

# The Ph.D. for Damage Repairers: Why an RIA Certified Restorer Can Serve You Better

By Martin L. King, CR, ASA

For the past 25 years, a program has been underway that provides advanced training for damage repair contractors and restorers. Over 500 individuals, including many of the industry's leading professionals, have completed that training. The Restoration Industry Association's (RIA) Certified Restorer (CR) certification is often called the Ph.D. of damage repair. However, many contractors—and adjusters—are not aware that this program exists.

It is true that over time, many contractors develop a respectable level of expertise in recognizing damage and prescribing remedies. Their knowledge is gained by handling losses and observing what works. Unfortunately, this type of training only goes so far. Real expertise requires an understanding of the forces that generate different types of damage and a theoretical basis for handling them. A short quiz might illustrate this difference:

## **Loss #1:**

A sofa fire produced a really smelly smoke and the residue on table tops which felt tacky. When the restoration was completed the house looked great, the contents sparkled but an odor of smoke bedeviled the occupants. What happened?

## **Loss #2:**

A can of spray paint fueled a utility room fire that reduced the furnace to a charred hulk. During the final cleanup the contractor noticed a strange condition: when the windows were washed they looked fine, but when they dried a hazy film kept returning. What was the remedy?

## **Loss #3:**

After the initial cleanup, a basement oil spill generated a pervasive odor, driving the occupants from the home. The restorer suggested deodorization with ozone. Good idea?

## **Loss #4:**

A suspected bank robber barricaded himself in a second-floor apartment and police fired tear-gas projectiles to subdue him. The subject was taken into custody, but three days later the other tenants still couldn't use their apartments. What's the answer?

## **Answers**

### **Loss #1: What happened?**

The common assumption is that smoke is characterized by its concentration as heavy, medium, or light. However, Certified Restorers learn that the character of smoke varies with the type of fire that creates it. Vigorously burning fires (oxygen-rich) produce particles that are relatively small, dry and tend to bond loosely to surfaces. Smoldering fires (oxygen-starved) produce large, sticky particles which bond tenaciously and have an extremely pungent odor. In addition, the smoke plume from smoldering fires moves slowly and is more likely to migrate into walls and other cavities. Wet smoke that is not properly treated can bleed through paints and sealers, and continue to generate odors. The distinctions of wet and dry smoke are two of the six basic types of smoke residues covered in the CR training.

## **Loss #2: What was the remedy?**

When furnaces burn, there exists the possibility that air conditioning coils were involved and released their contents. Common AC coolants contain fluorides which can combine with moisture to become hydrofluoric acid. Certified Restorers learn that one characteristic of hydrofluoric acid is the ability to etch glass. When wet, etched glass appears to be clear because water fills the surface and permits an even transmission of light. When the glass dries the etched diffraction returns, providing a hazy appearance. The haziness is not a film and cannot be removed. Replacement of the glass is the only remedy. This is best discovered early in the project rather than during the final cleanup.

## **Loss #3: Good idea?**

No, really bad idea. Fuel oil vapor can cause severe pulmonary distress in some individuals. The problem is not the odor, but the fuel oil vapor itself. Thus, a procedure that masks the odor could be dangerous. Ozone is an oxidizer. It removes odors by adding oxygen atoms to unsaturated molecules. Rust and fire are other forms of oxidation. Burning gasoline is an example of rapid oxidization. Certified Restorers understand that while the oxidizing action of ozone is unlikely to cause fuel oil to ignite, it is not going to help the situation either. Until the oil is removed, the odor of fuel oil is an important indicator of its presence.

## **Loss #4: What's the answer?**

Tear gas is designed to make humans uncomfortable to the degree that they cannot effectively function. It is formulated to persist. There are two principle types of tear gas, CN and CS, abbreviations for their long chemical names. CS is the more severely disruptive, producing copious tears, burning, and nausea. Tear gas can be removed from building interiors by applying procedures designed to neutralize its chemical components and release it from the surfaces to which it bonds. Certified Restorers learn how to apply these procedures and the theory that supports them.

## **Understanding Theory and Techniques**

In addition to perils such as these, the Certified Restorer course addresses fingerprint powder, toxic substances, protein fires, water damage, corrosion, and other forms of damage. These are not typical perils, of course, but the theory and techniques they require carry over to an even greater ability to understand and handle everyday losses. Training in different modes of damage is just one aspect of the program. CR training also includes identifying and characterizing the responses of different materials, such as marble, wood, leather, ceramics, and metals. For example, CR candidates must be able to distinguish hardwood from softwoods, and identify 10 different wood species. Similarly, they study the structure and characteristics of textile fibers and learn to identify the major fabric weaves and their responses to various forms of damage

The course is divided into sections on buildings and contents. In the building section, candidates learn relevant mechanisms of air flow and the distribution of airborne particles. They cover structural nomenclature and the characteristics of framing and roof systems, as well as heating and air systems. Individual sections cover deodorization, restoration theory, art, and electronics restoration. The Certified Restorer course concludes with an all-day written exam, for which a minimum score of 80 percent is required for certification.

