

WESTAR Council

Monitoring Compliance Testing & Source Test Observation (APTI 450/468)

September 10-14, 2018

REGISTRATION DEADLINE:

Friday, August 10, 2018

Santa Fe Community College

Jemez Rooms 1 & 2

6401 Richards Avenue

Santa Fe, New Mexico 87508



REGISTRATION INSTRUCTIONS:

First Time Users:

Please go to: www.apti-learn.net and follow the below steps:

1. Click on the "First time user? Click here to register" link in the upper right-hand corner of the webpage;
2. First screen requires: 1) work email address; 2) first and last names; 3) password; and 4) security question;
3. Second screen asks about affiliation/agency. There are two options for filling out this section:
 - Agency Quick Search, or;
 - Affiliation/Agency
4. Third screen includes a list of job functions and other profile information. You can click as many (or few) job functions as appropriate. Once you have completed this third screen, you are done setting up your profile.

After completing the profile:

5. Click the "Register" tab on the left side, or the "Register" bubble in the middle of the page;
6. Scroll down the Training Calendar until you see training course that you are interested in registering for;
7. On the right side of the table you will see a "register" link;
8. Click the "register" link (be patient it takes a few seconds for the confirmation note to pop-up);
9. You will receive an automatically generated email saying that you have been placed on a waiting list (this is so unapproved attendees can be weeded out).
10. Once approved, you will receive a second email saying you are enrolled.

Previously Registered Users (www.APTI-Learn.net):

1. Enter email address and password in appropriate spaces;
2. Go to step 5 (above) and follow directions.

IF YOU NEED ASSISTANCE REGISTERING FOR THE COURSE PLEASE CONTACT: JEFF GABLER (503) 478-4955 or JGABLER@WESTAR.ORG

MONDAY, SEPTEMBER 10, 2018

8:30	am	Welcome & Introduction
8:45	am	Federal Reference Methods 1 through 5 (Video)
9:00	am	Pre-Test
9:50	am	Driving Force for Stack Testing/Sources of Methods/Defining HAPs,
10:30	am	EPA's National Stack Testing Strategy and Guidance
11:00	am	Introduction Gas Physics <ul style="list-style-type: none">• Gas Physics• Boyle/Charles Laws• Correction to Standard Temperature and Pressure
12:00	noon	Lunch (on own)
1:15	pm	Federal Methods 1-2 <ul style="list-style-type: none">• Classroom Demonstration with Method 5 Sampling Training<ul style="list-style-type: none">○ Sampling Point Locations (On-line IsoCal Spreadsheet)○ Stack Gas Velocity (On-line IsoCal Spreadsheet)
3:00	pm	Break
3:15	pm	Federal Reference Methods 3-4 <ul style="list-style-type: none">○ Stack Gas Molecular Weight (On-line IsoCal Spreadsheet)○ Stack Gas Moisture (On-line IsoCal Spreadsheet)○ Sample Train Configuration○ Agency Observation Checklist
4:30	pm	Review of Day 1/Homework Problems
5:00	pm	Adjourn for Day

TUESDAY, SEPTEMBER 11, 2018

8:00	am	Homework Review
8:15	am	Federal Reference Method 5 Equations and Setting Isokinetic Sampling Rate
10:00	am	Break
10:15	am	The Source Test
10:45	am	Inspector Tool Kit
11:15	am	FRM 201/201A for PM-10
11:45	am	FRM 202 Condensables and Update
12:00	noon	Lunch (on own)

1:15	pm	Role of the Agency Inspector
2:00	pm	Review of Laboratory Exercises at Source Simulator
2:20	pm	Laboratory Exercises <ul style="list-style-type: none">• Station #1: Nozzle Diameter• Station #2: DGM "V"• Station #3: Orifice Meter "ΔH@"• Station #4: Stack Gas V_s & Q_s• Station #5: Calibration of Type S Pitot Tube• Station #6: Stack Gas Moisture• Station #7: Pitot Tube Inspection• Station #8: FRM 5 Sampling Train• Station #9: Isokinetic Rate Equation Calc.• Station #10: FRM 1 Traverse Point Deter.
4:30	pm	Review of Day 2/Homework
5:00	pm	Adjourn for Day

WEDNESDAY, SEPTEMBER 12, 2018

8:00	am	Homework Review/Laboratory Exercises Review
8:30	am	Laboratory Exercises <ul style="list-style-type: none">• Station #1: Nozzle Diameter• Station #2: DGM "V"• Station #3: Orifice Meter "ΔH@"• Station #4: Stack Gas V_s & Q_s• Station #5: Calibration of Type S Pitot Tube• Station #6: Stack Gas Moisture• Station #7: Pitot Tube Inspection• Station #8: FRM 5 Sampling Train• Station #9: Isokinetic Rate Equation Calc.• Station #10: FRM 1 Traverse Point Deter.
~12:00	noon	Lunch (on own): Flexible Based on Teams' Needs
1:15	pm	Laboratory Exercises <ul style="list-style-type: none">• Station #1: Nozzle Diameter• Station #2: DGM "V"• Station #3: Orifice Meter "ΔH@"• Station #4: Stack Gas V_s & Q_s• Station #5: Calibration of Type S Pitot Tube• Station #6: Stack Gas Moisture• Station #7: Pitot Tube Inspection• Station #8: FRM 5 Sampling Train

- Station #9: Isokinetic Rate Equation Calc.
 - Station #10: FRM 1 Traverse Point Deter.
- 4:30 pm Review of Laboratory Exercises/Group Presentations
- 4:45 pm Review of Day 3/Homework
- 5:00 pm Adjourn for Day

