

OCTOBER 17, 2024

WELCOME TO THE WEBINAR ON

COMMON PROBLEMS – AND SOLUTIONS – FOR SELF-INSTALLED WOOD STOVES



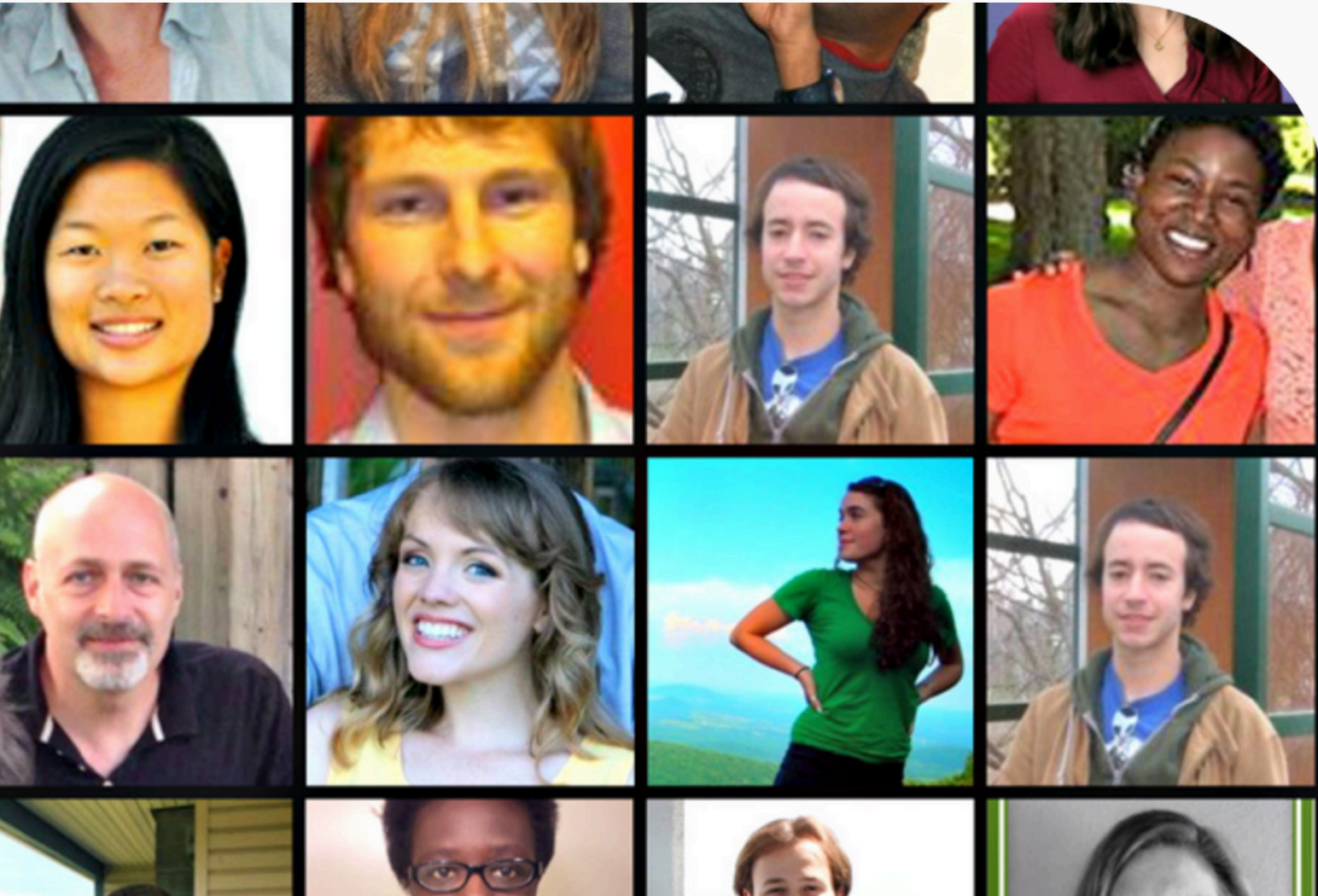
ALLIANCE

FOR GREEN HEAT

low carbon, renewable and local

ABOUT THE ALLIANCE FOR GREEN HEAT

PAST & PRESENT AGH STAFF & FELLOWS



OUR STRENGTH IS OUR PEOPLE!

- We are a small, independent non-profit that promotes renewable heat with an expertise in cleaner and more efficient wood and pellet heating.
- The majority of our funding now comes from the USDA Forest Service to support firewood banks that serve tribes and low-income communities. Other funding has come from the DOE, Osprey Foundation, NYSERDA, and other foundations.
- We are based in Takoma Park, Maryland with staff in Arkansas, Wisconsin and Wyoming. Founded in 2009, we are a 501(c)(3) tax exempt organization.



