Vincent's Heating & Plumbing

#### March 2023

## VINCENT'S NEWS The Van-Go' Gallery



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### Did you know...

...measuring CO levels in your home is part of our furnace or boiler tuneup? When you call to set up a visit, mention this blurb and save \$50 off the tune-up price! SEMCO customers also get an additional \$50 tune-up rebate! OWNER'S CORNER

## THROUGH MY EYES

Just the thought of being able to stand in a hot shower without ever running out of hot water is a perfect example of **why I love my tankless water heater**. It only gets better when you factor in how much safer - and energy efficient - tankless heaters are. These added benefits are both from not needing a tank to store hot water.

By eliminating the tank, the energy loss of keeping a tank of water hot is eliminated. This saves money. Also, without a storage tank the risk of Legionella bacteria or other organisms growing in your heater is eliminated. With a tankless heater, cold water is 'flashed' to a temperature of 200° F instantly killing any bacteria. However, this takes a lot of energy.



"Wherever you see a Vincent's Van Go' you know the job will be a work of art."



Checking for leaks in gas lines is an important task in making certain you're safe in your home. Pictured above is our technician Andrew checking a gas line to a water heater for leaks.

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### Carbon Monoxide Risks - Part 2: CO Alarms

This month I want to address misconceptions regarding carbon monoxide alarms and monitors.

Did you know that CO alarms have a limited lifespan? CO alarms rely on an electrochemical sensor to detect the presence of carbon monoxide. Over time the sensor degrades and renders the CO alarm useless. Typical CO alarms bought at big box stores have a 2-year lifespan. Professional models – like the NSI3000 we sell - are equipped with professional grade CO sensors and <u>can last up to 5 years.</u>

Don't rely on a test button – that only tells you that the battery is good and that the buzzer works. The only correct way to test a CO alarm is to expose it to CO gas and see if the alarm sounds. <u>A good</u> <u>practice is to use a Sharpie to note</u> <u>the date you put the monitor into</u> <u>service</u> – or even better, an expiration date: '*expires March* 2025'. Then when you check it or change the batteries, you can verify it's still useful. <u>It's better</u> to err on the side of caution when it comes to making certain you are protected from carbon monoxide risks.

Did you know that CO alarms may not protect everyone in **your household?** Typical CO alarms are manufactured to satisfy Underwriters Laboratory Standard 2034 (UL 2034). That standard requires the alarm to respond within 240 minutes (4 hours!) when concentrations of carbon monoxide are at 70 ppm (parts per million). Per the standard, this is "at carbon monoxide levels below those that cause a loss of ability to react to dangers of carbon monoxide exposure". However, the standard is explicit that it doesn't address long-term or low-level exposures.

While this might be adequate protection for healthy adults, it isn't for everyone else. <u>Who is still at risk at this level?</u> <u>People with compromised</u> Even for healthy adults, over time, exposures to low levels of carbon monoxide can cause serious health problems.

immune systems, seniors and children, and even small pets – essentially unhealthy people or people with a low body mass – or both. Even for healthy adults, over time, exposures to low levels of carbon monoxide can cause serious health problems. The chart in the nearby insert identifies the health risks related to low level exposure to carbon monoxide.

#### You can verify this in your CO alarm paperwork.

Here is an example from directions for a Kidde carbon monoxide alarm that I purchased a few years back: "Also, <u>young children</u> and <u>household pets</u> may be the first affected. You should take extra precautions to protect <u>high-risk persons</u> from CO exposure because they may experience ill effects from CO at levels that would not affect a healthy adult"

Where it identifies 'highrisk persons, substitute senior citizens and people with medical conditions. Here is another disclaimer from the same instructions:

WARNING: Before trusting you and your family's safety to this device, learn about the many health risks involved with exposure to lower levels of carbon monoxide.

<u>For complete protection,</u> your best bet is a professional grade, low level CO monitor. For more information, see the nearby insert featuring the NSI300 low-level CO monitor at a discounted price.

- Daniel Squires



Vincent's Heating & Plumbing is proud to install Amana equipment, made in the USA.

