



**Western States Air Resources Council  
(WESTAR Council)**

**June 23-26, 2020**

**Training Location**

Nevada State Library & Archives  
100 N. Stewart Street  
Room 110  
Carson City, NV 89701

**Registration Deadline:**

Friday, May 29, 2020

**Electrostatic Precipitators (NACT 281)**

June 23, 2020  
8:30 am – 5:00 pm  
\*w/site visit

**Continuous Emission Monitoring (NACT 221)**

June 24, 2020  
8:30 am – 5:00 pm  
\*w/site visit

**Stationary Gas Turbines (NACT 272)**

June 25, 2020  
8:30 am – 5:00 pm  
\*w/site visit

**Compliance Assurance Monitoring (NACT 220)**

June 26, 2020  
8:30 am – 5:00 pm

**\*Site visits and an exam are required for completion of each course. All students must have proper safety equipment, including hard hat, safety shoes, earplugs, and eye protection.**

For more information, please contact: Jeff Gabler, Training Mgr - (503) 478-4955 or [jgabler@westar.org](mailto:jgabler@westar.org)

## LEARNING OBJECTIVES:

**Electrostatic Precipitators (NACT 281):** Those completing this course will gain a basic understanding of the general information associated with electrostatic precipitators operations. Attendees will be able to:

- List the major industrial applications for ESPs
- Explain the theory of operation of ESPs, using appropriate terminology
- Describe the major types/categories of ESPs
- List the main things to consider in designing an ESP
- List the major components of a typical ESP and explain the functions of these components
- Be aware of how ESP performance can be monitored by operators
- Explain in detail how to conduct an inspection of an ESP

**Continuous Emission Monitoring (NACT 221):** Those completing this course will gain a basic understanding of the general information associated with continuous emission monitoring. Attendees will be able to perform regulatory reviews involving the following elements of Continuous Emissions Monitoring systems:

- CEM Implementing regulations
- CEM basic theory and operation
- CEM system components
- System certification requirements
- Inspection and quality assurance

**Stationary Gas Turbines (NACT 272):** Those completing this course will gain a basic understanding of the general information associated with stationary gas turbines plants. Attendees will be able to perform regulatory reviews involving the following elements of stationary gas turbines:

- Gas turbine history, theory of operation
- Gas turbine uses
- Air pollution control devices
- Gas turbine regulations
- Typical permit conditions
- Inspection procedures
- Continuous emission monitoring
- Source testing requirements

**Compliance Assurance Monitoring (NACT 220):** Those completing this course will gain a basic understanding of the general information associated with compliance assurance monitoring. Attendees will be able to perform regulatory reviews involving the following elements of CAM:

- Effect of Title V
- Background of CAM
- Part 64 applicability
- Exception
- CAM monitoring design criteria
- Source, district, and EPA Roles
- Quality Improvement plan

# REGISTRATION INSTRUCTIONS:

## **First Time Users:**

Please go to: [www.apti-learn.net](http://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:
  - o Agency Quick Search, or;
  - o 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](http://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*

*JGABLER@WESTAR.ORG*

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## Electrostatic Precipitators (NACT 281) June 23, 2020

### Tentative Agenda

8:30	Introduction, Course Overview, & Pre-Test
9:00	ESP Theory
9:30	ESP Design Considerations
10:30	ESP Components <ul style="list-style-type: none"><li>• Overall</li><li>• Gas Flow Distribution</li><li>• Electrodes</li><li>• Rappers</li><li>• Hoppers</li><li>• High Voltage Equipment</li></ul>
12:00	Lunch (on your own)
1:00	Performance Monitoring Basics
1:30	Inspecting ESPs
2:00	Site Visit
4:00	Questions, Review & Post-Examination
5:00	Adjourn



## Continuous Emissions Monitoring (NACT 221) June 24, 2020

### Tentative Agenda

8:30	Introduction, Course Overview, & Pre-Test
9:00	CEM Regulations
9:30	CEM Basic Theory & Operation
10:00	Break
10:15	CEM Basic Theory & Operation ( <i>cont'd</i> )
10:45	CEM System Components
11:15	CEM System Certification Requirements
12:00	Lunch (on your own)
1:00	Inspection, Quality Assurance & Enforcement
2:00	Site Visit
4:00	Questions, Review & Post-Examination
5:00	Adjourn



## Stationary Gas Turbines (NACT 272)

June 25, 2020

### Tentative Agenda

8:30	Introduction, Course Overview, & Pre-Test
9:00	Turbine Uses, Technical Terms, & Engine Types
9:15	Turbine Sections and Components
10:00	Break
10:15	Power & Steam Generation
11:00	Emissions, Control Techniques and Interactive Exercise
11:45	Combined Heat & Power (Cogeneration)
12:00	Lunch (on your own)
1:00	Regulatory Requirements & Permits
1:30	Monitoring, Source Testing & Inspections, & Safety
2:00	Site Visit
4:30	Questions, Review & Post-Examination
5:00	Adjourn



## Compliance Assurance Monitoring (NACT 220) June 26, 2020

### Tentative Agenda

8:30	Introduction, Course Overview, & Pre-Test
9:00	CAM Background, Purpose, Rule History, Principles, and Design Criteria
9:45	Emissions, Mass Balance Calculations and Pre-Control PTE
10:00	Break
10:15	Affected Sources, New Concepts, Mass Balance Calculations, Control Devices
10:45	Monitoring – Design Criteria, Frequency & Indicator Levels of Confidence
11:00	Break
11:15	Role of the Source – Monitoring Approach & Design Criteria
12:00	Lunch (on your own)
1:00	Design Evaluation Factors, Recordkeeping & Reporting
1:30	QIPs, Status of Compliance, Compliance Certification
2:00	Break
2:15	Role of Permitting Authority – Agency & EPA Roles
3:15	Monitoring Approaches & Limitation of Selected Control Devices
4:15	Enforcement & Enforcement Authority
4:30	Questions, Review & Post-Examination
5:00	Adjourn