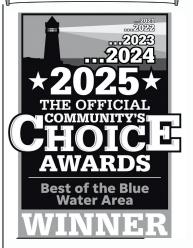
Vincent's Heating & Plumbing

VINCENT'S NEWS

The 'Van-Go' Gallery

OWNER'S CORNER

66 Years of Excellence!



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Did you know...

...that the popular notion that a blue colored flame in your furnace or boiler means that it is burning safely and efficiently is a myth? Learn more in the nearby article.

THROUGH MY EYES

I'll never forget the fall morning in the late 90's when I got the phone call from a family that had been poisoned by carbon monoxide from a furnace we serviced the night before. When I arrived the police and fire rescue were putting a child in an ambulance. Thank God everyone recovered, but I was shaken. As the father of three, I thought what if it was my family?

Continued Page 3



October 2025

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



In August we held a Carbon Monoxide and Combustion certification class in our training room. Pictured are some of our techs with the instructor at the whiteboard in front of the class.

Misinformation & Myths About Carbon Monoxide And Combustion - Part 1

Have you ever heard the myth that a blue flame in furnace combustion means it's burning correctly? This rule of thumb has been around forever and is still widely believed in the HVAC industry – from techs in the field, to industry guides that should know better. It's what I was originally taught. However, I learned in 2006 that this isn't true. (See the 'Through My Eyes' article.)

Thinking you can 'eyeball' a flame to know it's burning well is as unscientific as a mechanic tuning a car by listening to it.

Todav's good car mechanics use

Today's good car mechanics use computers, and similarly, HVAC

techs need to use a 'combustion analyzer'.

Before the 1980s, there were no commercially available instruments to measure combustion, and the early ones were bulky and impractical. As technology advanced, eventually combustion analyzers became more accessible and used in the field. So, how did the 'blue flame myth' come about long before these tools and their data were available?

I queried **ChatGPT -** a popular AI (Artificial Intelligence) application - "Where did the idea that a nice blue flame means that a natural gas furnace is burning efficiently

Continued Page 2

Misinformation & Myths ... (Continued from Pg. 1)

and safely come from?" It replied with a scientific theory entitled: "Technical Origins: **Chemistry & Physics of Flame** Color". It concluded with a 3part answer that is too long to share in this space but here are some 'facts' included in its response:

- 1) (With a 'blue flame) no soot or incomplete byproducts like carbon monoxide are produced, the flame appears blue, indicating efficient, clean burning."
- 2) Yellow, orange, or red flames indicate incomplete combustion, and often produce soot and carbon monoxide.
- 3) A blue flame shows that the air-to-fuel mix is balanced, combustion is efficient, and the furnace is operating safely and economically. A yellow or orange flame signals incomplete combustion and potential safety hazards.

ChatGPT replied with a great sounding theory, but

that's all it is, because it's wrong. Carbon monoxide is present in a 'blue flame'. We've been measuring CO in blue flames since 2006. In fact, CO is got its chastened reply: one of the important factors we measure to make certain your furnace or boiler is safe and use to adjust combustion and improve performance.

The myth of the 'blue flame' became an established fact because people relied on an untested theory and made it gospel.

ChatGPT and AI often pull information from the web. which can sometimes be inaccurate. The blue flame myth is so widespread that ChatGPT gave me this wrong answer in seconds. I corrected ChatGPT, explaining that its response was based on an outdated theory that combustion analyzer data has since disproved. I said it needed to 'up its game' about combustion. Then I watched the most amazing thing: for almost 2 minutes - a lifetime in computer processing – I saw all sorts of information sources that it was furiously checking flash across my screen until I

ChatGPT: You're right to call this out. Flame color is not a CO test, and a "nice blue" flame can still be making measurable carbon monoxide. The only way to know is with instruments. You're correct the "blue flame = no CO" idea is a myth. Real combustion safety relies on analyzer data, and proper air/fuel setup."