## Through My Eyes (Continued from Pg.1)

With natural gas or propane this is no problem – both provide more than enough energy to do the job. It's a different story with an electric tankless water heater.

Recently, a customer had a question about upgrading from an electric water heater to an electric tankless water heater in their all-electric home. Tankless models require a lot more power than the 4 to 5kW needed for a standard (tank) model. In this situation, the maximum power available for a tankless unit was around 14kW.

According to a sizing chart for an electric tankless water heater (nearby), a 13kW unit will only supply enough hot water for a single bathroom faucet – about 1.4 GPM (gallons per minute). 36kW is required to supply a shower and a kitchen faucet (3.9 GPM).

In light of this, and upon learning from their electrician of the difficulty and prohibitive cost to upgrade their available power, the homeowner opted to stay with an electric tank-type heater.

As you can see from the chart, It would be different if we lived in Orlando where the average ground water temperature is 30° higher than in our colder Michigan climate.

#### Here's My Point

I apologize if this is all overly technical, but I laid this out to make a point: **there are consequences to pay in this push to 'electrify' America.** If you're not aware, there's a move to eliminate natural gas. <u>Several states, including</u> <u>California, have laws to ban the sale of natural</u>

State	Inlet Temp	KW	GPM	Approximate Usage								
М	42° F	13	1.4	1 bathroom fau cet								
M	42° F	24	2.6	1 shower & 1 low flow bath faucet								
MI	42° F	36	3.9	1 shower & 1 kitchen fauget								
				VS.								
FL	72° F	13	2.7	1 shower & 1 low flow bath faucet								
FL	72° F	24	3.7	2 showers & 1 low flow bath fauce								
FI	72° F	36	7.4	3 showers & 1 bath faucet								

This sizing chart provides details of the amount of electric power needed (kilowafts) at cartain average inlet water temperatures for a tankless electric water heater to provide hot water (gallons per minute). This illustrates the impact that climate has on tankless electric heaters by comparing Michigan to Florida.

gas appliances - furnaces and water heaters - by the end of this decade! I understand that Ann Arbor currently denies natural gas in new subdivisions and building projects. Maybe tankless heaters are luxuries we'll have to learn to live without - I hope not.

Does it seem like this is happening way too fast? It does to me. I want to be a good steward of our environment, but I am not sold on this current plan. As I have shared previously in this column, I am skeptical that renewables will be able to replace fossil fuels to provide all the electric power that we currently need - let alone the additional electric power needed for the allelectric future envisioned.

When we sent people to the moon, we had a way to bring them back before we sent them. This feels like we are launching into space without knowing how we'll get back and assuming we'll figure it out. That's not a good plan in my book. I think we've put the cart before the horse - except in this case the cart is a bandwagon.

- Daniel Squires

## What Our Clients Are Saying...

"Vincent's provides excellence at all levels. This is a top-notch company. They are polite and courteous and very informative. The quality of work and service are 'A-one'! - Tom Seilheimer, Saint Clair

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Humor Section

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The Most Reasons to be Your Best Choice

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A hot-shot lawyer and a regular average Joe are seatmates on an airplane.

It's a long flight. A couple of hours in the lawyer turns to Joe and says, "I've got a game we can play to pass the time."

"You ask me any question. If I can't answer it, I'll give you \$50."

"Then, I'll ask you a question. If you can't answer it, you give me \$5."

Joe shrugs and says, "Okay, what has four legs going up a hill, and three legs at the bottom?"

The lawyer thinks for a moment, shakes his head, then hands Joe \$50.

He says, "Wow, that was tough. I don't know, what has four legs going up a hill and three legs at the bottom?"

Joe pulls out a \$5 bill and hands it to the lawyer, "There's your \$5."



