true that you accepted five thousand dollars to compromise this case?" the lawyer repeated.

The witness still did not respond.

Finally, the judge leaned over and said, "Madam, please answer the question."

"Oh," the startled witness said, "I thought he was talking to you."



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- Groundwater and Water-well Contamination
- Hazardous and Solid Waste
- Management Services
- Industrial & Accident Contamination
- Lake, Stream, and Water Supplies
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- Nuclear
- Phase I - Phase V Site Assessments
- Soil and Materials Contamination
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- Superfund/CERCLA and RCRA Sites



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