(I've posted the entire conversation thread as "2025-Sept-ChatGPT & the Blue Flame Myth.PDF" in our newsletter archive at www.VHPinc.com/gallery)

To make certain your heating equipment is safe and performing well, give us a call to schedule one of our certified Carbon Monoxide & Combustion Analysts to service your furnace or boiler.

- Daniel Squires

What Our Clients Are Saying ...



"Finally, no more cold showers!! Michael was able to take care of a major installation problem caused by another service company that gave us excuse after excuse. He was knowledgeable and professional and if he didn't know something for sure, he asked the other miracle employee, Marvin. I will ALWAYS call Vincent's from now on. Thank you!"

- Lisa Fox. Port Huron

Through My Eyes (Continued from Pg. 1)

Our tech had followed industry best practices and had years of experience. But he didn't know what to look for regarding carbon monoxide, a widespread issue in the heating industry I later learned. That day, I vowed to ensure our techs received the necessary training to prevent similar nightmare causing incidents from ever happening again.

And I did find such training and fulfilled my promise. But what I didn't expect is that by answering the question of how to keep our clients safer from CO, that I would also discover knowledge practically unknown in the HVAC industry and techniques that could potentially make furnaces perform better than when they were new, make furnaces last longer, and reduce or even eliminate some common breakdowns.

Our Eyes Were Opened To Secrets About Carbon Monoxide & Combustion

The training that I discovered not only satisfied my quest regarding carbon monoxide and furnace safety, but it also gave us the means to provide our clients with better heating performance and energy efficiency. Here's why: CO is created in the furnace combustion process. And understanding how to make a furnace safer regarding CO also provides the missing ingredient to turbo-charge furnace performance - new and old - by improving the combustion process

I was thrilled to discover this training: <u>not</u> <u>only would we be better able to keep our</u> <u>clients safer, we could also help them stay</u> <u>warmer and save money!</u> So, since 2006 we've invested in having all our plumbers

and HVAC techs attend a 3-day CO Safety and Combustion class to become Carbon Monoxide & Combustion Analysts. Then, every two years thereafter, we've sent them to a one-day refresher class to recertify.

When all our techs, regardless of their years of experience, took the initial training, everyone, including me, felt like a light had been turned on. So much of what we thought we knew about furnaces and combustion was totally 'turned on its head'. This is because there's so much misinformation and myths about carbon monoxide and combustion – see the nearby article for an example.

Further, as we started incorporating this training into our processes it so positively impacted the way we do things that every tech agreed that they would rather quit than go back to doing things the way we had before – and the way that HVAC techs and plumbers without this training still do! Less than 1% of all HVAC techs and even fewer plumbers in North America have the specialized knowledge taught in this training.

In August we again hosted this 3-day class and 1-day refresher for our techs. Between the cost of the training, technician wages, and job revenue lost by having our techs in training instead of in the field on jobs, it's a big investment for us. But it's a price I gladly pay to equip our techs with knowledge and skill to provide a better service – and even more important – to keep you and our other clients safer from carbon monoxide. I'm passionate about furnace and water heater safety and now you know why.

- Daniel Squires

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



Vincent's Heating & Plumbing Inc.

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Past issues are available in PDF format online in the Van Go Gallery at:

VHPinc.com/gallery by mid-month after

by mid-month after the newsletter arrives.

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Word Search - Homecoming

Alumni Band Celebration Р Cheers Corsage Ε Dance Fall Festivity J Ε 0 **Fightsong** D G G 0 S Float Football VK Game I **Homecoming** King 5 Parade В S PepRally Queen I Reunion School SpiritWeek Tradition Victory 5 G

Humor Section

What's the ratio of a pumpkin's circumference to its diameter?

> Pumpkin Pi

How do you fix a broken pumpkin? > With a pumpkin patch

Now that's good news!

"The Lord your God is with you, the Mighty Warrior who saves. He will take great delight in you; in his love he will no longer rebuke you, but will rejoice over you with singing"

-Zephaniah 3:17

Did you know?

