



UTILITY & INDUSTRY

# CEMS

## TRAINING PROGRAM

For CEMS Users that are subject to:  
EPA Part 75 Acid Rain, Part 60 NSPS, CSAPR,  
the EGU MATS Rule and the Greenhouse Gas Regulations

**Includes  
ACE  
Rule**

Presented by RMB Consulting & Research, Inc.  
March 26-28, 2019  
Raleigh, North Carolina

**Includes  
EGU MATS  
Rule**

*Comments from previous RMB CEMS Training Program Attendees:*

*“This course was one of the best organized and informative from a practical standpoint.  
The book (course manual) is much appreciated and useful.”*

*“Well organized course and appeared well practiced”*

*“The content was of good quality and I would recommend the course to others involved  
in CEMS programs with the electric utility industry”*

*“Instructors have excellent knowledge of the subjects”*

This CEMS Training Program addresses Acid Rain and NSPS CEM issues and other air emissions monitoring topics such as mercury, particulate matter, 3-D flow measurement, CEMS technology and performance, MACT standards, the CSAPR Rule and the constantly evolving regulations confronting the CEMS user.

RMB Consulting & Research, Inc. brings more than 200 years of combined experience in air pollution control and air pollution consulting to its custom designed training programs. We specialize in providing services primarily to the electric utility industry and its associated organizations. RMB's Utility & Industry CEMS Users Training Programs are conducted by nationally recognized experts and are designed to educate CEMS users (environmental engineers, DRs, instrument

supervisors and technicians) in the discipline of continuous emission monitoring and data reporting, and to inform them of the latest regulatory developments. RMB also provides on-site training for the Utility & Industry CEMS users responsible for complying with regulatory requirements. Utility and Industry clients desiring on-site training can choose topics from the agenda list below. Call RMB for additional information.

## TRAINING PROGRAM OVERVIEW

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This comprehensive, 3-day training program is presented by RMB's CEMS experts including: Ralph Roberson, Steve Norfleet, Dru Sanders, Jack Martin, Mike O'Connell, Rob Barton, Robert Bivens, Will Roberson, and Bethany White. Other past speakers have included: Environmental Supply Company, Air Liquide, Enthalpy Analytical, and US EPA.

RMB's CEMS training session covers: (1) Discussion of the most recent CEMS rule revisions to 40 CFR Part 75; (2) An overview of 40 CFR Part 75 and NSPS Part 60 CEMS regulations; (3) Fundamental CEMS concepts, such as equations for converting measurements to units of an emission standard; (4) An introduction to gas, flow, and opacity CEMS technologies; (5) 40 CFR Part

75 CEMS certification and recertification requirements; (6) 40 CFR Part 75 CEMS QA/QC requirements; (7) EPA 3-D flow rate methods; (8) Auditing of quarterly EDRs; (9) Overview of new opacity monitor performance specifications; (10) QA/QC requirements following analyzer maintenance; (11) 40 CFR Part 75 Appendix D&E monitoring & reporting requirements; (12) Overview of mercury, particulate matter, and HCl monitoring; (13) EGU MATS requirements; and (14) the ACE Rule.

In addition, a CEMS Vendor Exhibition will take place at the hotel during the course. The CEMS Vendor session includes interactive operation and routine maintenance guidance, and demonstrations by manufacturers' representatives for a variety of widely used dilution and non-dilution extractive

CEMS equipment. Past representatives have included: Thermo Environmental Instruments; Teledyne Monitor Labs; M&C Products; Environmental Supply Company; and C.E.M. Solutions, among others.

The course cost is \$1,399. This fee includes a \$250 non-refundable registration deposit, tuition, an extensive course manual and USB drive including current regulatory material, coffee breaks, and three lunches. It does not include travel costs or hotel accommodations. For specific questions concerning course content or materials, contact Robert Bivens at (919) 791-3133.