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PANELISTS



YVETTE AUBE
AIM CHIMNEY



MARK HUMPHREY
*NATIONAL FIREPLACE
INSTITUTE*



**DALE PINE &
BAMM BREWER**
ONE SPIRIT



BYRON SCHRAMM
*MIDTOWN CHIMNEY
SWEEPS*



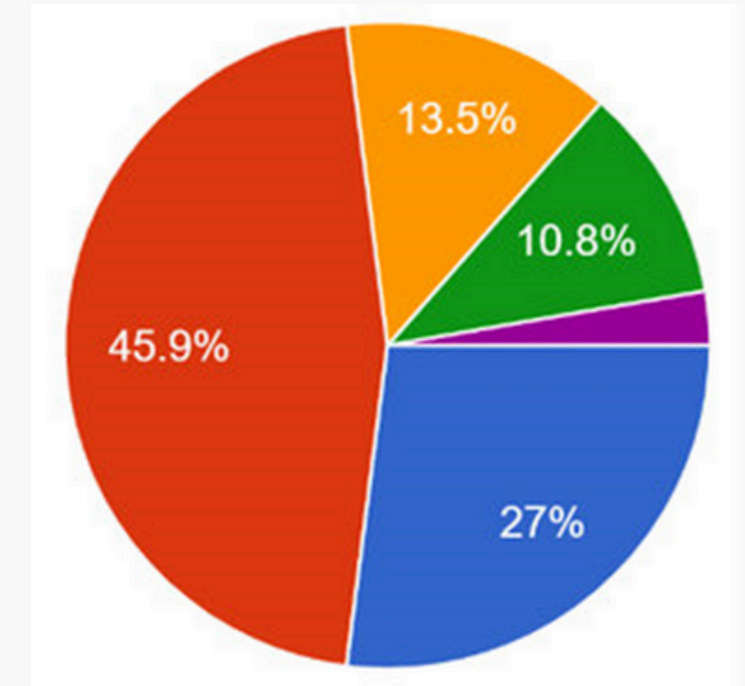
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WOOD STOVES: the least regulated HVAC appliance

Federal Solutions:

- DOE can fully integrate wood stoves into safety and health inspections during subsidized energy audits. DOE still declines to require states do inspections like they do on furnaces.
- The EPA can continue to integrate innovative install instructions in the next NSPS.
- Various federal agencies should include stove installers in energy job training programs, as we pivot from fossil fuels.

Informal poll: In counties requiring permits, are stoves usually better installed?

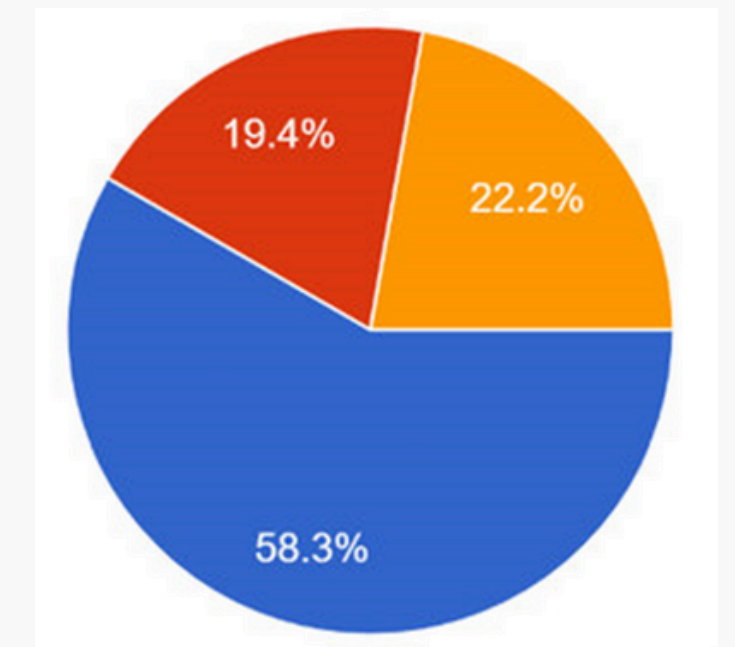


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STATE SOLUTIONS

- States are suing the EPA for stricter stove regulations while doing very little themselves (excluding Alaska).
- States and counties can:
 - require permits and inspections for stoves, like they almost always do for furnaces
 - require professional NFI installation like CO, OK & NJ
 - exclude new wood stove installs in densely inhabited areas
 - require stoves be inspected in energy audits (and repaired or replaced if they are not safe)
 - train building inspectors how to identify safe installs when homeowners pull a permit for one.

Informal poll: Are professionally installed stoves likely to result in less wood smoke inside the house?



