

Hays County Fire Marshal's Office answers questions about smells when you turn your heater on for the first time as the weather turns cold.

In an ideal world, the air treated by your HVAC system could be odorless or at least smell pleasant. However, unusual HVAC smells are fairly common, especially when you turn on your furnace during the winter months.

Some of these odors indicate a serious health risk or issue with the heating unit itself, while other smells are harmless if unwanted. So how do you tell the difference between a warning sign and a minor annoyance?

Here, we list some of the most common furnace odors and discuss which you should worry about.

Odors That Can Indicate Hazardous Conditions

Sometimes, a change in heater smell is a hint that the unit has become damaged. Take immediate action if you notice one of the following four odors.

1. Chemicals

If you smell a distinctly chemical odor that's similar to formaldehyde, the odor likely results from a crack in the heat exchanger component of your furnace. This component cycles heat out of the combustion chamber and into the plenum.

A broken heat exchanger increases the risk of fire and can distribute carbon monoxide fumes throughout your home.

2. Electrical Burning

Electrical and metallic odors generally stem from excessive heat within your furnace. A smell like singed wires likely indicates an overheating metal component, while a more metallic smell may come from a damaged rubber component.

To prevent an automatic shutoff and reduce the risk of fire, turn off the furnace until a professional can find and replace the overheating components.

3. Rotten Eggs

The smell of sulphur or rotten eggs almost always indicates an issue with gas supply. Natural gas is odorless, but suppliers treat the gas with a strong rotten egg smell to make gas leaks more detectable. If the smell is faint, but does not dissipate, turn off the furnace and ventilate your home. If the smell is strong, call your gas company and follow their instructions.

4. Smoke

If you smell smoke or your smoke detector goes off, turn off your furnace immediately. Smoke odors usually result from a blocked chimney that forces smoke to go through the ductwork rather than out the chimney. A professional chimney cleaning should resolve the smell.

As soon as you notice one of these abnormal furnace smells, assess your safety. If the smell is faint, you may be able to open your windows for ventilation and schedule a service as soon as possible. If the

smell is strong or appears suddenly, leave your home until a professional can determine the source of the odor.

Smells That Usually Aren't Cause for Concern

Unlike the odors listed above, some smells simply occur during normal heating processes. The following three smells may warrant a maintenance call, but rarely indicate a dangerous situation for you and your family.

1. Burning Dust

It's easy for your furnace to become dusty, especially if it sits in a basement area. When the heater isn't in use, your furnace may gather dust on its surface or on its inner components. Then, when you switch the furnace on, the accumulated dust burns up inside the heater.

This odor is particularly common during your first use of the heater that season. Generally, burning dust smell is not a sign of serious issues unless it persists for more than a full day.

2. Oil

Often, an oil odor simply means your furnace filter has become clogged. Changing the filter should get rid of the smell.

However, if a new filter doesn't get rid of the oil smell, contact a professional. Persistent oil odors can indicate an oil leak.

3. Mustiness

Mustiness often occurs for similar reasons as burning dust smells: namely, that dampness has collected in and on the furnace. If this smell is faint or goes away after running the heater for a few hours, don't worry about the mustiness.

If the smell does not dissipate after a few days, there may be mold in your furnace system that's introducing a damp smell to all your treated air. Have a professional assess the seriousness of this issue as soon as possible since some types of mold can be toxic when inhaled.

If any one of these smells persists, talk to a trusted HVAC expert. Usually a small change, such as replacing a furnace filter, can resolve the issue.

If you smell an odor not on this list, ventilate the area and consult with a HVAC professional as soon as possible to determine whether or not the odor is cause for concern.

If you notice a strange smell coming from your furnace, consider scheduling a professional inspection. Even harmless odors can linger in your home for the entire season if their cause isn't addressed. Contact your local Heating and Air Conditioning company for furnace repair, replacement, or routine maintenance to get your home back to smelling fresh and pleasant.

In all cases, don't hesitate to call 911 if you are concerned about the health and safety of your family.