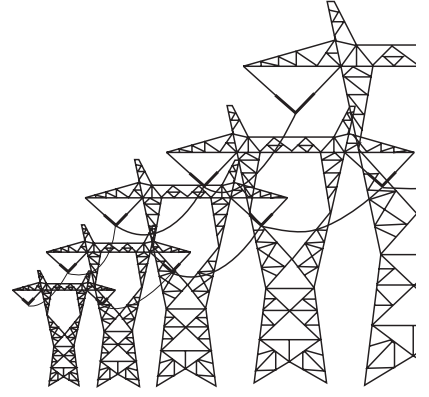


UTILITY & INDUSTRY



# CEMS

## TRAINING PROGRAM

For CEMS Users that are subject to: EPA Part 75 Acid Rain,  
Part 60 NSPS, NO<sub>x</sub> Budget Program, CSAPR,  
EGU MACT and the Greenhouse Gases Regulations

**New,  
Expanded  
Format!**

Presented by RMB Consulting & Research, Inc.

October 2-4, 2012

Raleigh, North Carolina

**Includes  
EGU MACT**

*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 NO<sub>x</sub> Budget CEM issues and other air emissions monitoring topics such as mercury, particulate matter, and CO<sub>2</sub> monitoring, 3-D flow measurement, CEMS technology and performance, the EPA CAM Rule, MACT standards, 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 electrical 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

.....

This comprehensive, 3-day training program is presented by RMB's CEMS experts including: Ralph Roberson, Russell Berry, 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, Scott Specialty Gases, Enthalpy Analytical, and USEPA.

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 and particulate matter monitoring; and (13) EGU MACT requirements.

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 instructions, 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; and Environmental Supply Company.

The cost is \$1,295. This fee includes a \$200 non-refundable registration deposit, tuition, an extensive course manual and CD 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, October 2:	9am-4pm
Wednesday, October 3:	8am-3pm
Thursday, October 4:	8am-3pm

## TOPICS • October 2-4, 2012

.....

### *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*

#### *CEMS Performance Indicators and Incentives*

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

### *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 Air Transport Rule (CSAPR)*

### *The EGU MACT Rule*

### *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*

### *The NO<sub>x</sub> Budget Rule*

### *Mercury Monitoring*

### *Particulate Matter Monitoring*

### *The Greenhouse Gases Rule*

### *Miscellaneous "Special" Topics*

## Past Vendors / Typically Demonstrated Equipment

### Thermo Environmental Instruments

- SO<sub>2</sub>, NO<sub>x</sub> and CO Monitors  
(C-Series and I-Series)
- Mercury Monitor

### M&C Products

- Dilution Probe
- PM Monitor Particle Tracker

### Teledyne Monitor Labs, Inc.

- SO<sub>2</sub>, NO<sub>x</sub> and CO Monitors
- Flow and Opacity Monitors

### Environmental Supply Company, Inc.

- 3-D Flow Measurement Equipment
- Mercury Sorbent Trap Sampling System

#### Vendor Exhibition

Wednesday, October 3: 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.

COURSES FILL  
QUICKLY  
PLEASE REGISTER  
EARLY



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

### Utility & Industry CEMS Training Program • October 2-4, 2012

## REGISTRATION FORM

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

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

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

TRAINING PROGRAM FEE.....\$1,295 (NO CREDIT CARDS PLEASE)

PLEASE MAIL THIS COMPLETED REGISTRATION FORM WITH CHECK PAYABLE TO:

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

Questions on Registration? Call Stacey Pierce at RMB

(919) 791-3120, Fax (919) 510-5104

\* Training Program fee includes a \$200 non-refundable registration fee, tuition, course materials (notebook and CD), coffee breaks, three lunches and vendor exhibition. It does not include hotel accommodations. For specific questions concerning course content or materials contact Robert Bivens at (919) 791-3133

Receipt Required  I would like information on custom designed seminars

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

## 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 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 no later than 30 days before 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 newly opened hotel is located at Raleigh's Brier Creek Shopping Center, and is next to the Raleigh/Durham Airport. 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 September 17, 2012. Rates are \$149/Room/Night.

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

**Website:**

**[www.tinyurl.com/rmbfall2012](http://www.tinyurl.com/rmbfall2012)**

**Hotel Address:**

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

---

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