

# **Keep Your Chimney Safe**

Article courtesy of CSIA





Over 25,000 Chimney Fires per year in the US cause an estimated 128 million dollars in property damage

On these cold, damp Muir Beach nights, sitting in front of a fire is one of life's simple pleasures. Sitting in front of your fire calling 911 as you watch your chimney look like a Roman candle is *not* one of those pleasurable moments.

Having your chimney swept and inspected every year will protect your home, insure your safety and allow you to enjoy your fireplace with the peace of mind knowing it is safe.

Please take a moment to read this important information provided by CSIA.





Chimney fires can burn explosively – noisy and dramatic enough to be detected by neighbors or people passing by. Flames or dense smoke may shoot from the top of the chimney. Homeowners report being startled by a low rumbling sound that reminds them of a freight train or a low flying airplane.

However, those are only the chimney fires you *know* about. Slow-burning chimney fires don't get enough air or have fuel to be dramatic or visible. But, the temperatures they reach are very high and can cause as much damage to

the chimney structure – and nearby combustible parts of the house – as their more spectacular cousins. *With proper chimney system care, chimney fires are entirely preventable.* 

#### **Creosote & Chimney Fires: What You Must Know**

Fireplaces and wood stoves are designed to safely contain wood-fuel fires, while providing heat for a home. The chim-

neys that serve them have the job of expelling the *by-products of combustion* – the substances produced when wood burns. These include smoke, water vapor, gases, unburned wood particles, hydrocarbon, tar fog and assorted minerals. As these substances exit the fireplace or wood stove, and flow up into the relatively cooler chimney, condensation occurs. The resulting residue that sticks to the inner walls of the chimney is called *creosote*.

Creosote is black or brown in appearance. It can be crusty and flaky...tar-like, drippy and sticky...or shiny and hardened. Often, all forms will occur in one chimney system. Whatever form it takes, creosote is highly combustible. If it builds up in sufficient quantities – and the internal flue temperature is high enough – the result could be a chimney fire. Certain conditions encourage the buildup of creosote. Restricted air supply, unseasoned wood and, cooler than normal chimney temperatures are all factors that can accelerate the buildup of creosote on chimney flue walls. Air supply may be restricted by closing the glass doors, by failing to open the damper wide enough, and the lack of sufficient make-up air to move heated smoke up the chimney rapidly (the longer the smoke's "residence time" in the flue, the more likely is it that creosote will form). A wood stove's air supply can be limited by closing down the stove damper or air inlets too soon or too much. Burning *unseasoned wood* – because so much energy is used initially just to drive off the water trapped in the cells of the logs– keeps the resulting smoke cooler, than if seasoned wood is used. In the case of wood stoves, overloading the firebox with wood in an attempt to get a longer burn time also contributes to creosote buildup.







#### Nine Signs that You've Had a Chimney Fire

Since a chimney, damaged by a chimney fire, can endanger a home and its' occupants and a chimney fire can occur without anyone being aware of them it's important to have your chimney regularly inspected by a CSIA Certified Chimney Sweep. Here are the signs that a professional chimney sweep looks for:

• "Puffy" or "honey combed" creosote



- Cracked or collapsed flue tiles, or tiles with large chunks missing
- Discolored and/or distorted rain cap





- Heat-damaged TV antenna attached to the chimney
- Creosote flakes and pieces found on the roof or ground
- Roofing material damaged from hot creosote
- Cracks in exterior masonry
- Evidence of smoke escaping through mortar joints of masonry or tile liners





### **How Chimney Fires Hurt Chimneys**

#### **Masonry Chimneys**

When a chimney fire occur in masonry chimney – whether the flue is an older, unlined type or tile lined to meet current safety codes – the high temperatures at which they burn (around 2000°F) can "melt mortar, crack tiles, cause liners to collapse and damage the outer masonry material". Most often, thermal shock occurs and tiles crack and mortar is displaced, which provides a pathway for flames to reach the combustible wood frame of the house. This event is extremely dangerous, call 911 immediately.

