

# Restoration Corner



Linn Griffith

## Introduction

*Restoration Corner* is an ongoing column written by Linn Griffith, a former firefighter who is now the Public Relations Director for Utah Disaster Kleenup. As firefighters, you are on the front line saving lives and protecting property. After responding to a call, you quickly ready yourself and equipment for the next emergency. Unfortunately you receive little feedback of what takes place after you leave the scene.

In each issue *Restoration Corner* will bring you updates on larger fires or disasters of interest and what took place during the restoration process. The column will also include educational information and other useful facts. We hope you will find the topics interesting and informative. We welcome your questions, comments or requests for specific subjects to be covered in future articles.

## Disaster Update-Governor's Mansion Update

On December 15, 1993, a short from an extension cord caught the Christmas tree on fire in the Governor's Mansion. The fire quickly spread up the spiral staircase ravaging everything in its path up to and including the gold dome on the third floor.

If Salt Lake City Fire Department responded to the Five-alarm fire with three ladder trucks, twelve fire engines, seventeen other fire vehicles and a total of 82 personnel. The mansion was



dedded to the state in 1037 and is registered with the Historical Society of Utah.

UDK was called to perform two phases in the restoration process, the first being content cleaning and deodorization and the second dealing with the decontamination, cleaning and deodorization of the structure.

The mansion housed not only the Governor's personal items, but also many items belonging to the state and the Historical Society of Utah. Everything was inventoried, separated, carefully boxed and readied for transportation for cleaning and evaluation.

An emergency processing plant and staging area was established at the state fairgrounds to handle the large project. During the course of the next six months, thousands of items were cleaned, decontaminated, deodorized and repaired as needed. Contents included antique furniture, crystal chandeliers, clothing and several other articles. Many of the Governor's personal items were returned, while other contents were placed in storage until the mansion is ready for occupancy.

The fire not only caused structural damage to the front entry, main stairway and dome, but also contaminated the entire structure with soot and smoke. To thoroughly clean and decontaminate the home, more than 80% of all plaster had to be removed from the inside walls, expos-

ing all of the framing materials and inaccessible cavities.

To remove the soot from ornate wood carvings and other delicate surfaces, UDK brought in a secret weapon—a Sponge-Jet Blaster. The sponge-blower shoots small particles of highly absorbent sponge material onto the contaminated surface. The velocity of the sponge impacting the surface causes the soot contaminants to transfer from the surface onto the sponge. Air pressure can also be regulated for aggressive or sensitive cleaning. Different types of sponge material can be used depending on the surface texture and the results desired.

Another unique aspect of the sponge-blower is that the sponge material can be cleaned and reused, this helps minimize waste and is better for the environment. The sponge-blower is safer than the traditional sand blasting because it is much less abrasive to the structure, produces far less dust particles and is easily cleaned up. UDK is the only restoration firm in the intermountain states with this new technology, inside **View of Restoration: Ozone . . . Eliminating Smoke and Other Odors**

One of the most common questions asked after a fire is how to get rid of the smoke odor. As you know, the smoke and soot penetrates the furniture, carpets, drapes, clothing and even between walls and other structural cavities.

Even after items have been cleaned, the odor will often remain. There are several chemicals which may help mask the smells for a period of time, but they do not actually eliminate the cause of the odors. For that reason, professional emu panics recommend ozone deodorization to oxidize the smoke odor.

So what exactly is ozone? Ozone is a form of oxygen, it is a strong cleaning, purification and oxidizing agent it reacts with organic materials to oxidize unpleasant odors. Besides eliminating odors, ozone kills airborne bacteria, yeast spores, virus, fungus, pollen, as well as mold and mildew.

Ozone is produced naturally and can be smelled immediately after a lightening storm, or in a forest. Many refer to this as a clean, fresh smell, like that of new bed sheets. Some types of equipment such as photocopiers, printers and electric motors also generate ozone gas.

Ozone can also be produced by exposing air to a controlled electrical discharge in a device called an ozonator. Ozonators come in various sizes to purify swimming pools, municipal water supplies and can control spoilage in food storage.

Some restoration firms use in-plant ozone chambers to deodorize the contents of homes and offices. The chamber gives the restorer a high degree of control over the variable of temperature, humidity and treatment time. Control is needed because materials such as natural rubber, plastics and some textile dyes are sensitive to oxidation.

Portable ozonators can be used in homes or offices where odors need to be eliminated. The area must be sealed off and all occupants, pets and plants are vacated while high concentrations of



ozone are generated. Although no one has become seriously ill or died from over exposure to ozone, it is recommended to wait 30 minutes after the ozone generator has been turned off before re-entering the room. Ozone leaves no residue or toxic byproducts behind as it naturally converts back to oxygen in a matter of minutes, just simple ventilation is all that is required for its removal. **Ozone is not a cure-all for all odors.** There are specific applications ozone works well on and others that it has no effect on.

#### Did You Know . . .

On Thanksgiving evening, November 23, 1995 a Molotov cocktail was thrown through a window at the Goldenwest Credit Union in Ogden. Due to the prompt action of the Ogden City Fire Department, the fire damage WAS minimal. Unfortunately, heavy smoke and soot permeated almost every room in the building by way of the ventilation system. More than 75 computers and other electronic equipment was contaminated and rendered inoperable.

The day after Thanksgiving is the busiest shopping day of the year and the credit union needed to be open to serve its members as cash demands are high on that day. Utah Disaster Kleenup was contacted less than two hours following the fire to perform emergency board up and site protection. After securing the building, UDK and Goldenwest management mapped out a restoration plan, which I would enable the credit union to open for business the next day

Immediately, several service technicians were dispatched to join the scene. Destroyed items were moved and disposed of, carpets were cleaned, surfaces were wiped off and clean air machines were set up. The credit union was able to open for business the next morning because of the quick action by credit union officers and the professional response of Utah Disaster Kleenup.

#### Upcoming . . .

In the next issue we will update you on the Draper City Hall fire and discuss how computer systems and other electronic equipment can be cleaned and restored following smoke or water damage.