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FIREWOOD BANK ASSISTANCE PROGRAM

Applications

1. New Applicant Grant
2. Start-up Grant
3. Renewal Grant

Applications Received: 64
Funds Remaining: \$176,209



Pikyanivi Wood Haulers – Warmth for Hopi & Tewa

Dry Wood Matters

Grant Requirements & Recommendations

- moisture meter (required)
- tracking wood moisture content
- plan for seasoning firewood

Grant Education

- partners with EPA Burn Wise Program
- resources on building storage for firewood (for both recipients and firewood banks)
- resources on the importance of seasoned wood for recipients



North Idaho Firewood Rescue

firewoodbanks.org



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SAFETY
WHERE EDUCATION
MEETS ACTION

JOIN OUR FIREWOOD COMMUNITY SAFETY INITIATIVE!



Options to Engage

Engage Wood Burning Households with Indoor Air Quality

- **Provide Low Cost PM2.5 Air Quality Monitors to Homes**
- **Record PM2.5 Concentrations and Wood Stove Activity**
- **Connect Indoor Air Quality to Health Risks and Stove Solutions**
- **Improve Access to Wood Stove Service and Chimney Cleanings**

Provide Smoke Detectors to Wood-Burning Households

- **Provide 10-Year Sealed Battery, Ionization Smoke Alarm to Homes**
- **Verify Proper Installation**
- **Educate on Best Wood Burning Practices**
- **Start Conversation About in Home Safeguards & Fire Prevention**



Access, Prevention, Long-Term Security

Safety Measures Prevent

- **House Fires**
- **Long term health consequences**
- **Excessive Fuel Use**



If you don't prevent fires who will?

AIM Chimney Sweep



Presented by

Yvette Aube

WETT Certified Chimney Sweep

Installer

Advisor

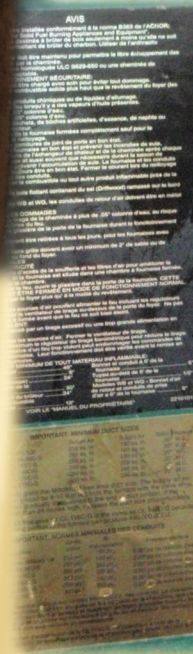
Inspector

WHAT WE FIND AT JOB SITES WHEN A HOMEOWNER DOES IT THEMSELVES



Chimney Joints not secured properly or repaired badly not replaced

Clogged vents as the homeowner thought he only needed to sweep the chimney not his furnace





Clearances to combustibles not observed when going thru a floor

Openings in brick chimneys not repaired when lining a chimney



Woodstoves installed in front of fireplaces with improper clearances and retrofit connections
This unit was actually **BACK VENTED** by the client when they cut a hole in the stove rear



Premade crowns installed without and mortar or bond break to the clay flue tile



But we installed the
bird screen

Does it matter if the chimney leans ?
We did install the liner for the stove





We were just trying to recover some heat



✘ Clearance Issues



Clearance recommendations unobserved nor adhered to during installations

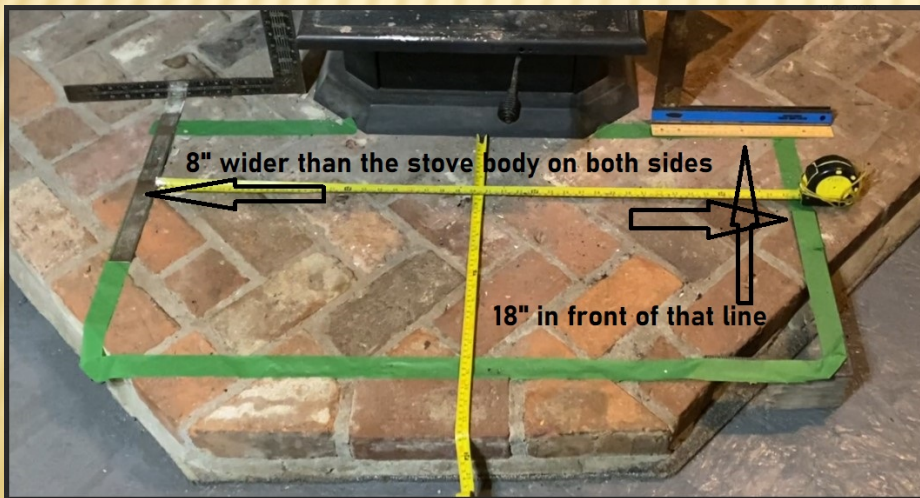
Chimney liners exposed within an attic chimney

Note the CHARRED wood beside the chimney

Ya ☹ they had a fire



HEARTH ERRORS



VENTING INSTALLATION ISSUES



Chimney Components



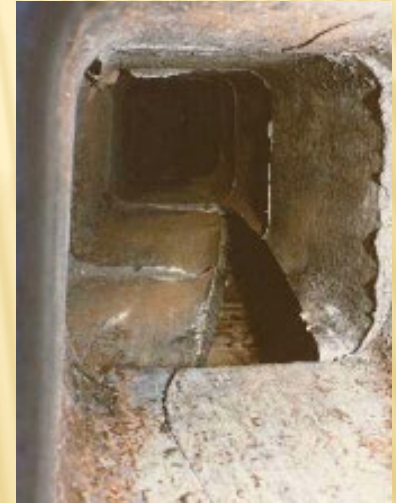
Chimney lengths require to be manufactured by the same manufacturer of the original system. Make and model must match exactly. Several chimneys in this complex have had additional lengths added which do not marry to the existing pipes cleanly. This results in a gap between the chimney lengths which could either allow smoke/flame to escape the confines of the system or allow excessive air into the system.