#### Pre-fabricated, factory-built, metal chimneys

To be installed in most jurisdictions in the United States, factory built, metal chimneys that are designed to vent wood burning stoves or pre-fabricated metal fireplaces must pass special tests. Most tests require the chimney to withstand flue temperatures up to 2100°F – without sustaining damage. Under chimney fire conditions, damage to these systems still may occur. When pre-fabricated, factory-built metal chimneys are damaged by a chimney fire, they should no longer be used and must be replaced.

#### **Special Effects on Wood Stoves**

Wood stoves are made to contain hot fires. The connector pipes that run from the stove to the chimney are another matter. They cannot withstand the high temperatures produced during a chimney fire and can warp, buckle and even separate from the vibrations created by air turbulence during a fire. If damaged by a chimney fire, they must be replaced.

#### **Proper Maintenance**

Clean chimneys don't catch fire. Make sure a CSIA Certified Chimney Sweep inspects your solid fuel venting system annually, and cleans and repairs it whenever needed. Your sweep may have other maintenance recommendations depending on how you use your fireplace or stove. CSIA recommends that you call on CSIA Certified Chimney Sweeps, since they are regularly tested on their understanding of the complexities of chimney and venting system.



Congratulations to Frank Piazza,

our newest volunteer, for

completing his EMR course.



### **Increase in Fire Insurance Premiums**

### By Steve Wynn

It has been brought to our attention that some of you may have been impacted by a sudden increase in your fire insurance premiums. Apparently a few insurance companies have internally adjusted the Insurance Service Office (ISO) rating of a few homes in Muir Beach from a 4 to a 10 which has resulted in higher premiums.

### What is the function of ISO?



ISO collects information on municipal fire-protection efforts in communities throughout the United States (number and distance of fire hydrants in relation to a property, community water supply, distance/ response time of a responding fire station, mutual aid, emergency communication etc.). In each of those communities, ISO analyzes the relevant data using their Fire Suppression Rating Schedule (FSRS). They then assign a Public Protection Classification from 1 to 10. Class 1 generally represents superior property fire protection, and Class 10 indicates that the area's fire-suppression program doesn't meet ISO's minimum criteria.

By classifying communities' ability to suppress fires, ISO helps the communities evaluate their public fire-protection services. The program provides an objective, countrywide standard that helps fire departments in planning and budgeting for facilities, equipment, and training. And by securing lower fire insurance premiums for communities with better public protection, the PPC program provides incentives and rewards for communities that choose to improve their firefighting services.

### What is Muir Beach's ISO rating:

The Muir Beach CSD recently learned from the ISO that there have been no ratings changes by ISO for Muir Beach since 1998, and that a sample property (the Pelican Inn) indeed has a 4.0 ISO rating as of today. They also mentioned that individual insurance companies (particularly the smaller ones that rely exclusively on ISO) may adjust ISO ratings in-house for individual properties.



#### What you can do:

First of all, if you haven't received an increase in your fire insurance, don't rock the boat until it happens. If you have been hit by the increase, the simplest thing you can do is to shop around to larger carriers who tend to do risk analysis on their own. State Farm has abandoned ISO ratings altogether. AAA is another that recently provided coverage to Muir Beach without issue and we have heard that Allied / Nationwide renewed some community members policy with out incident.

If you choose to stay with your provider, the ISO recommendation is for property owners to request a re-review within the particular insurance company.

Here is some of the information you will need to have for the review:

- A map of the Muir Beach fire hydrants (for a copy, contact me at <a href="mailto:steve@muirbeachfired.com">steve@muirbeachfired.com</a> )
- Muir Beach Community has 450,000 gallons of water storage plus a higher than normal density of fire hydrants.
- All fire stations count so far as the distance calculation, especially those under a 5 mile distance, so the proximity to the Tam Valley Station should be mentioned (4.9 miles) The address of the Tamalpais Valley Fire Station (part of Southern Marin Fire District) should also be provided – 309 Poplar St, Mill Valley 94941.
- MBVFD Station (typically 0.8 miles distance from most homes) which has two engines.
- The Throckmorton Fire Station (5.2 miles) and Stinson Beach Fire Station (5.2 miles).
- The actual fire experience of a community is important usually tracked by zip code, and that fire sprinklers are also a relevant and persuasive inducement to providing coverage and should be mentioned if present



### Air Ambulance Insurance

By Steve Wynn

Every year, MBVFD responds to calls where getting a patient to the right hospital within the Bay Area by the fastest means possible is critical. From vehicle and trail accidents to medical emergencies and even hard to reach rescue situations, sometimes the best option is to call in a helicopter.

