LADCO | LAKE MICHIGAN AIR DIRECTORS CONSORTIUM

VOC Control Devices

Virtual Instructor-Led Training — Agenda

Based on EPA PERM 140 (formerly NACT 284)

Date: Thursday, August 20, 2026
Time: 9:00 a.m. – 3:00 p.m. Central
Format: Online webinar/Zoom

Time (CT)	Topic
9:00	**Welcome, introductions & pre-course quiz**
9:20	VOC Calculations
9:50	Capture, Control, Containment & Pollution Prevention
10:15	Adsorption Devices
10:45	*Break*
10:55	Absorption Devices & Scrubbers
11:25	Condensation Devices
11:50	*Lunch*
12:20	Oxidation Devices (thermal, catalytic, RTO/RCO, flares)
12:55	Biological Treatment / Biofilters
1:15	*Break*
1:25	**Case Study / Worked Example — emission stream selection, control efficiency & DRE, troubleshooting**
2:20	Inspection Techniques
2:45	**Post-course quiz, wrap-up & Q&A**
3:00	*Adjourn*

All times are U.S. Central. Short breaks and a 30-minute lunch are built into the schedule. Agenda topics and timing may be adjusted slightly to accommodate participant questions and discussion.

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Learning Objectives

Upon completion of this course, participants will be able to:

- Describe the purpose and regulatory role of VOC control devices.
- Identify and explain how common VOC control technologies operate — including thermal and catalytic oxidizers, carbon adsorption, absorption/scrubbers, condensers, flares, and biofilters.
- Select appropriate control devices based on emission-stream characteristics and process conditions.
- Calculate and interpret control efficiency and destruction and removal efficiency (DRE).
- Apply monitoring, recordkeeping, and reporting requirements for permitted VOC control devices.
- Recognize operational, maintenance, and safety considerations for VOC control systems.
- Evaluate compliance issues and troubleshoot common performance problems.

Instructor's Bio

Ashraf Aly Hassan, Ph.D., P.E., is Principal of Convironment, LLC, and the instructor for this VOC Control Devices course. A licensed Professional Engineer with a doctorate in environmental engineering, he specializes in air pollution control technologies, with particular expertise in the design, selection, and performance evaluation of VOC control systems — including thermal and catalytic oxidation, adsorption, absorption, condensation, and biological treatment. His work bridges the engineering fundamentals and the regulatory framework that govern how air agencies permit and evaluate these devices, and he brings that practical, compliance-focused perspective to training regulatory air program staff.