This gap can also cause instability to the vertical integrity of the system.



FIREPLACE INSERT AND STOVE ERRORS

Inserts into prefabricated fireplaces



Woodstoves vented into unsafe chimneys

No hearth extensions





Don't Let This Happen To You

LASTLY

Don't trust your installations to those who are not the EXPERTS in this field

Why risk your family's safety JUST TO SAVE A FEW BUCKS ??

Have all units installed by a Certified Chimney Professional Tech Team or

If YOU are going to attempt this yourself,

follow the manufacturers written instructions

and have the system checked once you are completed by a

Certified Installation Technician

WWW.WETTINC.CA



Search for a WETT Professional



Become WETT Certified



Learn More About WETT

WETT Certification Technician + SITE™ Basic Inspector

Code Compliance

Wood-burning Systems

SITE™ Inspection

Requires a verifiable declaration of at least 80 weeks industry experience, including at least 30 installations of wood-burning appliances for technicians and 30 sales of wood-burning appliances, signed by student, a signed letter of reference and a photo.

WETT Certification Chimney Sweeping + SITE™ Basic Inspector

Code Compliance

Wood-burning Systems

SITE™ Inspection

Chimney Sweeping

Requires a verifiable declaration of at least 80 weeks industry experience, including at least 30 sweeps of wood-burning appliances, signed by student, a signed letter of reference and a photo.

WETT Certification Advisor + SITE™ Basic Inspector

Code Compliance

Wood-burning Systems

SITE™ Inspection

Advisor: Requires a verifiable declaration of at least 80 weeks industry experience.

Advisor plus SITE™ Basic Inspector: Requires a verifiable declaration of at least 80 weeks industry experience, including at least 30 inspections of wood-burning appliances, signed by student, a signed letter of reference and a photo.

WETT Certification SITE™ Basic Inspector

Code Compliance

Wood-burning Systems

SITE™ Inspection

Requires a verifiable declaration of at least 80 weeks of field inspection experience, including at least 30 inspections of wood-burning appliances, a signed letter of reference and a photo

Once you successfully complete the above courses (final mark of 70% or higher for each exam), please submit your completed and signed declaration form, signed letter of reference — proving that you have accomplished the required **80 weeks of experience** outlined in your selected path — and your photo. You will receive your WETT certification in the mail within one week of the exams being received at the WETT National office.

THANKS FOR WATCHING

✘ Any Questions



Yvette Aube
Certified Chimney Technician
and
Your Chimney Chick





**NATIONAL
FIREPLACE
INSTITUTE**

Hearth, Patio and Barbecue Education Foundation (HPBEF) & National Fireplace Institute (NFI)

- HPBEF is a private 501©(3) nonprofit that promotes safe hearth product installation and use through training and certification.
- NFI certifies technicians and installers, ensuring public safety and credibility.
- Manuals and Exams include Core Knowledge, Gas, Woodburning, Pellet Specialists, and Hearth Design Specialist.
- NFI recognizes individuals who have successfully gained all three-fuel type NFI Certifications as Master Hearth Professionals (MHP).



HPBEF Copyright 2024

NFI Certification Process & Governance

- NFI governed by HPBEF Board of Governors, with committees overseeing various aspects.
- Certification value: Public safety, reduced callbacks, increased consumer confidence, and ability to perform work in some jurisdictions.
- Mission: HPBEF promotes safety and performance through education, training and certification to industry professionals. Our services provide a competitive edge and a level of expertise that lead to better business practices and profitability.
- Vision: We educate the people who safely bring you joy, comfort and warmth.

Moral and Legal Responsibilities

- Moral responsibility: Proper installation crucial for preventing hazards.
- Legal repercussions: All involved parties may face legal action in case of incidents.
- Adherence to codes, manufacturer instructions, and quality materials is key.

Ensuring Safety through Standards

- Reference manuals and training are based on NFPA standards, International codes, and ANSI standards.
- State and local codes, derived from model codes, must be strictly followed.
- Importance of understanding and adhering to local codes for installers.



HPBEF Copyright 2024

Elements of a Legally Defensible Certification

- A professional job analysis is conducted
- Reliable exam based on psychometrically accepted statistical methods
 - The exam is linked to a defined body of knowledge
- Establish passing score (Angoff Method)
- Credential maintenance
 - Recertification required

NFI's Psychometrician:

- Facilitates:
 - the design of the job analysis
 - analysis of the results
 - exam blueprint based on a job analysis
 - the writing of exam questions
 - “cut/passing scores” for the exams
- Advises NFI on exam policies and procedures
- Ensures that scores are sufficiently reliable

Continuing Education Units (CEUs)

- Continuing education classes are offered at various industry events throughout the year.



