



Process & Emissions Monitoring Specialists



ABOUT THE COURSE

This course is designed to provide an understanding of regulatory CEM guidelines, the design and application of CEM systems and analyzers, and the management of CEM programs. This course encompasses topics such as selecting equipment, observing a certification test, operating and maintaining a CEM system, writing a quality assurance plan, conducting an audit, and supervising a CEM program.

Dr. James A. Jahnke, with Source Technology Associates, consults on a wide range of regulatory and technical issues both in the U.S. and Canada. He provides assistance in the development of monitoring standards, prepares quality assurance/quality control manuals, conducts CEM system audits, and assists in the design and purchase of new or replacement monitoring systems.

For more information please contact

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2018 Continuous Emissions Monitoring Course

May 15 – 17, 2018

**Four Points by Sheraton
London, ON**

**Instructed by:
Dr. James A. Jahnke**



Dr. James A. Jahnke is a consultant with Source Technology Associates of Research Triangle Park, a firm specializing in source emissions monitoring. Dr. Jahnke has over 30 years of experience in the development and evaluation of CEM systems and has authored two books including the newest, 'Continuous Emissions Monitoring, 2nd Edition'; published by John Wiley & Sons in 2000.

A recognized expert in CEM systems, he serves as the U.S. ASTM representative to the International Standards Organization Committee on Source Monitoring, and as chairman of the ASTM Committee D22.03 on Ambient Atmospheres and Source Emissions. He was also the Technical Program chairman for AQMA/PCA specifically conferences on CEM systems given in 1981, 1985, and 1992. He has written numerous manuals, studies, reports and technical papers on CEM systems and related projects.

WHO SHOULD ATTEND

Any personnel involved with emissions monitoring, including:

- Vendors
- Regulatory Agencies
- Equipment Manufacturers
- Engineers
- Consultants
- Environmental Engineers
- Maintenance personnel involved in CEM Systems

Register and submit payment before March 16 for extra savings!

HOTEL ACCOMMODATIONS

Four Points by Sheraton London
 1150 Wellington Road South
 London, Ontario, N6E 1M3 Canada
www.fourpointslondonontario.com
 Tel 519-681-0600 or 866-716-8133

Book before March 16, 2018

- \$ 1,750.00 first registrant
- \$ 1,650.00 all subsequent registrants from the same company.

Book after March 16, 2018

- \$ 1,950.00 all registrants

The 3 day course fee includes:

- Textbook & workbook
- Breakfast / Lunch / 2 breaks for all 3 days
- CEM Specialties Inc hosted reception
- All taxes

Please make your own hotel reservations requesting the CEM Course room rate. The Four Points by Sheraton London is offering an assortment of guest rooms and studios starting at **\$112 room/night**. All rooms are fully adorned for the business traveler. Room availability is not guaranteed after April 1, 2018. Applicable taxes are not included in the room rate.

COURSE CONTENT

- A) Introduction to Continuous Emissions Monitoring
- B) Review of CEMS Code
- C) CEM Regulations—Regulatory Imperatives
- D) CEM Regulations—Certification & Quality Assurance
- E) Extractive System Design
- F) Basic Instrumentation Principles
- G) Extractive Gas Analyzers—Principles of Operation—Electro-optical
- H) Extractive Gas Analyzers—Principles of Operation—Luminescence/Electrochemical
- I) In-situ Gas Monitors—Principles of Operation
- J) Calculating in Units of the Standard/Flow Monitoring Systems
- K) Opacity Monitors & Continuous Particulate Monitors
- L) Performance Specifications for Gas CEM Systems
- M) Group Exercise—Mini Performance Specification Test
- N) Recording & Reporting Data—CEM Data Acquisition Systems
- O) Methods of Comparable Effectiveness—Predictive Emission Monitoring Systems
- P) Monitoring for Mercury – Requirements and Techniques
- Q) Air Toxics – Options for Monitoring Toxic and Hazardous gases (U.S. NESHAP)
- R) CEM System Quality Assurance – Plan and program management, audits and inspections.

- Cement
- Incineration
- Steel Making
- Minerals & Mining
- Power Generation
- Refining & Petro-Chemical
- Thermal Oxidizers
- Pharmaceutical
- Pulp & Paper
- Special Applications