

## **Winter Fire Safety Tips from the Trinity County Fire Chiefs Association**

Just about everyone is now all too familiar with the fire hazards associated with summer weather, but winter brings about its own dangers. With that in mind, the Trinity County Fire Chiefs Association would like to offer a few safety tips.

Winter is colder and darker than summer, and therein lies the potential for fire related problems. The most common fire responses your volunteer fire departments handle during the winter months are flue fires. Flue fires are caused by the ignition of sap, debris and residue that has accumulated in the chimney system. When this accumulation ignites it yields a roaring fire (literally a roaring sound) that will exhaust fire, sparks and ignited debris through the top of the chimney.

There are two hazards here:

1. Burning debris exiting the chimney can ignite any flammable materials it contacts, such as non-fire resistant roofing materials, pine needles on the roof or proximate wood piles.
2. The heat generated within the chimney can radiate from the chimney walls to contiguous flammable walls of the dwelling thus igniting them.

So obviously there is a significant fire hazard potential inherent with flue fires. The best strategy is prevention of flue fires, and the way to do that is to have your fireplace/firebox/insert and chimney system cleaned at least once a year. Not doing so is an invitation to disaster, so the few dollars saved in not doing so is simply not worth the tradeoff. When cleaning the system do not ignore the spark arrestor at the top of the chimney. Arrestors with mesh sides have a tendency to clog up with this same debris, and when that happens the system cannot establish the proper draft. A clue is when your house fills up with smoke. Do not then attempt to use the system until it has been cleaned.

Assuming you have a clean system, each morning when you stoke the fire, make it extremely hot at first to establish the vertical draft and to burn off any debris so that it does not accumulate to the point where it can create a potential for a flue fire.

If you do have a flue fire, do the following as simultaneously as possible:

1. Close the damper and/or vents to cut off the flow of air. Fire needs oxygen. No oxygen equals no fire.

2. Take a full roll of paper towels, saturate it with water, and put it in the fire box. The water will vaporize to steam, help suppress the fire, and cool the environment.
3. Call 911. Your volunteer fire department needs to respond, even if you think the fire is out from the first two steps. We can check from both the fireplace and chimney top areas. If necessary we can put a special mist nozzle down the chimney to introduce very small amounts of water to extinguish the fire and cool the flue system. We can also use a thermal imager to check for hot spots within the walls.

Strangely enough, at least from our perspective, the disposition of ashes can sometimes be a dangerous undertaking. Many of us have fought fires that were started by hot ashes being placed in a flammable container (such as a cardboard box or plastic bucket) and then placed in a location where a fire can start, such as a storage room or garage. Since these ashes are not being observed, by the time the fire is discovered significant damage has occurred. The preventive solution is to place removed ashes in metal buckets. Put those metal buckets outside and well clear of any flammable materials.

From time to time people will attempt to heat a dwelling using other than the fireplace, central heating system or auxiliary heaters intended for the purpose. Oftentimes this involves bringing in a barbecue or hibachi as a heat source. Do not do this! These unvented heat sources are introducing carbon monoxide (CO) as their fuel is burning. Carbon monoxide is colorless, odorless, tasteless and progressively fatal. If a device is not intended to heat a building, don't use it.

Winter storms often bring power outages. Trinity PUD does an outstanding job of restoring power in a timely fashion, but even then it can take time. For many people the solution is a generator. There are several safety concerns associated with the use of generators:

1. If the generator is to be connected to your home electrical system at the junction box, make certain the switching system is up to code so that when the home electrical circuit is running on the generator, the entire system is off the grid. When PUD technicians are working on downed lines the electricity is shut down from their end and they assume they are working with uncharged lines. To then back charge into the PUD system creates an extremely dangerous situation for the technicians. Modern systems are wired and switched to preclude this from happening, but older systems may not be.
2. Make sure the generator is placed so that exhaust does not enter your home. Again the hazard here is carbon monoxide.
3. Exercise the appropriate precautions when fueling and especially refueling generators. There is considerable heat produced by a generator and gasoline vapors can easily ignite, even in very cold temperatures. Do not store portable gasoline containers close to the generator for this same reason.

The last issue deals with candles. Even if someone is running a generator, in many instances fewer lights will be turned on to conserve generator fuel, and candles will be used instead. Candles must be placed away from flammable material and on a stable base so that there is no possibility they can be knocked over. If you have pets in the house there is always the danger that they can knock over a candle so that is another issue that must be anticipated when determining candle placement. Lastly, when you go to bed at night, check every candle to make sure it is extinguished.

We want you to have a safe winter, and we are here in case you don't. But you don't want to have to make that 911 call. Foresight and prevention will stack the odds in your favor. If you have specific questions call your volunteer fire department. We are here to help, and if we can do it ahead of a 911 call everyone benefits.