## Don't Be a Carbon Monoxide Statistic

Carbon monoxide (CO) has the reputation of being the "silent killer." Most people are aware that breathing high levels of CO can be fatal, but few are aware that even at low levels, carbon monoxide can make you sick. According to the Center for Disease Control (CDC):

"Each year, more than 400 Americans die from unintentional CO poisoning, more than 20,000 visit the emergency room and more than 4,000 are hospitalized due to CO poisoning. Fatality is highest among Americans 65 and older." <sup>1</sup>

Typically, the only carbon monoxide related incidents that are reported in news reports are when people die. This can lead to a false impression of the dangers related to carbon monoxide:

"Albert Donnay, a consulting toxicologist based in Hyattsville, Md., said he believes that more than 200,000 emergency-room visits per year should be attributed to CO poisoning, and the death rate is closer to 2,000 per year. He said he thinks the numbers are higher than reported because COrelated illnesses often go undiagnosed and are treated incorrectly. "Families may develop chronic flulike symptoms, headaches, fibromyalgia, irritable bowel syndrome and weakness from low levels of CO," said Donnay. "Doctors don't know to ask about

CO in their homes."<sup>2</sup>

This is one of the reasons that technicians at Vincent's Heating & Plumbing receive advanced training from the National Comfort Institute (NCI) in Sheffield Lake, Ohio. Since 2006, every technician at Vincent's has become an NCI certified Carbon Monoxide & Combustion Analyst, and is recertified every two years. This speaks to the importance that Vincent's places on the safety and well-being of its customers, because so many problems related to carbon monoxide are unrecognized.

"Tens of thousands don't realize that CO is the cause of their medical problems," said Jim Davis, a senior trainer with the National Comfort Institute. The National Comfort Institute trains HVAC contractors, fire departments, engineers and home inspectors in the proper testing of appliances that use CO-producing fuels. "The damage is cumulative over time and affects your memory, heart and lungs."

The National Fire Protection Association (NFPA) reports that those with physical conditions that limit their body's ability to use oxygen (asthma, heart disease, etc.), infants, and pregnant women are at the highest risk of death from CO poisoning. Among the healthy adult population, more men than women succumb to CO poisoning.

Davis of the National Comfort Institute said that you must use the proper testing equipment when searching for CO leaks. "You should be using a combustion analyzer," Davis said.

Davis explained the difference between an analyzer and a monitor. "A monitor just tests the CO levels in a house," he said. "An analyzer determines if there is proper combustion efficiency, ventilation and fuel-air mixture. You want to know if your furnace is mechanically sound."

According to Davis, a combustion analyzer should always be used during installation and maintenance of appliances. "Sadly, only 2% of contractors are trained and certified in the use of combustion analyzers," he said. "Not one state requires certification in combustion and carbon monoxide." <sup>3</sup>

As a client of Vincent's Heating & Plumbing, you are fortunate to have an NCI trained contractor to look after your heating equipment and help you avoid carbon monoxide poisoning. The best way to avoid becoming a carbon monoxide statistic is to follow this sound advice from the Center for Disease Control (CDC):

"Recommended Strategies to prevent CO poisoning from your home appliances include having your heating system, water heater and any other gas, oil, or coal burning appliances serviced by a qualified technician every year and installing a battery-operated CO detector in your home." <sup>4</sup>

It's a very simple 3-step formula: 1) Have your heating appliances serviced by a qualified technician

2) Do it every year

3) Put a CO alarm in your home.

Vincent's Heating & Plumbing can help you with all three steps. On the reverse side we focus on the last step.

#### SEE REVERSE SIDE FOR A SPECIAL OFFER

<sup>1</sup> Source: Carbon Monoxide Poisoning Fact Sheet, April 27, 2009, CDC Centers for Disease Control and Prevention

- <sup>2</sup> Source: https://www.washingtonpost.com/news/where-we-live/wp/2018/02/12/why-a-carbon-monoxide-monitor-in-your-home-may-not-be-enough-to-protect-you/?noredirect=on&utm\_term=.6bf5f971ce74
- <sup>3</sup> Ibid

<sup>&</sup>lt;sup>4</sup>Source: Carbon Monoxide Poisoning Fact Sheet, April 27, 2009, CDC Centers for Disease Control and Prevention

## THE BEST CARBON MONOXIDE ALARM PROTECTION FOR YOUR FAMILY <u>IS NOT</u> AVAILABLE AT A HOME IMPROVEMENT CENTER OR HARDWARE STORE

