



Spontaneous Combustion

by Fire Chief Shane Warner
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As we get into late summer and early fall homeowners are motivated to get ready for winter by doing yard work and building maintenance. Typically, we see homeowners repairing roofs, rain gutters, painting, and resealing decks. The purpose of this article is to remind you of important safety issues when using stains and oils. Many common products are used to re-seal decks or natural wood exterior finishes. One of the most important things to remember when using these products is to review the application, first aid, and clean up instructions on the product of choice.

A common mistake is when a homeowner fails to follow the product instructions on clean up. Most people do not think about certain products having the possibility of spontaneously combusting. This can happen when a substance, with a relatively low ignition temperature, begins to release heat, which can occur by oxidation or fermentation. If the heat cannot escape and the temperature of the material rises above its ignition point then combustion begins if sufficient oxygen is present. The product will begin to smolder and catch fire. Once the product supports combustion the product and material around will catch on fire.

When re-sealing decks keep in mind the time of day the manufacturer recommends for application. Also beware of applying the product to other areas not intended for the product such as pine needles and beds of duff underneath the deck. The product drippings can build heat in the duff piles supporting ignition of a fire. Another area of caution is when cleaning up the tools that have been used such brushes, rollers, rags, etc. Most manufacturers recommend soaking all tools used to apply the product in water before disposing of them in a garbage can.

Another source of spontaneous combustion is hay found in stables and dairies. This hay may have been piled when it was damp therefore letting the hay mildew. The bacteria in the mildew can become very hot during the warmer days of summer supporting combustion in the pile. Or the hay may have been piled so tightly that under the right conditions spontaneous combustion may occur causing the whole pile to ignite. Hay stack fires take large amounts of water and farm equipment to put them out.

Another possible source we see in the foothills is lawn clippings catching fire. When you mow your lawn and catch the clippings in a bag, remember to spread out the clippings when you are disposing of them. Piling clippings one on top of one another over several weeks of accumulation stores heat in the piles. As these clippings dry they build gas and heat and in the right condition can begin to a fire.

So, please think about fire safety as you do your house and yard maintenance this summer and fall.