<u>Seniors</u>, <u>pets</u> and <u>immune compromised individuals</u> are particularly vulnerable to carbon monoxide poisoning, as well as <u>children</u> due to their faster metabolism and smaller body size...

Yet in the fine print for the typical CO Alarm is a disclaimer that it may not provide adequate protection from carbon monoxide for members of this most vulnerable group?

Why? Because unless the CO level exceeds the UL Standard of 70 ppm for at least 1 and up to 4 hours the alarm won't sound! Unfortunately, that's too high for vulnerable individuals.

Consider these CO danger levels (parts per million):

-source National Comfort Institute

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	<u>US NIOSH</u> recommended 8-hour maximum workplace exposure.
	EPA standard for outdoors for 1-hour and a maximum of 1-time per year.
50 ppm	<u>US OSHA</u> recommended 8-hour maximum workplace exposure.
70 ppm	First alarm level for a store bought - UL 2034 approved - CO alarm.

This is when your CO
ALARM WILL
FINALLY
SOUND!

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 and then it can take up to 4 hours before the alarm is required to sound!

Regarding CO, <u>you're safer sleeping in a public parking garage</u> - which has a 25 ppm maximum allowable limit - than you are with a store-bought CO Alarm for protection!

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Turn over for real protection!

For Real Protection You Need the NSI 6000 * Professional Grade Low-Level CO Monitor & Log

The National Safety Institute professional grade low-level monitor & log senses CO levels as low as 5 ppm.

Infants, children, elderly, persons with respiratory or heart ailments receive little or no protection from deadly carbon monoxide with standard alarms.

At \$249, the NSI 6000 costs more than carbon monoxide monitors bought from retail stores, but when you and your family's safety is on the line, isn't quality more important than price?

Accurate, low-level CO detection requires more expensive components and quality control. The full-featured NSI 6000 Low Level CO monitor uses the same technology and sensors as in professional-grade CO analyzers used by carbon monoxide professionals, fire departments, and utilities.



The NSI 6000 Low-Level CO Monitor & Log is at Vincent's Heating & Plumbing

NSI 6000 FEATURES:

- Continuous Scan[™] mode indicates monitor is operating 24/7
- Digital display shows CO levels of 5 ppm+ (parts per million)
- Low Alarm 15 ppm-audible & visual every 8 seconds
- High Alarm 35 ppm-audible & visual every 4 seconds
- Crisis Alarm 70+ ppm-audible & visual every 2 seconds
- Bluetooth compatible comes FREE SMART PHONE APP that allows you to sync with your mobilte devices, store and review history and much more!
- 5-min. "Hush" button for levels below 70 ppm
- · Designed for wall installation or tabletop use
- Operates on replaceable CR123A 3V battery.
- 2-year limited warranty

Save \$40 off a NSI 6000 Low-Level CO Monitor

Reg. Price \$249 Now \$209 Enhanced Service Plan price after 10% discount: \$188.10

Free delivery with any service or maintenance visit.

Offer Expires December 31

<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.

Vincent's Heating & Plumbing 2650 Oak St, Port Huron

Are you currently being protected by a first generation <u>NSI 3000</u> Low Level Carbon Monoxide Monitor that you previously invested in with us?

The NSI 6000 Low Level CO Monitor is an updated and redesigned version of our popular NSI 3000 Monitor the we have been promoting for years. The updated version features a new, sleeker look, plus a new Bluetooth smart device app allows you to sync with your mobile devices, store and review history, and much more! Consider upgrading to the NSI 6000 - especially if your NSI 3000 has reached the five year limit of the electro-chemical CO sensor in it.

For more information about the NSI 6000 Low Level CO Monitor & Log scan the QR Code on the right.

