

WESTAR Council

Monitoring Compliance Testing & Source Test Observation

June 4-6, 2025

IN-PERSON TRAINING

REGISTRATION DEADLINE:

Friday, May 2, 2025

State of Utah DEQ
Multi-Agency State Office Building
Rm: 1020 A&B
195 North 1950 West
Salt Lake City, UT 84116



TO REGISTER

1. Log onto EPA's AirKnowledge and create a profile, or log onto your existing AirKnowledge account:
<https://airknowledge.csod.com/login/render.aspx?id=airknowledge>
2. When you complete your profile, you will receive a confirmation e-mail to activate your new account. It may take several minutes before receiving the email.
3. Once activated, log into your account.
4. Click the "Instructor Lead Training Calendar" link under the "My Training" tab.
5. Search the calendar for the training date(s). On the calendar you will see a course description. Hover over the text for additional information.
6. To register click the course title link.
7. In the lower righthand corner of the page you will see a "Request" button. Click it.
8. At this point you have requested a seat in the training. Because demand for WESTAR sponsored training frequently exceeds availability, all registrants are placed on a waitlist.
9. You will receive an email from Jeff Gabler confirming your request.
10. WESTAR attempts to accommodate all requests but at times it may be necessary to prioritize attendees.

WEDNESDAY, JUNE 4, 2025

8:30 am Welcome & Introduction

TOPICS DEALING WITH SOURCE TESTING GUIDANCE

8:45 am Introduction to Stack Testing/Methods and VOC/HAP Properties
10:00 am Break
10:15 am EPA's National Stack Testing Guidance and Compliance Monitoring Strategy
10:45 am Introduction to Stack Testing and Gas Physics

- Gas Physics
- Boyle/Charles Laws
- Correction to Standard Temperature and Pressure

11:15 am Stack Testing Basics: Overview of Federal Reference Methods
Federal Reference Methods 1-2

- Sampling Point Locations (On-line IsoCal Spreadsheet)
- Stack Gas Velocity (On-line IsoCal Spreadsheet)
- Agency Observer Checklist

12:00 noon Lunch (on your own)

TOPICS DEALING WITH FRM 1-5

1:00 pm Stack Testing Basics (*cont'd*)
Federal Reference Methods 1-2

- Sampling Point Locations (On-line IsoCal Spreadsheet)
- Stack Gas Velocity (On-line IsoCal Spreadsheet)
- Agency Observer Checklist

2:00 pm Stack Testing Basic (*cont'd*)
Federal Reference Methods 3-4

- Stack Gas Molecular Weight (On-line IsoCal Spreadsheet)
- Stack Gas Moisture (On-line IsoCal Spreadsheet)
- Sample Train Configuration
- Agency Observation Checklist

3:00 pm Break
3:15 pm Homework Problem
4:45 pm Review of Day 1
5:00 pm Adjourn

THURSDAY, JUNE 5, 2025

8:30 am Homework Review/Laboratory Exercises Review

TOPICS DEALING WITH FRM 1-5 (CONT'D)

9:00 am Stack Testing Basic (*cont'd*)
Federal Reference Method 5

- Operation
- Associated Equations
- Setting % Isokinetic Sampling Rate

10:30 am Break
10:45 am The Source Test
12:00 noon Lunch (on your own)
1:00 pm Rule of Agency Inspector
2:00 pm FRM 201/201A for PM-10
2:45 pm FRM 202 (Condensable and Update)
3:30 pm Break
3:45 pm F-Factor
4:45 pm Review of Day 2/Homework
5:00 pm Adjourn

FRIDAY, JUNE 6, 2025

8:30 am Homework Review/Laboratory Exercises Review

TOPICS DEALING WITH VOC STACK TESTING

9:00 am Introduction to VOCs/Selecting VOC Sampling and Analytical Methods (State of Pennsylvania Selection Process)
Reporting VOC Emissions (In ppms? In #/hr?) and Calculations (i.e., As Carbon? As VOCs? As Organics? As Propane?)
Midwest Scaling protocol Approach to VOC Emissions from Wet/Dry Grain Mills and Ethanol Production Facilities
10:00 am Break
10:15 am FRM 18
11:00 am FRM 25
11:30 am FRM 25A
12:30 pm Lunch (on your own)
1:30 pm strengths/Weaknesses of FRM 18, 25, 25A

TOPICS DEALING WITH STACK TESTING GAS TURBINES, ACID GAS MONITORING AND RELATED TOPICS

2:00	pm	Landfill FRM Sampling Methods
3:00	pm	Break
3:15	pm	Overview of Testing Engines <ul style="list-style-type: none"> • FRM 3A/6C/7E/10 and 20 • Fourier Transform Infrared (FTIR) Spectroscopy Technology • ASTM D6522-00 (Portable Analyzer Technology)
4:00	pm	Part 75
4:15	pm	Stack Testing Special Topics <ul style="list-style-type: none"> • High Moisture Stacks • High Pressure Stacks • High VOC Concentration Stacks • Molecular Weight Determination
5:00	noon	Adjourn

ABOUT THE TRAINING

WESTAR's Training Center will host this training course for state, local and tribal air quality professional staff working, or planning to work, in source testing.

This lecture-based course is designed for state, local and tribal air quality professional whose role is to observe source testing, evaluate source test methods, approve test protocols and review source test results as required under various federal and state regulations or as required by issued permits. This class is intended for compliance and field engineers, scientists and technicians who have responsibility for the above source testing tasks.

Those completing this course will gain a basic understanding of the general information associated with source testing and source test methods. This course develops the ability to plan, guide, evaluate, and (after experience on the job) perform source sampling measurements to determine rates of emissions from stationary sources. It clarifies EPA Reference Methods 1 to 4, and Method 5. The course develops knowledge of the equipment employed, understanding of why the prescribed methods are established, and ability to perform the calibrations and calculations which are a part of the reference methods.

To ensure that the source test methods utilized to demonstrate compliance are performed according to EPA guidelines, both agency and industrial personnel will be required to observe stack tests to document that compliance with the methodology is being achieved. This will mean that an observer must be intimately familiar with numerous stack test methods, each one with its own particular operation.

COURSE MATERIALS: Training course materials will only be available electronically. Attendees will receive an online document sharing link for access to materials. It is

the attendee's responsibility for downloading files and for providing the device or media on which to view materials. WESTAR will provide hard copies only for those needing accommodation.

SPACE LIMITATION: Registration is limited to 40 attendees. Air quality staff from the fifteen western states receive registration preference.

REGISTRATION FEES:

There are no registration fees for state, local or tribal air quality agency staff. For federal agency staff a \$1,200 registration fee will be charged.

ACCESSIBILITY

ACCESSIBILITY: WESTAR strives to host inclusive, accessible training events that enable all individuals, including individuals with disabilities, to engage fully with the instructor and course content. To request an accommodation or for inquiries about accessibility, please contact Jeff Gabler at jgabler@westar.org or 503-744-0486 by Friday, May 2, 2025.

TRAINING LOCATION

State of Utah DEQ

Multi-Agency State Office Building

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195 North 1950 West

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