HE@RTH
Online Training

NFI Advocate

NATIONAL
FIREPLACE
INSTITUTE



CERTIFIED

www.nficertified.org

We recommend that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).



The NFI Advocate Program represents the industry's commitment to promoting excellence in the planning and installation of hearth systems.

- Demonstrates commitment to the National Fireplace Institute
- Demonstrates commitment to industry professionalism
- Demonstrates commitment to public safety
- Helps establish hearth products installers as a recognized trade
- Assures customers that the installers have passed a rigorous exam based on the knowledge needed for quality installations.
- Increases professional knowledge and confidence that can lead to better planning and installation of products

NFI Advocates suggesting or recommending NFI certified professionals



Ambiance Fireplaces LLC
American Energy Systems
American Fire Glass
Archgard Industries Ltd.
Bernard Dalsin Manufacturing Co.
Big Woods Hearth Products
Blaze King Industries
Century Heating
Drolet
DuraVent
Element4 Inc.
Empire Comfort Systems Inc.
Energex, Inc.
Enerzone
Flame Energy
Firegear Outdoors
Hargrove Manufacturing Corp.
Harman Home Heating
Hearth & Home Technologies, Inc.
Hearth Classics
Hearth Products Controls Co.
Hestia Heating Products
Hitzer Stove, Inc.
HearthStone Quality Home Heating Products, Inc.
ICC Industrial Chimney Company
Innovative Hearth Products
J. A. Roby Inc

Jotul North America, Inc.
Kozy Heat
Mason-Lite Fireplaces
Mendota Hearth Products
Morso US LLC
Napoleon/Wolf Steel Ltd.
Osburn Manufacturing
Olympia Chimney and Venting
Pacific Energy Fireplace Products, Ltd.
PSG Distribution
Regency Fireplace Products/FPI
Rinnai Corporation
Robert H. Peterson Company
Solax, LLC.
Selkirk Hearth
Sherwood Industries Ltd.
Sierra Products Inc.
Stove Builders International
Supreme Fireplaces
The Outdoor Plus
Thelin Hearth Products
Travis Industries, Inc.
U.S. Stove Co.
Valcourt
Valor/Miles Industries, Ltd.
Vermont Castings Group

Homeowner Resources

QUICK SEARCH:



Find an NFI
Certified Specialist



Byron Schramm



Company : Midtown Chimney Sweeps

Address :2805 Wilderness Pl,Suite 900,Boulder,CO,80125

Distance : 37.27 Miles

Specialties : Gas Specialist,Pellet Specialist,Woodburning Specialist

Phone : 8447933766

Fax : <http://www.midtownsweeps.com>

Website : <http://www.midtownsweeps.com>

Certified vs DIY

- Hiring a certified installer
 - Proof of knowledge of the product type and the standards and codes required to install products
 - Higher cost of installation
 - Warranty and insurance coverage
- Doing it yourself
 - Requires Research and careful review of the installation instructions
 - Lower cost of installation
 - Warranties and insurance may not be covered



WOOD STOVES ON THE PINE RIDGE RESERVATION

**Presented By Ogalala Lakotans:
Bamm Brewer & Dale Pine**



Houses are rural & concentrated in small communities spaced 20-30 miles apart.

Often times multiple generations share a home, elders are most often left to tend to the fire at home.

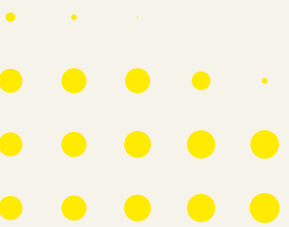
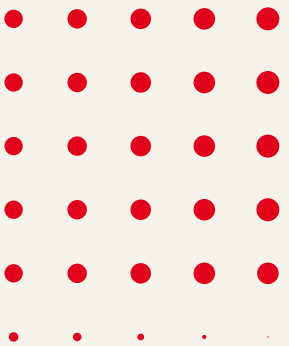


**Family and
Community
Matters**





Stove condition varies, however heating is essential. We replace or improve the most dangerous stoves when we find them.



The Danger of Self-Installed (or Improperly-Installed?) Fireplaces and Stoves



Sweep | Inspect | Trust

October 17, 2024

Byron Schramm

NFI Certified Wood Specialist

NFI Certified Pellet Specialist

NFI Certified Gas Specialist

Certified Chimney Professional (NCSG)

FIRE Certified Chimney Inspector

City and County of Denver Licensed Mechanical Contractor

Founder, Midtown Chimney Sweeps Franchise, operating in 15 states

Second/Third generation in the fireplace installation business



There are three main concerns with solid-fuel and gas-burning appliances:

- **Efficiency.** The better the design the less energy we waste.
- **Emissions.** The better the design the less smoke pollution we emit into the world.
- **Safety.** Putting a hot fire in a wood-framed house is a recipe for problems if not done properly. A structure fire, however small, costs money to extinguish and money to correct, and pollutes the atmosphere.