The typical store-bought alarm *(Kidde, First Alert, etc.)* from a hardware store will only sound the alarm after 70 ppm (parts-per-million) has been sensed for a period of 4 hours *(See actual packaging in store.)* You are safer sleeping in a public parking garage, which has a 25 ppm maximum allowable limit! Consider this compiled chart of carbon monoxide dangers below 70 ppm *(source - NCI)*:

CO LEVEL	CARBON MONOXIDE RISK OBSERVED OR ALLOWABLE LIMIT
3-7 ppm	6% increase in the rate of admission in hospitals of non-elderly for asthma. (Sheppard-1999)
5-6 ppm	Significant risk of low birth rate if exposed during last trimester (Ritz & Yu - 1999)
10 ppm	Outdoor level of CO found associated with a significant increase in heart disease deaths and hospital admissions for congestive heart failure.
15 - 20 ppm	First level World Health Organization (WHO) lists as causing impaired performance, decrease in exercise time and vigilance.
25 ppm	Maximum allowable in a parking garage (International Mechanical Code)
27 ppm	21% increase in cardio respiratory complaints. (Kurt-1978)
35 ppm	US NIOSH recommended 8-hour maximum workplace exposure. EPA standard for outdoors for 1-hour and a maximum of 1-time per year.
50 ppm	US OSHA recommended 8-hour maximum workplace exposure.
70 ppm	First alarm level for a store bought - UL 2034 approved - CO alarm.

# The solution? The NSI 3000 Low-Level CO Monitor which detects Carbon Monoxide levels as low as 5 ppm!

#### The NSI 3000 Low-Level CO Monitor features include:

- Continuous Scan<sup>™</sup> mode lets you know monitor is checking for CO 24/7
- Digital display shows CO levels of **5 p p m** or higher
- Low Alarm 1 5 p p m audible & visual every 8 seconds
- High Alarm **3 5 p p m -** audible & visual every 4 seconds
- Crisis Alarm 70 + ppm audible & visual every 2 seconds

The NSI 3000 Low-Level CO Monitor is Only Available From Authorized Resellers

## Save \$49 off a NSI 3000 Low-Level CO Monitor Reg. Price \$199 Now \$150 - our lowest price ever!

<u>VHP Club Members & Enhanced Service Plan clients: Save an Extra 10% After Discount = \$135</u> Offer Expires April 15. Free delivery with any service or maintenance visit.

<u>CALL (810) 985-7103</u> to set up a service call or maintenance visit for free delivery OR stop by the office to purchase.

NOTE: The NSI3000 Monitor is available while supplies last. Vincent's Heating & Plumbing, Inc. 2650 Oak St, Port Huron sales@vhpinc.com

# Three "<u>Brutal</u>" Reasons Why You Should Have Your Furnace's Ductwork Cleaned.

### (Not intended for the squeamish)

# <u>Reason #1</u> - Picture yourself taking deep breaths from your vacuum cleaner's bag -- just before you empty it!

As awful as this sounds, it gives you an accurate picture of what the air you breathe is like after it passes through the crud and decaying material in your furnace's ductwork.

That's because your ductwork is a lot like your vacuum cleaner. And if you think about it, the main difference is that your vacuum only runs a few minutes each day compared to the hours on end that your furnace fan runs. Every time your furnace runs, things are sucked into your ductwork. Things like dust, pet hair, cooking grease, cigarette smoke and other debris that will stay in your ductwork -- until they eventually breakdown and are released back into the air stream for you and your family to breathe.

Anyone who has ever cleaned underneath or behind their refrigerator knows just how much gunk a fan will collect. So if you want to know what's in the dark depths of your ductwork, just look in your vacuum cleaner -- and see what you're breathing, too. This alone is reason enough to get your ducts emptied.

### <u>Reason # 2</u> - Maybe you just "*thought*" the cat ran away....

This sounds extreme, but you wouldn't believe what we find in ductwork. I can't say we've found anything as large as a cat, but we have seen everything else imaginable. Everything from long forgotten victims of *De-Con* to lost pet turtles that now only resemble small ashtrays.

You see, even though you're the best housekeeper in the world, what about the person who lived in the house before you? Unless it's a new house, you don't know what stuff remains in the ductwork from the previous owners... stuff that depends entirely on what their hygiene, housecleaning and smoking habits were (not to mention how they took care of their pets). In most cases it's probably better that you don't know.