THURSDAY, SEPTEMBER 13, 2018

- 8:00 am Homework Review
- 8:30 am Laboratory Exercises
- Station #1: Nozzle Diameter
 - Station #2: DGM “V”
 - Station #3: Orifice Meter “ $\Delta H@$ ”
 - Station #4: Stack Gas V_s & Q_s
 - Station #5: Calibration of Type S Pitot Tube
 - Station #6: Stack Gas Moisture
 - Station #7: Pitot Tube Inspection
 - Station #8: FRM 5 Sampling Train
 - Station #9: Isokinetic Rate Equation Calc.
 - Station #10: FRM 1 Traverse Point Deter.
- 10:00 am Introduction to VOCs/Selecting VOC Sampling & Analytical Methods (State of Pennsylvania Selection Process)
- Reporting VOC Emissions (in ppms? In #/Hr.? etc.) and Calculations (i.e., “As Carbon?”; “As VOCs?”; “As Organics?”; As Propane?”)
- Midwest Scaling Protocol
- 10:25 am Federal Reference Method 18 and Recent Modifications (Gaseous Organic Compounds: VOC)
- 11:15 am Federal Reference Method 25 for VOCs (Classroom Demonstration of Sampling Train)
- Sampling Techniques
 - Analytical Methodology
- 12:15 noon Lunch (on own)
- 1:30 pm Federal Reference Method 25A and B (cont’d)
- Modifications
 - Low Level Concentrations
 - Audit Program
- 2:15 pm South Coast Air Quality Management District (SCAQMD) Method 25.3 for VOC with Concentration 1-50ppm (EPA’s CTM-035)

- 3:00 pm Break
- 3:15 pm SW-846 Method 0010 (Semi-Volatile Organic Compounds: Classroom Demonstration of Sampling Train)
- Sampling Train Design
 - Sampling Techniques
 - Analytical Methodology
 - Agency Observer Checklist
- 4:15 pm SW-846 Method 0030/0031 (Volatile Organic Compounds: Classroom Demonstration of Sampling Train)
- Sampling Train Design
 - Sampling & Analytical Techniques
- 4:45 pm Review of Day 4/Homework
- 5:00 pm Adjourn for Day

FRIDAY, SEPTEMBER 14, 2018

- 8:00 am Homework Review
- 8:15 am Federal Reference Method 23 (Dioxins/Furans/PCB and PCB Congeners)
- Sampling Train Design
 - Sampling Techniques
 - Analytical Methodology
 - Agency Observer Checklist
- 9:00 am Federal Reference Method 29, Federal Reference Method 306, and SW-846 Method 0060 (Heavy Metals), and Federal Reference Method 12 (Classroom Demonstration of Sampling Train)
- Sampling Train Design
 - Sampling Techniques
 - Analytical Methodology
 - Agency Observer Checklist
- 9:45 am SW-846 Method 0061 (Cr^{+6})
- Sampling Train Design
 - Sampling Techniques
 - Analytical Methodology
 - Agency Observer Checklist
- 10:30 am Federal Reference Method 26/SW-846 Methods 0050/0051 (HCl/Cl₂)
- Sampling Train Design
 - Sampling Techniques

- Analytical Methodology
- Agency Observer Checklist

11:15 am Federal Reference Method 6C/7E/3A and 20 Applications at Gas Turbines
 12:00 noon Final Exam
 12:30 pm 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. Since the passage of the Clean Air Act Amendments of 1990 (CAAA of 1990), industrial sources have had to quantitate their emissions of Title III hazardous air pollutants (HAPs) in order to demonstrate compliance with regulated emissions. To insure 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 over 30 or more stack test methods, each one with its own particular operation.

Major topics

- Procedures and checklists to use when observing and certifying compliance source test methods
- Stack test basics [Federal Reference Methods (FRM) 1,2,3 and 4], FRM 5 for particulate matter, FRMs 6,7, and 8 for SO₂, NO_x, and sulfuric acid
- Information and guidance associated with EPA stack test methodologies for characterizing Title III HAPs from industrial sources.
- Standardized stack test methodology for sampling and analysis of HAPs as outlined in EPA's SW-846 Test Methods for Evaluating Solid Waste.
- EPA's stack test monitoring programs associated with PM₁₀ (FRM 201/201A) and condensable particulate (FRM 202) monitoring
- Specific observer checklist will be demonstrated during the presentation for each test methodology as part of the source test observation package

SPACE LIMITATION: Registration is limited to 30 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 \$600 registration fee will be charged.

TRAINING LOCATION

Santa Fe Community College
 Jemez Rooms 1 & 2
 6401 Richards Avenue
 Santa Fe, New Mexico 87508

HOTEL INFORMATION

Attendees and speakers are responsible for making their hotel reservations. Below is a list of potential hotels in Santa Fe. These hotels are not within walking distance. WESTAR DOES NOT have room blocks at these hotels. Please ask for government rates:

Quality Inn – Santa Fe

3011 Cerrillos Rd.
 Santa Fe, NM, 87507
 (505) 471-1211

Courtyard By Marriott

3347 Cerrillos Rd
 Santa Fe, NM 87507
 (505) 473-2800

Comfort Suites

3348 Cerrillos Rd
 Santa Fe, NM 87507
 (505) 473-9004

Super 8 Motel

3358 Cerrillos Rd
 Santa Fe, NM 87507
 (505) 471-8811

Holiday Inn Express

3450 Cerrillos Rd
 Santa Fe, NM 87501
 (505) 474-7570

Hampton Inn

3625 Cerrillos Rd
 Santa Fe, NM 87505
 (505) 474-3900