BULLETIN: RECENT CHANGES IN THE TAX LAW MEAN THAT YOUR WINDOW OF OPPORTUNITY TO TAKE ADVANTAGE OF THE FEDERAL HEAT PUMP TAX CREDIT CLOSES ON 12/31/2025



- The majority of the current savings described in the above offer is a maximum \$2,600* federal tax credit that now expires this year. (* Up to \$2,000 for heat pump, \$600 for furnace)
- The remaining <u>front-end savings</u> is with an instant Amana S-Series Heat Pump factory rebate.
- The <u>back-end savings</u> are from the reduced utility bills that you will enjoy. The inverter technology increases energy efficiency by up to 30% or more to help lower your electric bill in the summer and your gas bill in the winter
- The Amana smart thermostat lets you control your unit with all of your smart devices - including voice control.

To take advantage of these savings before they're gone call Vincent's Heating & Plumbing at (810)-985-7103 and set up a free, no obligation quote to upgrade your HVAC system Payment options are available. www.VHPinc.com



Scan the QR-Code for more Information and to hear for yourself how much quieter an S-Series is:

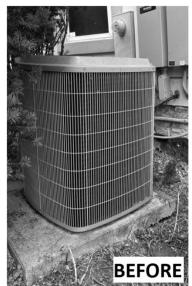


The Amana S-Series Heat Pump or AC looks great installed...

Here we replaced an AC unit with a heat pump. We don't worry about snow on the ground with an AC, but a heat pump must be elevated. This explains the stand it's on.

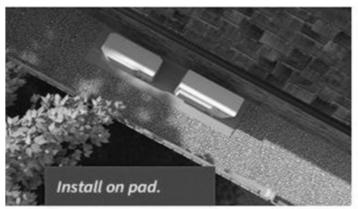
The Amana S-Series has a space-saving small profile that is less than 1/3 the size of a standard outside condenser.

Also, say goodbye to a noisy outdoor unit, you'll enjoy peace and quiet inside and out with an Amana S-Series heat pump or AC.





Here are more space saving configurations:















DON'T LET HIDDEN SEWER PROBLEMS TURN INTO A COSTLY DISASTER

Aging sewer lines often hide serious issues. If you've ever had a backup caused by tree roots, that's not just a nuisance—it's a warning sign: your sewer line is broken, and the problem will only get worse. Left untreated, small breaches grow, roots spread, and backups become inevitable. Repairs at that stage are messy, expensive, and often require tearing up your yard to dig out the line.

The smarter choice? **Catch problems early**—when they can still be fixed with far less disruption and cost. Get a Sewer Video Inspection.



USE THE <u>QR CODE</u> TO VIEW A 'BEFORE & AFTER' <u>SEWER VIDEO INSPECTION VIDEO</u>.

INCLUDES A SPECIAL OFFER TO LEARN HOW YOU CAN GET A FREE VIDEO SEWER INSPECTION FREE .



Marvin had to dig up and replace the line to get rid of this root mass.

Vincent's Heating & Plumbing (810) 985-7103 www.VHPinc.com

TURN OVER FOR ANOTHER SPECIAL OFFER

GET A FREE GAS LINE LEAK INSPECTION

WITH PURCHASE OF A FURNACE REPAIR OR MAINTENANCE

Our technician, Jeyson, is shown using an extremely sensitive electronic leak detector that is able to pinpoint even hard to find leaks. When you have us do a gas line leak inspection, we will check the gas lines to all your appliances and all of your (accessible) joints and fittings. Over time, the pipe sealant used at connections and fittings can dry out and be the source of a leak. It's also especially important to check gas shut-offs which can be prone to leaks. Having your gas lines periodically inspected for leaks is important for the safety of you and your family.

TO TAKE ADVANTAGE OF THIS OFFER ASK FOR THE "GAS LINE LEAK INSPECTION PROMOTION" WHEN YOU CALL AND SCHEDULE A FURNACE OF BOILER REPAIR OR MAINTENANCE VISIT.

CALL (810) 985-7103.





Word Search Solution October 2025 – Homecoming

