

Combustion Air, Venting, Efficiency and Carbon Monoxide (CO)

COURSE DESCRIPTION

Energy efficient home improvements — such as adding more and/or better insulation, sealing air leaks and installing more efficient appliances — have an effect on the venting and combustion air of oil and gas appliances. Participants will learn how to properly vent combustion gases and how to make provisions to ensure there is adequate combustion air. If these items are not addressed properly, serious health and safety issues, including Carbon Monoxide (CO) poisoning, may result. This class will cover the National Fire Protection Association (NFPA) guidelines regarding combustion air and lead the participants through “confined space” calculations and how to overcome inadequate combustion air situations.

The course also covers the effects that high-efficiency heating systems have on chimneys and explains how to correct potential problem situations before they arise. The course will also review the need for chimney liners with certain types of new equipment. In addition, draft regulation and alternative venting strategies, such as direct venting and power venting, are explained in detail. Participants will also learn troubleshooting tips, proper combustion testing procedures, what steady state efficiency does and doesn't mean, and the adjustment of oilheating systems for maximum efficiency and safety.

Building Performance Institute (BPI), North American Technician Excellence (NATE), and National Oilheat Research Alliance (NORA) have approved this course for continuing education credits (CEUs).

Prerequisites:

- Basic reading skills (Grade 8-9 level)
- Basic HVAC experience is recommended, but anyone can attend

Schedule:

Combustion Air, Venting, Efficiency, and CO consists of 8 hours of classroom instruction, including verbal tests after each major section of the program. Total BPI CEUs per course is 4.0. Total NATE CEUs per course is 8, and NORA recognizes NATE CEUs.

NYSERDA's Workforce Development Program offers energy efficiency and building science courses through training partners across New York State. This training is recognized by the Building Performance Institute (BPI), National American Technician Excellence (NATE) and National Oilheat Research Alliance (NORA).

To register for Combustion Air, Venting, Efficiency and Carbon Monoxide (CO), please contact Sue Montgomery Corey, or call 518-251-2525 or email suemc@capital.net

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COURSE DESCRIPTION *(continued)*

Training Topics:

- Basic Fundamentals of Draft
- Draft Regulators
- Why Chimney Lining?
 - Increased Efficiency
- Low Stack Temperatures
- Condensation
 - Standard Venting Materials
- Examples of Chimney Problems and Their Solutions
- Combustion Air
- Power Venting
 - Negative Pressure
 - Non-condensing
 - Vent Material
 - Selection and Set Up
 - Combustion Air and Makeup Air
- Direct Venting
 - Positive Pressure - Non-condensing
 - Stainless Vent Materials
 - Terminal Locations
 - Installation Procedures
 - Common Installation Errors
 - Proper Set Up
 - Positive Pressure - Condensing
 - PVC Vent Materials
- Combustion Efficiency, CO and Energy Savings
 - Proper Combustion Testing Techniques
 - “Normal” Results
 - Demonstrating Savings by Upgrading to High-Efficiency Systems

