



## National Air Compliance Training Program

### *Theory & Application of Common Air Pollution Control Devices*

Course: NACT 299 | June 3-5, 2025 | Online Only

#### Proposed Agenda

##### Day 1

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#### Basic Concepts

- 9:00 Course Introduction
- 9:10 Basic Concepts
- 10:45 Capture and Control

#### Control of Particulate Emissions

- 11:30 Introduction to Particulate Matter
- 11:45 Separators
- 12:00 Break for Lunch
- 1:00 Baghouses
- 2:30 Wet Scrubbers
- 3:30 Adjourn

##### Day 2

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#### Control of Particulate Emissions

- 9:00 Electrostatic Precipitators

#### Control of Volatile Organic Compounds

- 10:30 Introduction to Volatile Organic Compounds
- 10:45 Flares
- 11:30 Thermal Oxidizers
- 12:00 Break for Lunch
- 1:00 Refrigerated Condenser
- 1:30 Absorption
- 2:00 Adsorption
- 3:30 Adjourn

##### Day 3

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#### Control of Carbon Monoxide

- 9:00 Introduction to Carbon Monoxide
- 9:15 Carbon Monoxide Controls

#### Control of Acid Gases

- 9:30 Introduction to Sulfur Oxides and Nitrogen Oxides
- 9:45 Acid Gas Controls
- 12:00 Lunch
- 1:00 Parametric Monitoring
- 2:00 Group Exercise / Test Review
- 3:30 Adjourn



**NACT 299: Theory & Application of Common Air Pollution Control Devices**

Class Length: 16 hours (3 days / 5½ hours each day)

CEU: 2

**Who Should Attend**

This is an introductory course designed for agency inspectors, permit writers, and regulation developers who have the responsibility to review air pollution control devices.

**Learning Objectives**

This course is designed to give attendees a basic understanding of the different types and operating characteristics of air pollution control devices that are available for particulate matter, volatile organic compounds, carbon monoxide, acid gases, and hazardous air pollutants. Course topics include:

- Background on ideal gas law and capture and control of air pollutants;
- Particulate controls, including separators, fabric filters, scrubbers, and electrostatic precipitators;
- Volatile organic compound controls, including minimization, oxidation, condensation, adsorption, and absorption;
- Carbon monoxide controls, including minimization, catalysts, and oxidation;
- Acid gas controls, including prevention, absorption, and adsorption; and
- Parametric monitoring of air pollution control equipment.

**Instructor Bio:**

Andrew D. Shroads, QEP has almost 26 years of experience in air pollution control, working in the Weirton Steel Corporation Environmental Control Department, as an inspector for the Cleveland Division of Air Quality, and as a consultant for regulatory agencies and private clients. He helps local, state, tribal, and federal government agencies develop air pollution control requirements and helps industry comply with air pollution permit and regulatory requirements. He is currently working as the environmental manager for a manufacturing facility in Ohio, developing air pollution control requirements for the state of New Jersey, and assessing the air quality impacts from a federal site in New Mexico. He also develops and teaches air pollution control training programs to private clients and government agencies. In his spare time, he researches the history of air pollution control.