The rigorous CR pre-requisite training requires that applicants possess a working knowledge of restoration before they are accepted as candidates. Three years of restoration experience are required, as well as successful completion of RIA's four-day Restoration Technician course and the RIA Contents Restoration course or equivalent training.

## Other Factors Contributing to Restoration Success

However, technical expertise is not the only component of professionalism in damage repair, and it may not be the most important consideration. The comments of property damage claimants, as well as adjusters, suggest that a firm's character and efficiency are immensely important, as demonstrated by such elemental practices as arriving on time, keeping commitments, and maintaining good communication. The CR program reinforces these qualities by imposing a set of rigorous ethical and performance standards that are unique in the industry. In addition, CR candidates agree to undergo an independent credit check and review of their employment history.

RIA's Certified Restorer certification program training can avoid such disasters as:

**"The Job That Never Ended."** This was a residential loss where the bowl of a recently-installed toilet shattered, allowing water to run for up to two days (the exact time unknown because the owners were out of town). This project was marked by several contractors and the active intervention of the owner and his public adjuster. After rancorous dispute at every stage, the project was finally completed three years after the date of loss. The cause: not one of the contractors performed a comprehensive mapping of the moisture distribution, while long periods of HVAC shutdown resulted in a seemingly endless recurrence of mold.

**"The Floor That Kept Cracking."** The kitchen had a large center island, granite counter tops, and a ceramic floor. The dishwasher overflowed and a long perpendicular crack developed in the floor tiles. The contractor replaced the plywood underlay and installed a new floor. The owner stated she heard "cracking" noises underfoot and shortly thereafter observed a new crack, identical to the first. After some grumbling, the flooring contractor took up the tile, his new underlay, and replaced a section of the plywood sub floor before reinstalling the floor as before. A few days later the crack reappeared. Neither the flooring contractor nor the insurance company were interested in a third attempt. While there is no record of how this was resolved, it was apparent that the floor was overloaded by the large island cabinet, the granite counter tops and the substantial girth of the owner. The replacement sub floor should not have been cut to fit around the cabinets, which should have been removed and the sub floor installed in full sheets with the joints properly spaced.

**"Chem -Sponge Contamination."** A typical residential furnace puff-back left a coating of soot on every exposed surface. The restoration firm's estimator told the owners their customary procedure was to clean the walls, ceilings, and furnishings with Chem-sponges. Immediately following the repairs the occupants began to experience itching and throat soreness that they claimed were caused by chemical residues left by the Chem-sponges. They demanded that the entire home be washed down and repainted. Of course, there really is no "Chem" in Chem-sponges. They are composed entirely of foam rubber. Their cleaning action is like that of a pencil eraser, except that they retain the particles in a multitude of pore-like cavities. Only on-site environmental testing and a laboratory report that confirmed the absence of irritating "chemicals" in the sponges could resolve the issue. The cause of the itching was never established.

These and similar tales point up reasons why skepticism abounds in today's restoration environment. Fears of toxicity, health effects, and incompetence are often, but not always, groundless. A higher level of knowledge and expertise, exemplified by RIA's Certified Restorer program, goes a long way in establishing confidence in damage repair. The comprehensive RIA Certification program is the most rigorous and substantial training available for this industry. It is a designation that means something.

*Martin L. King, CR, ASA, is a Restoration Industry Association technical advisor on all facets of the restoration process. He is the author of the RIA Guidelines for Fire and Smoke Damage Repair, and is the architect of and principal instructor for the Certified Restorer program.*

## RIA's Pathway to Achieving Advanced Certification

**Benefits of RIA advanced certifications include:** high level of recognition and respect within the restoration field, quality assurance for clients and the general public; recognition as experts by the insurance industry; discounts through RIA's benefits and services program; access to advanced technical knowledge in the field; and a competitive edge over the competition

Achieving RIA's advanced certifications is a stepped approach:

- » **STEP 1** Application Submission
- » **STEP 2** Completion of Pre-requisite Coursework
- » **STEP 3** Attendance of Certification School
- » **STEP 4** Certification Exam
- » **STEP 5** Formal Report and/or Research Paper
- » **STEP 6** Formal Certification
- » **STEP 7** Maintaining Certification

Once certification is achieved, Certificants enter into their three-year certification cycle. Criteria for maintaining certification includes the payment of a certification renewal fee (paid once every three years) and acquiring four continuing education credits (the equivalent of 32 contact hours) within the current 3-year cycle.

For complete details on any of RIA's advanced certification programs, contact Cynthia Mullaly, RIA's director of Education and Certification at [cmullaly@restorationindustry.org](mailto:cmullaly@restorationindustry.org) or by calling 443-878-1008.