



For more information please contact
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ABOUT THE COURSE

This course is designed to provide an understanding of the Environment Canada CEM Guidelines, EPS 1/PG/7 Revised (Dec 2005), 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.

CEM Specialties Inc.
Process & Emissions Monitoring specialists

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2009 Continuous Emissions Monitoring Course

September 15-17, 2009

Instructed by: Dr. James A. Jahnke

CEM Specialties Inc.

Process & Emissions Monitoring Specialists

WHO SHOULD ATTEND

Any personnel exposed to emissions monitoring, including:

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

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



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.

**Register and Submit
Payment Before August
14th and save!**

COURSE MATERIAL & FEES \$875

The three day CEM Course is \$875 if paid by August 14th. Fees include all program sessions, courses material and continental breakfast, lunch and refreshments each day. A copy of Continuous Emissions Monitoring, 2nd Edition, will also be provided to course attendees at no additional cost.

HOTEL ACCOMODATIONS

Four Points Sheraton Hotel & Suites
1150 Wellington Rd. South
London, ON N6E 1M3 Canada
www.fourpoints.com/london
Ph 519-681-0600
janicegriffith@fourpointslondon.com

Please make your own hotel reservations quoting the rate for the CEM Course.

- **Executive King Suite** - \$110 room/night (1 king bed, separate living area with a pullout queen sofa, 2 TVs, 2 phones, fridge)

Free high speed internet in all guestrooms. Room availability is not guaranteed after August 30, 2009. **Applicable taxes are not included.**

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
- I) In-situ Gas Monitors—Principles of Operation
- J) Opacity Monitors & Continuous Particulate Monitors
- K) Calculating in Units of the Standard/Flow Monitoring Systems
- L) Recording & Reporting Data—CEM Data Acquisition Systems
- M) Methods of Comparable Effectiveness—Predictive Emission Monitoring Systems
- N) Performance Specifications for Gas CEM Systems
- O) Group Exercise—Mini Performance Specification Test
- P) CEM System Quality Assurance
- Q) Quality Assurance—Writing the Quality Assurance Manual
- R) Inspecting CEM Systems

ABOUT CEM Specialties Inc.

CEM Specialties Inc. provides systems, products, and services for the continuous monitoring of air emission sources for compliance and process control applications. We also provide consulting services in the area of CEM monitoring requiring application-specific system designs.

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