Fireplace installers are Keepers of the Flame

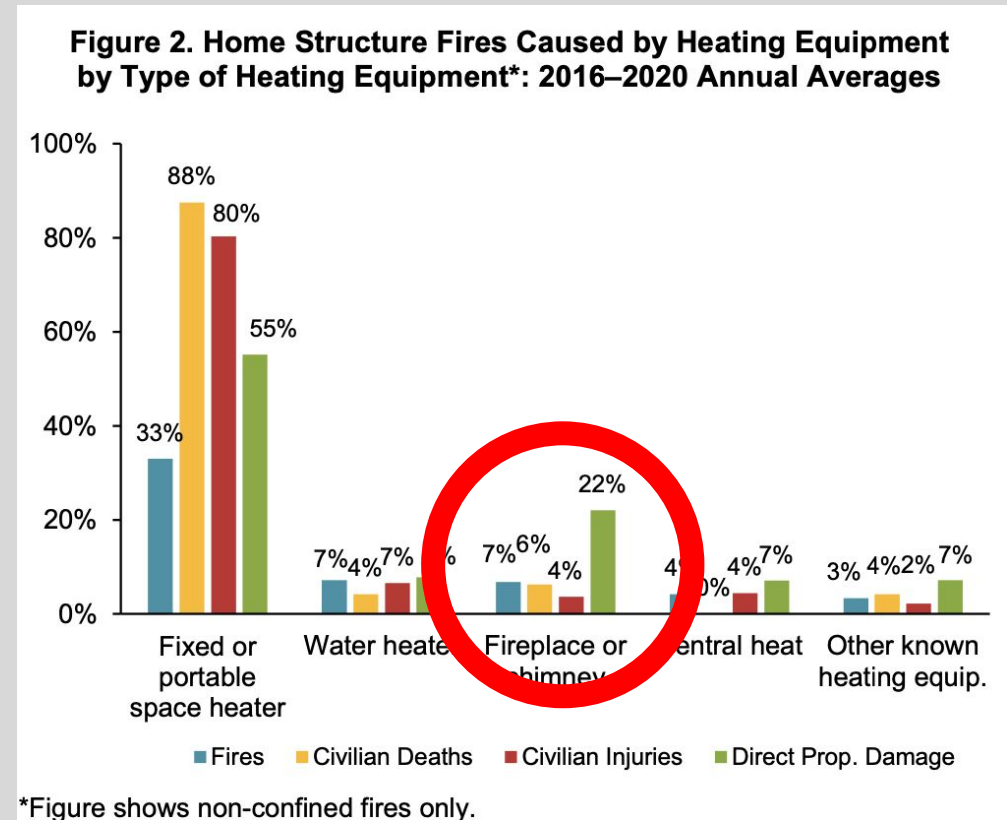
This image is a properly installed wood burning fireplace installed inside of a typical wood-framed American home.

The German Chimney Sweep school gasped audibly when I showed this image to them last October in Ulm.



44,210 home structure fires caused by heating equipment in 2016–2020.

3,080 fires (7% of the 44,210) were caused by fireplaces/ chimneys



Home Heating Fires

Richard Campbell December 2022

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Incorrect installation is **THE** concern

- *Incorrect installation* is **THE** concern, no matter **WHO** has performed the work.
- A self-installed home heating appliance is not the concern to me
- We see good *and* scary craftsmanship in all the states in which our franchise team members operate.
- Hear this testimony from a recent survey response on this topic:



"I am homeowner, installed my wood stove myself. I got a permit and a city inspector reviewed and approved my installation.

The city inspector said

it was the best installation he had seen

and asked me if he could bring professional installers over to my house because he was tired of reviewing so many bad installations and he wanted them to see what "right" looked like. I told him, I just read the directions and followed them.

He said, I wish all the "professionals" would simply do the same."



Darwin Award: Self- Installation Images



Darwin Award: Self- Installation Images



Single wall pipe requires 18in clearance, here we have 2in clearance.

Horizontal run instead of vertical.



Are homeowners allowed to install their own fireplaces and stoves in the USA?

- Yes.
- Hiring a professional is (apparently) optional.
- Hiring a professional is no guarantee of quality because there are no required or easily accessed training or certification processes for entering this industry.
- NFI certification is “recommended” by manufacturers, but I have rarely had anyone check my credentials.
- Permitting is required in most cases, but it is a toothless tiger- there is no enforcement of permitting by the local municipality.



How to Solve the problem for Homeowners?

