



Northville Township Fire Department

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Smoke alarms have been part of the American vernacular for over 40 years, yet our department still finds homes that don't have working smoke alarms. Recently, our department was called for a reported house fire. Fire crews arrived to find heavy smoke and fire coming from the garage and extending into the house. The only person home at the time was able to escape safely, but only after he was alerted of the fire by a loud popping sound coming from the garage. During his investigation he opened the door to the garage and was instantly pushed back by the heat and flames. He quickly exited the house he called 911 to report the fire. The fire department responded and quickly extinguished the fire without any injuries. However, had the fire occurred while he was asleep, the lack of working smoke alarms could have been deadly.

After every major fire in Northville Township, our department completes an origin and cause investigation to determine how and why the fire began. These investigations help us alert the community of common fire causes, malfunctioning products and other fire hazards. This investigation revealed that the fire was caused by the spontaneous combustion of stain soaked rags. You may have believed that spontaneous combustion was only a myth; however, the threat is very real. This is the second house fire in the last year that was caused by the improper disposal of stained rags in Northville Township.

Did you know?
According to the National Fire Protection Association (NFPA) over 14,000 fires are caused by spontaneous combustion each year.

What is spontaneous combustion?

Spontaneous combustion is a chemical reaction known as oxidation. The most common form of oxidation is known as rust, which is a very slow process that does not cause a temperature increase. However, spontaneous combustion occurs when the heat caused by oxidation builds up until the object ignites. This is what happens when oily or stained rags, normally cotton, are piled up and not disposed of properly.

There are a number of valuable lessons that we can learn from this incident. Here are just a few:

- **Make sure you have working smoke alarms.** When properly installed, smoke alarms are the most effective way to notify you and your family of a fire. However, smoke alarms that are missing, damaged or improperly maintained, cannot protect you. Every smoke alarm should be replaced at least every 10 years and your batteries should be replaced annually.
- **Always read product labels.** With summer upon us housing projects are in full swing. Take time to educate yourself on the products that you are using for warnings or hazards. Remember to read the label of any product that you use including stains for your deck, furniture or flooring.
- **Use proper disposal methods.** Read product labels to determine the hazards associated and the recommended methods to prevent a fire. When staining with rags make sure to discard used rags in the proper container. Disposal containers should be made of metal with a tight fitting lid. Once the rags are placed inside, fill the container with water to submerge the rags.

Please read our column next week on Garage Safety Tips. If you have further questions please contact us at (248) 348-5807 or via email at thughes@twp.northville.mi.us.