

# **Illinois EPA Training Course**

**August 21-22-23, 2018**

**Springfield, Illinois**

## **Air Pollution Training Institute (APTI) 413: Control of Particulate Matter Emissions Training Course**

The Illinois Environmental Protection Agency (IEPA) will be sponsoring a 3-day training event on Tuesday, August 21 through Thursday, August 23, 2018 to be held at IEPA headquarters, located at 1021 North Grand Avenue, East, Springfield, Illinois. Training will be in the Sangamon Conference Room which is accessible through the North Entrance off Converse street. The course instruction for the three days will run from 9:00 AM to 4:30 PM.

Attendees will receive course manuals containing the presentation materials and additional relevant sources materials. Attached below is an agenda that provides insight into the course specifics.

### **INSTRUCTOR:**

William J. Franek, Ph.D, P.E., DEE will be presenting the course. Bill has been an instructor for over 150 - APTI seminars for the past 35 years; Bill had an adjunct appointment at the University of Illinois Chicago until 2017 and has also been an adjunct faculty at the Illinois Institute of Technology from 1990 – 2014 instructing course in air pollution monitoring, sampling and control devices.

### **COURSE DESCRIPTION:**

The APTI 413 Control of Particulate Matter Emissions course is a basic course that is designed for individuals within a regulatory agency whose role is to evaluate particulate emission sources for permitting and inspections for determining the ongoing compliance status of such emission sources.

Those completing this course will gain a basic understanding of the different types and the operating characteristics of control devices that are available for specific particulate emission sources. Attendees will be able to perform regulatory reviews and inspections involving the following elements of particulate emissions and control:

- Particulate formation and behavior
- Particulate size distributions
- Reverse air and pulse jet fabric filters
- Electronic precipitators
- Particulate wet scrubbers
- Hoods and fans effect on control equipment and process emissions
- Emission testing and monitoring

Introductory material concerning particle aerodynamic behavior and particle formation is provided as a basis for course materials on particulate control systems. This course provides a foundation for later courses concerning source sampling, inspection, and permit review.

### **REGISTRATION INFORMATION:**

This course is limited to 25 spots. Any interested attendees should register for the class on the APTI-LMS and they will automatically be put on the waiting list. Registration deadline is August 16, 2018.

Below is the link to register on the APTI-LMS (note: you must log-in before you can to register):

<http://www.apti-learn.net/LMS/EPAHomePage.aspx>

Lodging is available near the IEPA office. Some specific nearby hotels to consider are Northfield Inn and Suites at 3280 Northfield Dr. (217-523-7900) or the Wyndham Hotel at 700 E. Adams St. (217-789-1530). Many other hotels in the vicinity as well. Additional questions regarding the training and logistics should be directed to Brenda Jones @217/785-4140 or by email at [Brenda.Jones@illinois.gov](mailto:Brenda.Jones@illinois.gov).

# Course 413

## Control of Particulate Matter Emissions

August 21 - 23, 2018

### LOCATION

Springfield, Illinois

### MODERATOR

William J. Franek, Ph.D., P.E. DEE

DAY & TIME	SUBJECT	SPEAKER
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### Tuesday, August 21

9:00	Welcome and Registration
9:30	Pre-Test
10:00	BREAK
10:15	Course Overview
10:30	Review of Basic Concepts
12:00	LUNCH
1:00	Particulate Matter Formation and Illinois PM Regulations
1:45	Particle Sizing
2:30	BREAK
2:45	Particle Sizing (cont'd)
3:30	Particle Collection Mechanisms
4:30	ADJOURN

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*HOMEWORK: Read Chapters 1-4, Student Manual; Review Problems*

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### Wednesday, August 22

9:00	Particle Collection Mechanisms (cont'd)
9:30	Auxiliary Equipment, Hoods, Ducts, Fans
10:30	BREAK
10:45	Gravitational Particle Collection Devices
11:00	Cyclones
12:00	LUNCH
1:00	Cyclones (cont'd)
2:30	BREAK
2:45	Fabric Filters
4:30	ADJOURN

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*HOMEWORK: Read Chapters 5-7, Student Manual; Review Problems*

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### Thursday, August 23

9:00	Wet Scrubbers (cont'd) & Video
10:30	BREAK
10:45	Wet Scrubbers
12:00	LUNCH

DAY & TIME	SUBJECT	SPEAKER
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***Thursday, August 23 (cont'd)***

1:00	Electrostatic Precipitators (cont'd) & Video	
2:30	BREAK	
2:45	Fugitive Particulates Sources, Control and Regulation in Illinois	
4:00	Pre-Test Review	
4:30	ADJOURN	

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*HOMEWORK: Read Chapters 8-10, Student Manual; Review Problems*

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