

# ADVANCED HVAC EDUCATION & TRAINING



Leading the Industry in  
High-Performance HVAC™

**Deliver Optimum Combustion Performance**

## Combustion Performance & CO Safety Certification Program

Without conducting full combustion and carbon monoxide (CO) diagnostics, there is no way of knowing whether an HVAC system is safe or efficient. Get the technical knowledge you need to improve customers' system performance, prevent carbon monoxide hazards, and increase profitability. Then use that knowledge to perform combustion performance and safety tests.

### **Top 10 Skills You will Learn by Taking this Class**

1. Measure ambient carbon monoxide levels
2. Learn the corrective actions to take based on ambient carbon monoxide levels
3. Identify common sources of carbon monoxide
4. Determine proper combustion and draft test locations
5. Measure carbon monoxide, oxygen, and temperature in flue gas
6. Measure draft pressure
7. Determine field-measured performance and efficiency of installed equipment
8. Accurately measure equipment and system temperatures
9. Uncover and identify specific mechanical defects
10. Discuss potential repairs and adjustments to improve safety and efficiency

**LEARN TO:** Improve System Performance, Prevent CO Hazards, and Increase Profits



# Combustion Performance and Carbon Monoxide Safety Training

## In this three-day certification class, HVAC professionals will learn how to:

- Identify common sources of carbon monoxide and measure the ambient carbon monoxide levels
- Uncover combustion air and venting defects
- Verify equipment safety
- Repair and make adjustments to improve safety and efficiency.

## WHO SHOULD ATTEND?

- Field Technicians and Installers
- Owners and Managers
- Service & Installation Managers
- Sales Professionals
- Energy Raters and Comfort Advisors

## BENEFITS

- Get the knowledge you need to provide cutting-edge combustion and safety services to your customers on every installation and maintenance call
- Receive the NCI CO/Combustion Analyst Certification, the most recognized certification of its kind in the industry, when you successfully pass the certification exam on Day Three
- Learn the steps necessary to implement cutting-edge methods into your everyday business for greater efficiency and profitability
- Benefit from over 40 years of combustion experience from the country's leading combustion experts
- Leave with a full understanding of the combustion process and how to address CO hazards in homes and businesses.

**Register now and discover the High-Performance HVAC™ Difference!**

**For more information, call 800-633-7058 or visit [NationalComfortInstitute.com](http://NationalComfortInstitute.com)**







## AGENDA:

### Day 1: CO Safety Testing & Diagnostics

- Introduction to combustion performance
- Proper combustion testing locations
- Using safety and combustion test instruments
- CO sources, levels, and protocols
- NCI Combustion Performance Standards
- Effects of combustion issues on energy efficiency
- Field-measured efficiency
- How to diagnose fuel and mechanical problems

### Day 2: Combustion Performance & Diagnostics

- Troubleshooting combustion air problems
- Draft testing
- Diagnosing venting problems
- Seven common diagnostic issues
- How to use the combustion troubleshooting chart
- Combustion diagnostic procedures and reports
- Combustion repairs, adjustments, and upgrades
- Makeup air sizing and systems
- Barometric and spill switch upgrades

**CO certification helps you save lives and opens the door to new sales opportunities and greater income.**

### DAY 3: CO/Combustion Review and Certification

- Natural draft water heat repairs & adjustments
- Induced draft furnace repairs & adjustments
- Condensing furnace repairs & adjustments
- Natural draft boiler repairs & adjustments
- Hands-on exercises and practice
- Certification exam

### NCI's Training and Certification Package Include:

- Course workbooks, combustion troubleshooting chart, along with many useful NCI report forms and procedures
- Certificates and Wallet cards upon passing certification exams and field testing
- 30 days of unlimited toll-free support



**OFFER  
HOMEOWNERS  
Safety & Energy  
Efficiency  
Solutions That  
Really Work**

Combustion  
Performance and  
CO Safety  
Certification  
Program



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## Who is NCI?

**National Comfort Institute, Inc. (NCI)** is the world leader in HVAC System Performance and Air Balancing training. We created the industry's best practices, processes, and forms and have been teaching them for decades.

What makes NCI's approach different? We show you how to thoroughly test and diagnose the system using practical, easy-to-follow methods so you'll know exactly what to do to provide your customers with optimum comfort and energy efficiency.

NCI coined the phrase "High-Performance HVAC™", a unique approach to managing a contracting business through accountability and measurable results. During the past two decades, NCI has trained and certified more than 25,000 HVAC industry professionals. For more information about NCI, please call 800-633-7058 or visit [www.nationalcomfortinstitute.com](http://www.nationalcomfortinstitute.com).

### Additional Educational Opportunities from NCI:

- Residential HVAC System Performance & Air Balancing
- Introduction to Hydronic Testing, Adjusting, & Balancing
- Large Commercial Balancing (National Balancing Council)
- Airflow Testing & Diagnostics Implementation
- Commercial HVAC System Performance
- Duct System Optimization
- Commercial Air Balancing
- NCI Online University



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to Learn More  
and Register



Courses Qualify for:  
NATE, BPI & Most State CEUs