You can be certain that if your furnace ductwork isn't clean, you're breathing air that passes through the accumulated dust and crud from everyone (and everything) that has ever lived there. I hope this unpleasant picture doesn't make you swear-off breathing completely -- remember, it's still safe to exhale. All is not lost: this debris will be totally removed when you have your system cleaned!

### Reason # 3 - The "Mushroom Theory" and "Mutant Rabbits"!

The mushroom theory usually compares the "essentials of mushroom growing" with how politicians treat you. Everyone knows that the best place to grow any type of mold, fungus, or bacteria is in a dark moist environment where it can feed on decaying organic matter. Amazingly, this is also pretty descriptive of the conditions inside ductwork located in a damp basement or crawl-space. In most cases, unclean ductwork is a perfect place to start a little fungus farm.

Not only will dirty ductwork act as a breeding ground for unwanted bacteria and mold, it also acts as a gathering place for everything else that enters a home. Things like pesticides, lead, chemicals and other such unhealthy particles. These unwanted substances enter the house through open windows or are tracked in, and upon entering, bind with household dust. Unfortunately, once in the house and sucked into your ducts, nature has no way of dealing with these potential health time-bombs. In fact, the pollution that gets trapped in your home today is 5 times that of outdoor levels. You need to picture all those soft, fluffy, little "*dust*"

*bunnies*" living in your ducts as having large claws and nasty teeth. Teeth that can really take a bite out of your family's health if you don't deal with them.

### Can duct cleaning really solve these nasty problems?

You bet it can. Although we won't promise to find your long lost cat or turtle, we will promise that you will breathe better and healthier by having us clean your ducts properly. You see, when we clean your ducts, we do the job right. We use state-of-the-art equipment specifically designed for home duct cleaning. And, we don't much it. We take the time meeted a meet is heavill take a day to clean

rush it. We take the time needed -- most jobs will take a day to clean the duct system correctly.

We clean everything in all the round and square pipes of both the hot air supplies and the cold air returns. To do this we use a RotoBrush machine that has rapidly spinning brushes at the end of a powerful vacuum hose to scrub the ducts clean and immediately suck any dust or debris into the waiting vacuum. Plus we have a video camera in the ductwork at the same time to make certain we are able to do the job right. This process gets <u>everything</u> out of your ducts, guaranteeing you a sanitary and clean air passage when we're done.



Also, as filthy, messy, and grimy as this tedious process is, you won't have to worry about your home getting dirty because of it. When we're done, you probably wouldn't even know that we had been there, except that you'll breathe easier because we pulled out all the junk that you can't get to on your own. As an extra bonus, duct cleaning has the added benefit of cutting down on the furniture dusting that everyone enjoys so much.

### Don't spend hundreds of dollars annually to clean your carpets & home -- then totally forget all the dirt in your duct system!

It never stops to amaze me how many people will get the carpets cleaned and not even consider their ductwork which is typically much dirtier. Since most duct systems contain enough sheet metal to completely enclose an average bedroom, imagine one whole room in your house totally caked with grime and you'll have a pretty good idea how much junk your duct system can contain.

### Isn't it time you breathed easier about your home's air quality?

For all the above benefits, and peace of mind that having your ducts cleaned right will provide you and your family, why not get it done now? We are so sure that you will be satisfied with the work -- <u>and results</u>, that we offer a money-back guarantee based on <u>your</u> satisfaction. Let **Vincent's Heating and Plumbing** make sure that your homes air system is clean and healthy! Just call **(810) 985-7103** to set up and appointment to get your air ducts cleaned and start breathing cleaner air. - Daniel Squires

P.S. Are you sure your clothes dryer vents are clean? We also offer clothes dryer vent cleaning using our RotoBrush Dryer Vent Cleaning system.

For more information visit us at VHPinc.com/ductcleaning

## Invest in Having Your Ductwork Cleaned & Have Your Clothes Dryer Vent Cleaned at No Extra Charge - a \$192 Value!

Schedule a free quote today. Ask for the "March Duct Cleaning Promotion"

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