

# Source Emissions Measurements



Our expertise in process chemistry, combined with our regulatory knowledge and engineering skills, enables AECOM to custom design and implement emissions measurement programs that satisfy the full range of air quality measurement needs.

## Areas of Expertise

- Process emissions characterization
  - Compliance testing
  - Emissions control performance evaluations
  - Emission factor development/validation
  - Pollutant speciation
  - Trial burns
  - Emissions evaluation ahead of new regulatory requirements
  - Combustion tuning and optimization
- Fugitive emissions measurement
- Continuous emissions monitoring services
  - System design and bid package specifications
  - Installation and certification
  - Relative accuracy test audits
  - QA/QC and monitoring plan development
  - Data acquisition and reporting system enhancement
  - Training and audit support
- Method development and validation (EPA Method 301)

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## Overview

AECOM has experienced air emissions measurements staff and maintains an extensive inventory of equipment and instrumentation to meet any emissions measurement need. Our large staff of skilled engineers, compliance, permitting, and measurements professionals allows AECOM to meet any source measurement need. As an integral part of a facility's overall environmental management strategy, we bring to each client a unique combination of engineering skills, process knowledge, and regulatory understanding that makes us an industry leader in the measurement of emissions from point, fugitive, and area sources.

Our expertise with process chemistry, our regulatory knowledge, and our engineering experience enable AECOM to custom design and implement emissions measurement programs to address a wide range of issues. We collect data to address regulatory requirements such as agency-required testing; performance testing and trial burns; evaluation and resolution of air pollution control issues; and the development of data to correlate process operations and air emissions. We offer the full range of Reference Method sampling procedures, incorporating the very latest developments in sampling and analysis techniques. Through our extensive experience with the U.S. Environmental Protection Agency (EPA), AECOM has pioneered the development of new sampling and analysis methods, providing a technology and knowledge base rarely found in other environmental engineering firms.

Industries served by AECOM include chemicals, refining, pharmaceuticals, manufacturing, power generation, and waste combustion. We frequently supports our clients in addressing requirements from ICRs (Information Collection Requests). We did this extensively for the ICR for the Refinery MACT (including testing of delayed cokers), the Utility MACT, the Industrial Boiler MACT, Portland Cement MACT, Ethylene MACT, and others.

## Our Approach

We manage our source emissions measurement programs to ensure customer satisfaction.

- Our testing programs are tailored meet our clients' needs and address regulatory requirements.
- We prepare Test Plans and Quality Assurance Project Plans.
- Our test schedules are flexible, allowing us to accommodate unforeseen delays and to minimize interferences with plant operations.
- We provide quality assurance/ quality control (QA/QC) on every project.
- Our long-standing relationships with key laboratories ensure data quality and maximizes efficiency.
- We interpret and expertly communicate the meaning of the test data.

- We are leaders in the development and application of advanced emissions measurement systems and technology.
- Our test reports fully meet client expectations and are accepted by regulatory agencies.
- We were one of the first companies to be certified through the Louisiana Environmental Laboratory Program (LELAP) to perform emissions testing, and we have staff certified under the requirements of QSTI (Qualified Source Testing Individual).

## Key AECOM Attributes

As one of the largest air quality consulting firms in the world, we have a large staff of experienced personnel and extensive equipment resources to provide state-of-the-art emissions measurement technology.

- Fully equipped mobile laboratories
- Multiple test crews led by degreed professionals
- Computerized data acquisition systems for availability of data while on-site
- Modern sampling equipment for all wet chemical and instrumental methods
- Dynamic spiking systems and quad-train samplers for alternative method validation following EPA Method 301
- Field-portable gas chromatographs for on-site speciation of organic compounds
- Advanced optical sensing technologies (FTIR, UV, DOAS) for continuous air toxics monitoring
- Ability to test unique and challenging emission sources and process streams and develop necessary modifications to standard test methods