Emergency services in West Marin utilize helicopters for medical transportation whenever an

emergency situation warrants it. Typically, the cost of this service ranges from \$10,000 to \$30,000. The patient transported (or their insurer) is responsible for the cost incurred.

The MBVFD would like to inform Muir Beach residents of membership services offered by the air transport companies, which could cover part or all of the cost of the transport. We are not advocating either for membership or the companies, but simply wish to raise public awareness of the opportunities so you can make an informed decision.

Of the air ambulance companies utilized in our area, two are private companies and offer affordable memberships. One is REACH Air Ambulance, the other is CALSTAR. Chances are good, although not 100%, that if you need to be transported by air for a trauma or medical emergency, one of these companies will be called through the 911 system. If you do become a member of one or both companies, THERE IS STILL NO GUARANTEE that the company you have a membership with will be utilized. The closest, appropriate provider will be

If you are interested in membership, we strongly encourage you to inform yourself thoroughly. You can do this at

called for the 911 dispatcher.

<u>www.mediplane.com</u> for REACH and <u>www.calstar.org</u> for CALSTAR. Both have a membership tab that provides clear information and contact numbers.

Please feel free to contact me with any questions or concerns you may have at: <a href="mailto:steve@muirbeachfire.com">steve@muirbeachfire.com</a>











### Follow-up on MBVFD's donation to Plumas Coun-

By Steve Wynn

A little while ago I received an interesting letter from Tom Forster at Plumas County regarding the engine we donated to them. It was such a intriguing "full circle story" about the history of that engine and how it has helped their department that I wanted to share it with you. We were so fortunate to receive the generous donation of our new engine from George Lucas that it was nice to see that our attempt to "pay it forward" by donating our old engine was so graciously received.

Hi Steve -

The donation means a great deal to us, and we will put it to good use. Our budget is small and we cannot afford to purchase new apparatus. We have always purchased older, used engines that are over 20 years old. The one exception was purchasing a new pickup/utility around 2000 for EMS/Rescue that does not have a pump or water. It's a great upgrade for us to obtain your engine, replacing our 41-year old Type III Model 5. We've donated that engine to Downieville in Sierra County...





For me, this donation is also special because it was once my good friend Ken Massucco's engine 1577 when he was Senior Captain at Woodacre. Small world - we hosted an MCFD training planning meeting at Skywalker in 1988. Little did I know that the engine would eventually end up where it is today. It's had quite a life. You can see Ken in the middle, and I think almost all of those guys are now retired from MCFD.







..... A few weeks ago Captain Rick Wonneberger from Marin County FD was hired to come up and do another LARRO class for regional departments. The photos show the engine at Plumas Eureka State Park at an elevation of about 5,200 feet, serving as an anchor for over-the-side training. Turns out Rick remembers working on the engine when it had jump seats. The group photo includes students from multiple counties and many departments, including CAL FIRE.



MBVFD' donated engine Photo by: Tom Forster

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Thanks again for your kindness,





### **MBVFD Emergency Response Report**

### From January 1 through December , 2012

#### Total Emergency calls: 55

30.9% of calls have been within our community and 69.1% have been for the surrounding area (Muir Woods, Slide Ranch, Green Gulch, trails, Roads and highways.

Our firefighters have spent a total of 66.5 hours on emergency calls, and over 120 hours on training and extended education.

#### Breakdown of the calls:

- 29 Emergency Medical Services (EMS)
- 11 Vehicle Accidents without extrication
- 5 trees down
- 4 other incidents such as enforcing fire restrictions on the beach, community service
- 2 vehicle extrication
- 1 Hazardous material/conditions
- 1 other rescue situations
- 1 vegetation fires
- 1 working/structural fires



# For more information on the MBVFD, safety tips, MBVFD merchandise, how to make a donation, or to read these stories on line visit: **muirbeachfire.com**

Questions or comments contact Steve Wynn at: steve@muirbeachfire.com