- Make it easy find a pro.
- Make it easy to get a permit, but make the inspection rigorous.
- Make the government or insurance companies require annual sweeping, which requires an annual certification, which requires rigorous training.
- Make “trusting a pro” really mean something (more on this at end)

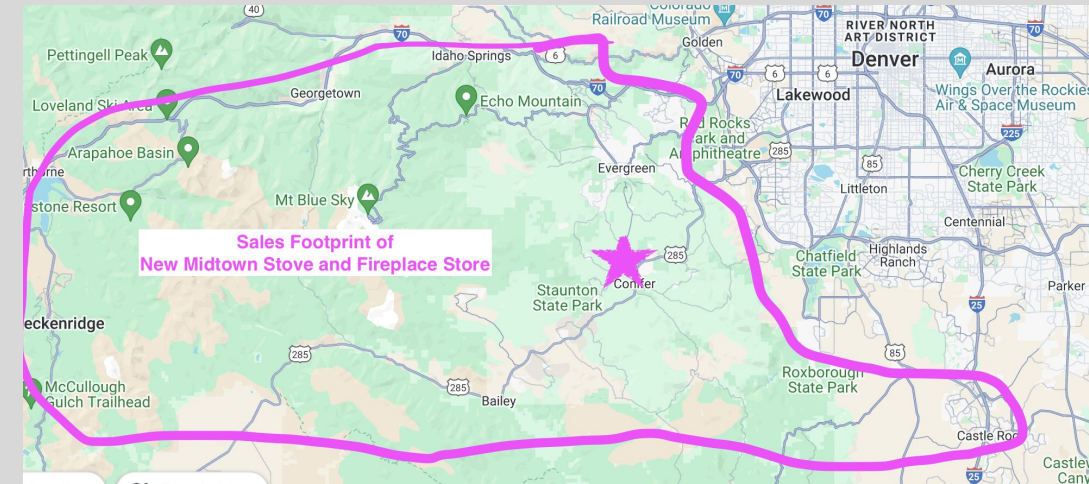


How to Solve the problem for the Pros?

- Make it easy to access good training.
- Make our certifications mean something.
- Using digital video and photo tools Midtown Chimney can advise and consult with clients remotely before we drive.



How can the Pros can help solve this problem?



- Intentionally serve the remote pocket communities.
- Using software we can group jobs together to make it affordable- still 50% higher, but we *can* be hired in these remote pocket communities.
- We do get referrals from pocket communities.
- You can't easily stop the bad apples, but you can be a good apple yourself!

Youtube has got us thinking we can do nearly anything...

A public warning on a fireplace liner manufacturer's website:

“Chimney Liner Installation Is Not A DIY Task.

In today's internet-driven world, there are websites trying to convince you that chimney liner installation is an easy do-it-yourself task...”

http://homesaver.com/content/homesaver_liner/diy.aspx



YouTube Search

12:34 / 22:18 · shingle roof >

How to install a wood burning stove DIY step by step

The Little Pallet Farmhouse
9.95K subscribers

Subscribe

1.7K

Share

Download

254K views 2 years ago

**2023 UPDATE!! In this video at 22.18mins you see Caleb put the stove flashing ontop of the shingles. This was incorrect. It should go underneath the shingles. You can see the follow up video we did here [redacted] We made a mistake!!! Wood stove pipe ... where he removes the shingles after winter to correct this mistake!!! more

Some certification is better than none...

Manufacturers all place a “we recommend that you use a certified person” statement in their installation manuals.



2 Getting Started

A. Design and Installation Considerations

1. Appliance Location

NOTE: Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation.

Consideration must be given to:

- Safety, convenience and traffic flow.
- Placement of the chimney and chimney connector.
- If you are not using an existing chimney, place the appliance where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.
- Installing an optional outside air kit would affect the location of the vent termination.

NOTE: Locating the appliance in a location of considerable air movement can cause intermittent smoke spillage from appliance. Do not locate appliance near:

- Frequently open doors
- Central heat outlets or returns

Since pellet exhaust can contain ash, soot or sparks, you must consider the location of:

- Windows
- Air Intakes
- Air Conditioner
- Overhang, soffits, porch roofs, adjacent walls
- Landscaping, vegetation


When locating vent and venting termination, vent above roof line when possible.

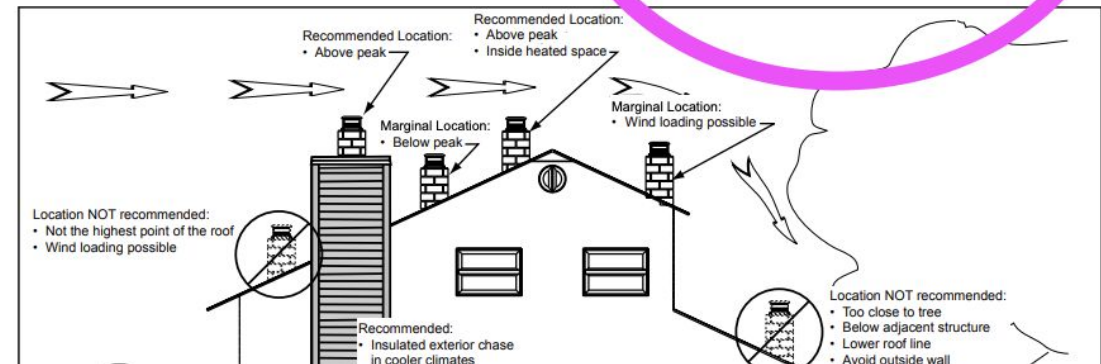
WARNING

Risk of fire
Damaged parts could impair safe operation.
Do NOT install damaged, incomplete or substitute components.

myhbt FACTORY training

Installation and service of this appliance should be performed by qualified personnel. Hearth & Home Technologies recommends HHT Factory Trained or NFI certified professionals.