<b>Class Schedule</b>	
Tuesday, March 26:	8am-5pm
Wednesday, March 27:	8am-3pm
Thursday, March 28:	8am-3pm

## ANTICIPATED TOPICS • Spring 2019

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### *Course Introduction*

#### *Historical and Regulatory Overview of CEMS*

- Acid Rain, NSPS, and MACT

#### *Part 75 Audit Requirements*

- RATAs and Bias
- Daily and Quarterly QA/QC
- Certification Testing

#### *Part 75 Appendix D Requirements*

#### *Part 75 Appendix E Requirements*

#### *Part 60 Audit Requirements*

#### *Part 75 Rule Revisions and Updates*

#### *CSAPR*

### *CEMS Fundamentals*

- Units of Measurement
- Conversions
- Equations and Calculations

### *Gas and Flow CEMS Technology*

- Straight Extractive
- Dilution Extractive
- In-Situ
- SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, and O<sub>2</sub>
- Flow

### *The EGU MATS Rule*

### *Mercury (Hg) Monitoring*

### *QA/QC Requirements following Maintenance*

- Corrective and Preventive Maintenance
- Diagnostic Test Events
- Recertification Test Events

### *QA Plans and QA/QC Program Requirements*

### *Opacity COMS Technology*

### *Part 75 Quarterly Reports and EDRs*

### *Emissions Averaging*

### *HCl CEMS*

### *Particulate Matter (PM) Monitoring*

### *Greenhouse Gas and the ACE Rule*

### *Miscellaneous "Special" Topics*

**NOTE**

***Day 3 of the training will be dedicated to the EGU MATS Rule***

**Vendor Exhibition**

Wednesday, March 27: 4pm-5:30pm

Length and/or order of course presentations subject to change. Vendor companies, specific personnel, and/or associated equipment also subject to change or cancellation.



**Utility & Industry CEMS Training Program • March 26-28, 2019**

**REGISTRATION FORM**

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MR/MS NAME \_\_\_\_\_ COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TELEPHONE \_\_\_\_\_ E-MAIL \_\_\_\_\_

PREVIOUS ATTENDEE \_\_\_\_\_ Yes \_\_\_\_\_ No

TRAINING PROGRAM FEE.....\$1,399 (CHECKS OR CREDIT CARDS ACCEPTED)

PLEASE MAIL, E-MAIL OR FAX THIS COMPLETED REGISTRATION FORM TO:

RMB Consulting & Research, 5104 Bur Oak Circle, Raleigh, NC 27612  
(919) 510-5102 Main • (919) 510-5104 Fax • pierce@rmb-consulting.com

All checks must be made payable to RMB Consulting & Research, Inc.  
All credit card information must be provided to RMB over the phone.

Training program fee includes a \$250 non-refundable registration fee, tuition, course materials (notebook and USB drive), coffee breaks, three lunches, and vendor exhibition. It does not include hotel accommodations. For specific questions concerning the course technical content materials contact Robert Bivens at (919) 791-3133. For registration and payment questions contact Stacey Pierce at (919) 791-3120.

RMB reserves the right to cancel the training program without prior notice. In the event of program cancellation, registrants will receive full refunds. Incomplete or illegible registration forms will not be accepted.

Registration forms will also not be accepted once the class is full.

Visit the Training Section on our Web Site at <http://www.rmb-consulting.com> for additional information.

**RMB Consulting & Research, Inc.**  
**5104 Bur Oak Circle**  
**Raleigh, NC 27612**

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## REGISTRATION

Complete the registration form in this brochure to register for the RMB Utility & Industry CEMS Users Training Program. Payments must be made by check or credit card to: RMB Consulting & Research. All registrants must be paid in full before being admitted into the training program. Classes fill to capacity quickly, so please pre-register at least 30 days prior to the course start date. Direct your questions concerning registration to the RMB Course Registrar, Stacey Pierce at (919) 791-3120.

## HOTEL ACCOMMODATIONS

The RMB Utility & Industry CEMS Users Training Program will be held at the Embassy Suites Raleigh-Durham Airport/Brier Creek. This hotel, which opened in 2010, is located at Raleigh's Brier Creek Shopping Center, and is next to the Raleigh/Durham Airport (RDU). The hotel offers complimentary van transportation to and from the airport and locations within a close radius of the hotel. A limited block of rooms for RMB workshop attendees will be held until March 11, 2019. Rates are \$174/Room/Night.

**Make your reservations directly with the Embassy Suites by calling either (919) 572-2200 or 1-800-Embassy.**

**Website:**  
**[www.tinyurl.com/rmbspring2019](http://www.tinyurl.com/rmbspring2019)**

**Hotel Address:**  
**Embassy Suites**  
**Raleigh-Durham Airport/**  
**Brier Creek**  
**8001 Arco Corporate Drive**  
**Raleigh, NC 27617**