## THE MUTUAL MONITOR, WINTER 2019 EDITION, PAGE 4

## PUFFBACK A LONG WAYS FROM MAGICAL



When you hear the term "puffback," do you start humming the 1960's Peter, Paul and Mary hit about a magic dragon who lived by the sea? If so, for one thing, you can probably see the number 50 or something even higher in your personal birthday rearview mirror. But, joking aside, the end product of the dragon and puffback are probably similar although in the case of the latter, the "dragon" is a fuel oil furnace that has misfired and the results are definitely not magical. Instead the furnace emissions are greasy soot that isn't just dirty, messy and unsightly. It often requires expensive, professional cleaning and equally costly repairs to your heating system.

A puff back can happen when an oil burner doesn't ignite immediately and oil fumes are allowed to build up before ignition resulting in an explosion similar to the backfiring of a car. Buildup of debris can also create an excessive explosion at ignition. In either case, the explosion can shoot soot and debris through the furnace or boiler's exhaust system and into your home. If you have a forced air system (a hot air system as opposed to a hot water system) the problem will likely be worse as the heating ducts can spread soot into every corner of your home with the same efficiency that they spread heat. A puff back can be a chronic problem with each ignition sending forth a small amount of soot that slowly accumulates on heating vents, ceilings, carpets or baseboards or it can be a single sudden event that sends a large amount of soot through the heating system. This discharge of soot points to an underlying problem with the heating system which will need to be repaired. If you are lucky, the faulty piece will only be an inexpensive valve or filter and not a signal that the oil burner needs to be replaced.



This soot is not just a powder-like substance but is black and sticky and will include a mixture of oil that is difficult to clean. This dirty residue needs to be cleaned as soon as possible and oil-based soot is extremely difficult to remove. In addition to the soot, a puff back causes a foul odor to permeate your home.

Most oil-burning furnaces in



## STANDING BEHIND YOU. HELPING YOU FORGE AHEAD.

STRONG | SECURE | STABLE

grinnellmutual.com



was done. Even before the insurance adjuster arrives, you should open windows and ventilate the house to rid it of as much of the foul puffback odor as possible. Puffbacks often result in oily black "webs" of soot being distributed throughout the house which require extensive cleaning and sometimes professional restoration to complete the clean up. One thing is certain. The dirty residue needs to be cleaned up as soon as possible. You also need to throw away any exposed food immediately. Then, call a repairman to fix that malfunctioning furnace.

danger of having a puff back

give off warning signs that should indicate a problem with the furnace. Black soot on the furnace, walls or ceiling indicate that oil is burning improperly in the furnace and is leaking out of the unit. Noises such as those made by the combustion chamber while it is burning may continue after the furnace has stopped indicating that something is still burning within the furnace even though it shouldn't be. Noises at the beginning of the burn cycle, such as a puff or bang, also indicate that unburned oil has pooled and ignited.

Preventing puff backs in oil-burning furnaces is largely a matter of performing regular maintenance on the furnace to keep it in proper operating condition. Oil-burning appliances should be cleaned and serviced once per year. Make sure that the service person opens the unit and inspects it for signs of problems or damage. Inspect the furnace periodically for signs of oil leaks paying attention to any odd smells or soot in the furnace room. You should also look for debris in the flue vent connector which could also be a sign of problems with the furnace.

If you have a puffback, you should notify your insurance company immediately as they will want to assess the situation and the damage that