How helpful is getting a permit to ensure safety?

- Inspectors are not trained or certified in fireplace installation.
- Because of legal immunity, inspectors and their associated government agencies are not held liable for incompetency.
- Often inspectors miss things. In California they missed the fact that a fireplace vented into a wood framed attic and never came out the roof...
- But last week in Colorado I experienced a very detailed mechanical inspection!



 Douglas County Building Division 100 Third Street Castle Rock, CO 80104		Permit#: 24-15824 Date Issued: 10/15/2024 Time Issued: 11:58 AM
MECHANICAL PERMIT		
The submitted permit will be subjected to the requirements listed on the second page.		
Mechanical Contractor:	MIDTOWN SWEEPS INC - BYRON SCHRAMM - 10162 WILDFIELD LANE	Electrical Contractor: N/A
Registration Number:	MA110470	Registration Number:
Primary Phone:	(661) 886-5028	Primary Phone: () -
Fax Number:	() -	Fax Number: () -
Email Address:	miya@midtownsweeps.com	Email Address:
Address:	10162 WILDFIELD LANE LITTLETON, CO 80125	Address:
Plumbing Contractor:	N/A	
Registration Number:		
Primary Phone:	() -	
Fax Number:	() -	
Email Address:		
Address:		
Job Address: 8504 E STATE HIGHWAY 86 FRANKTOWN		
Mechanical Work Only:	Yes	*Only one Type of Structure and one Type of Work is allowed for each Mechanical Permit*
Type of Structure:	Primary Residence	
Type of Work:	Range/Stove	*Permit valuations shall include total value of all work, including materials and labor. If upon inspection our staff determines that the work is undervalued, you will be assessed additional fees.*
Water Heater Type:	N/A	
Electrical Wiring/Rewiring:	No	
Gas Utility Provider:	N/A	
Valuation:	\$26,894.00	
Permit Fee:	\$411.45	
*Additional Details of Work:		
Applicant Comments: Like for like replacement gas insert (Regency Santa Monica Pier 60). Gas and electric are already present. Old unit has 42k BTU, new unit has 39k BTU.		
<small>*Due to limited space, not all Additional Details of Work may be displaying</small>		

Looking around the World... the US Chimney Certifications Lack.. well.. Umph.

Neither US Chimney sweep nor US Fireplace installation certifications require what other first world countries require:

- Physical training on the tools or the fireplaces
- Classroom training on the materials
- An exam of the individual's physical work in the field
- Good online reviews from customers
- A customer complaint handling process
- Proper minimum insurance being met



Germany- 16 Training Schools

3 years of PT classroom and field experience are required of German Chimney sweep students.

Here students discuss combustion gas analyzer tool results at the on-site residential apartment used to practice real-world flue diagnosis issues.

Ulm, Germany



HETAS- UK Certification for Chimney Sweeps and Fireplace Installers

Over 13 rigs in the hands-on training center are required to be in place before a training center can be opened.

8-32 hours of classroom instruction are also required. HETAS Cert.

Manchester, England



Conclusion

- Good stove installation reduce structure fires
- Chimney professionals are the keepers of the flame.
- We can learn from others who have tackled industry challenges- They train their people.
- We can be inspired to move forward using the solutions which fit us best- Train our inspectors.
- Byron Schramm
- Byron@midtownsweeps.com
- 661-886-5028



We believe in protecting our neighbors' lives, families, and homes by caring for their chimneys and fireplaces.

SWEEP | INSPECT | TRUST



There will be a lot of EPA people.

In the meantime, can we figure out a topic/title for your presentation? It would be about 15 - 20 minutes, and slides are good. Then Q&A.

The overall goal is to talk about common dangers of self-installs, and check and balances to avoid them.

Getting a permit and an inspection is next best thing to having a pro install, I assume?

Your experience with different states is also very appealing.

Would you know how often a county inspector would be able to spot dangers of a bad install?

I assume that is hit or miss. Could you talk about this, and maybe throw in some European examples?



What is the diff between a homeowner install and a pro... if the pro has no required hands on training book training?

Does this argue for more bureaucratic restriction of installation?

Right now in US it is “Recommended...” on the first page of the installation manual of almost all brands (except HHT family of brands)

How do you know if someone is reputable?

How could we define reputable if the federal govt does not recognize a single installation training program or exam?

If installations can be done seamlessly without permits?

If installations are not flagged to insurance companies.

