

## Montrose Air Quality Services

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Montrose Air Quality Services is committed to collaboration. With 370 consultants, project managers, technicians and engineers in more than 30 offices nationwide, we provide personalized service with regional expertise. We also draw on a nationwide history of successful programs throughout the regulatory, energy, research and industrial communities. Montrose experts guide clients through all aspects of the testing process. Clients get details on inputs and results, as well as flexible, business-oriented action plans. Because we advise the EPA on reporting protocols, Montrose experts have all the answers. No matter the size or complexity, Montrose has the right professionals for any testing program. With our high quality promise, and adherence to ASTM D7036 in select locations with full compliance by the end of 2016, Montrose delivers with the highest technical and ethical standards with the least interruption to business goals.

## Cement Plant Testing Capabilities

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Montrose companies have conducted some of the most visible and important cement testing programs in the country. We currently service dozens of cement clients, including programs for regulatory compliance, NESHAPS and engineering. Our air quality specialties include the following:

### Portland Cement NESHAPS

- HCl RATA by FTIR (EPA 320 / 321)
- Total Hydrocarbons RATA (EPA 25A)
- Organic HAP alternative testing and scaling
- PM CPMS (dust monitor parametric monitoring)
- Mercury RATA (EPA 30B) with onsite analysis
- Dioxin/Furan (EPA 23) - lowest DLs for TEQ
- Visible Emissions (EPA 9 and 22)
- Commercial & Industrial Solid Waste Incinerators

### Regulatory Compliance Testing

- Criteria Pollutants (CO, NO<sub>x</sub>, SO<sub>2</sub>, THC, NH<sub>3</sub>, PM)
- Particulate Matter (F<sub>1/2</sub>, B<sub>1/2</sub>, condensibles, total)
- PM<sub>10</sub>, PM<sub>2.5</sub>, Particle Size Distribution
- Control & Destruction Efficiency
- Emission Factor Verification

### Continuous Emissions Monitoring

- RATA (O<sub>2</sub>, CO<sub>2</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, THC, HCl, Hg)
- Predictive Emissions Monitoring (PEMS)
- Fourier Transform Infrared Spectroscopy (FTIR)
- On-Site Mercury Analysis (Hg)
- On-Site GC Mass Spectroscopy (GC/MS)

### Specialized Emissions Testing

- Toxics Release Inventory (TRI) - report / auditing
- Greenhouse Gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, O<sub>3</sub>, CFCs)
- Raw Materials Collection and Analysis
- CISWI (40 CFR 60, Subparts CCCC & DDDD)
- Boiler MACT (40 CFR 63, Subpart DDDDD)
- NSPS (40 CFR 60, Subpart F)
- RCRA /TSCA Testing & Trial Burns
- CO<sub>2</sub> speciation (fossilized vs. biogenic)

### Engineering, R&D and Diagnostic Testing

- Combustion Engineering & Emissions Profiling
- Abatement Device Control System Efficiency
- Mass Balance Determinations
- Method Development & Evaluation
- Technology / Instrument Comparisons

### Other Capabilities

- Temporary CEMS Integration
- 3-D Velocity Pitot Flow Evaluations
- Ambient Air and Fence Line Testing
- PM Dilution Tunnel Testing (CTM-039)
- Regulatory Permitting, Modeling & Assessment