

Various DRYING TECHNIQUES

We dry jobs based on IICRC 500 criteria and recommendations with Dri-Eaz, Phoenix and DrizAir Equipment. At the Advocate companies, we have been drying jobs on property insurance and flood claim sites since 2005 – over two thousand and counting.....here are about a dozen cases showing how it's done.



Surface water extraction is the first thing that **MUST** occur when there is accumulated standing flood water, whether due to flooding or plumbing losses. We want our equipment drying the air so water vapor will be below the dew point in the room or structure.

****IF YOU CAN'T GET A RESTORATION COMPANY OUT TO YOUR HOUSE DUE A NATURAL DISASTER/HURRICANE OVERWHELMING THE WHOLE REGION, AS SOON AS THE RAIN STOPS, OPEN THE WINDOWS!!****

NATURAL EQUALIZATION OF THE HUMIDITY IS CRITICAL. As all of our neighbors know who went through Hurricane Ivan and most recently Hurricane Sally, it could be days before the power comes back on.

(Advocate has some portable gas generators that insurance companies must pay for the use of based on insurance policy language found under clauses in the policy outlined in "Your Duties After A Loss.")



Using an extra large dehumidification device on a water loss with equipment located such that the dehumidifier exhaust air port is pointed directly at where the water fell to its lowest level in this finished basement. It happens to be a corner. The fan in the corner is pointed upward toward the subfloor in the kitchen above which is where the loss had additional impact – it was a dishwasher feed under high pressure with a miniscule pin leak. The homeowner hadn't been in the finished basement for two days and ultimately discovered the loss when she went to do laundry in the adjacent room.



Equipment set up to dry wall to wall carpet on the same loss as the pictures prior to and below this one.



This technique is called “floating” the carpet, done AFTER removing soggy carpet pad that has no chance of responding to any drying techniques – only specially designed carpet pad can be dried, and even then, not always.



Sometimes, setups are more complicated – like moving 500 cubic feet a minute into a ceiling cavity directly below an ice maker line leak. It could have been going on the whole week the owner was away on vacation. They didn't see the icemaker line leaking in the kitchen ; they walked into puddles in the basement when they got back.



Sunrooms that have a roofline modified due to their addition to the original home can often have building envelope breakdowns where there is insufficient or poorly applied flashing.



This is another example of 500 cubic feet a minute blown into the ceiling of the first floor due to a problem that occurred on the floor above it.



One bathroom under another was the architectural footprint for this job. There are so many uses for the DriEaz InterAir® system.



This is another Dri-Eaz InterAir system utilization case.



Sometimes the setups are much more complicated – like when there is accumulated water in the ceiling and the walls, plus on and under the hardwood. This type of a situation could occur as a result of a hurricane or when there are ice dams, like this New England loss.



This loss occurred when water entered the home through the sliding glass doors in the master bedroom and ended up in the in law apartment kitchen below it as a result of wind driven rain from a tropical storm.



Heat drying inner wall cavities. This is the Dri-Eaz InterAir wall injection system- Again.



This is two drying systems in use on the same job, supported with dehumidification from a Phoenix 200 Maxx system dehumidifier. On the floor is the DriEaz Inter-Air system using the floor mats, taped down to keep the system tight. It has a positive/negative air flow exchange when moist air is displaced under high pressure by drier ambient air, and very dry air produced by the dehu in the room. The other drying hoses are the Inject-I-Dri system in the wall. In this image they are pumping dehumidified air into the walls, and the air is leaving the inside of the wall cavities through holes we put in the plaster below the base molding line or others that were there pre-loss, either by prior removal of the baseboard or just were open in some areas during the construction of the house in the 1930's.

And last but certainly not least, if you own a home, you really ought to read this US Department of Energy directive about how daily activities add moisture to your home simply by enjoying it and living in it, let alone if you have any kind of water damage emergency. Paragraph four – wow is all one can say with those statistics.

**THIS INFORMATION IS DIRECTLY QUOTED AS IT APPEARS ON THE UNITED STATES
DEPARTMENT OF ENERGY WEBSITE****

You Must Prevent Moisture Accumulation

There is always some moisture in the air around us. An indoor relative humidity of about 50% is usually considered a healthy level because it is comfortable for humans and because many molds and mites are unlikely to thrive in that environment.

When is Moisture a Problem?

Even though you need some moisture in the air you breathe, too much moisture in your home can cause problems. When moist air touches a cold surface, some of the moisture may leave the air and become liquid, or condense. If this happens on a cold pane of window glass, you will see the water run down and collect on the window sill, where it may ruin the paint or rot the wood trim. The water may even freeze, producing frost on the inside surface of the window. If moisture condenses inside a wall, or in your attic, you will not be able to see the water, but it can cause a number of problems. For example, mold and mildew grow in moist areas, causing allergic reactions and damaging buildings. Structural wood may rot and drywall can swell (see Figure 1). If moisture gets into your insulation, the insulation will not work as well as it should, and your heating and cooling bills will increase.

How Does Moisture Come into Your Home, and How Does it Move Around Inside the Building?

The most obvious way that moisture enters your home is through rain, either falling on a leaky roof, wind-driven against a poorly-sealed wall, or collecting against (and eventually leaking through) the walls of your basement or crawlspace. Roof leaks are usually noticeable and must be repaired immediately. Rain coming through a wall may be less apparent, especially if it is a relatively small leak and the water remains inside the wall cavity. These kinds of leaks may occur around window or door frames, so it is important to replace any missing or cracked caulking. Rain seeping through the ground into your basement or crawl space may appear as damp, moldy walls or may be handled by a sump pump. In any event, you want to be sure that all rain coming from the roof, gutters, or across the landscape is directed well away from your house.

You also generate moisture when you cook, shower, water your indoor plants, use unvented space heaters, do laundry, even when you breathe. More than 99% of the water used to water plants enters the air. If you use an unvented natural gas, propane, or kerosene space heater, all the products of combustion, including water vapor, are exhausted directly into your living space. This water vapor can add up to 5 to 15 gallons of water per day to the air inside your home. If your clothes dryer is not vented to the outside, or if the outdoor vent is closed off or clogged, all that moisture will enter your living space. Just by breathing and perspiring, a typical family adds about 3 gallons of water per day to their indoor air.

Because air always contains some moisture, any air movement carries moisture with it. Did you know that your house breathes? We inhale and exhale through our noses, but your house inhales through one air pathway and exhales through another. Usually houses inhale around their bottom half and exhale around their top half. These air pathways include all available openings, both small and large. Back when homes had central fireplaces or open furnaces, the chimneys took care of most of the exhaling. Now, however, much of that job is handled by small leaks through your walls, floors, or ceilings. Remember that if any air is leaking through electrical outlets or around plumbing connections into your wall cavities, moisture is carried along the path.