



STACK TESTING / AMBIENT AIR

CUSTOMER FOCUSED; COMMITMENT DRIVEN

Working Together to Protect What Matters Most

At Pace® Science and Technology company, our vision is simple: To protect our environment and improve our health. We believe our work is integral to a cleaner, safer planet. We do this in partnership with you by providing the science – and the data – you need to make the right choices for the benefit of all. In working with us, you will find that your Pace® partners are committed to the success of your project.

PACE® - YOUR FULL-SERVICE EMISSION TESTING PARTNER

Pace® offers a complete range of stack emissions testing designed to complement and support your needs by working with facility environmental and process engineers, consultants, and government regulatory agencies. With over 40 years of experience, Pace® applies innovative solutions to environmental challenges and routine methodologies to cost effectively serve your emission monitoring needs.

- National Experience - Compliance testing in over (40) states
- Accredited to ASTM D7036-04, ISO/IEC 17025:2017, and TNI FSMO 2014
- Extensive Formalized Safety Program (ISNetworld, BROWZ, PEC Premier, SMI)
- Customer Service: Single Point of Contact and Dedicated Project Manager

REGULATORY COMPLIANCE, DIAGNOSTIC AND ENGINEERING STACK EMISSION TESTING

- Maximum Achievable Control Technologies (MACT)
- National Emission Standards for Hazardous Air Pollutants (NESHAP)
- New Source Performance Standards (NSPS)
- Prevention of Significant Deterioration (PSD)
- EPA Title III and Title V Permits
- Clean Air Act Section 112 (r)
- National Ambient Air Quality Standards (NAAQS)
- Emission Control Equipment Specification
- Process Evaluation and Optimization
- CEMs and PEMs Certification (RATA, CGA & COMs)
- Trial Burns & Dry Sorbent Injection (DSI) Studies
- Selective Catalytic and Non-Catalytic Reduction (SCR & SNCR)
- Capture & Destruction Removal Efficiency (DRE)
- Permanent or Temporary Total Enclosure (PTE/TTE)
- Information Collection Rule (ICR) Emission Profiling
- Internal Combustion Engines (RICE & ICE) Part 60 JJJJ & Part 63 ZZZZ
- Leak Detection & Repair (LDAR)

QUALITY

Pace® Field Services operates under a robust Quality Management System (QMS) designed specifically to meet air emissions compliance requirements and regulations. Pace® holds accreditation through the American Association of Laboratory Accreditation (A2LA) for three recognized standards:

- ASTM D7036-04 – Standard Practice for Competence of Air Emission Testing Bodies (AETB)
- ISO/IEC 17025:2017 – General requirements for the competence of testing and calibration laboratories
- TNI FSMO:2014 – General Requirements for Field Sampling and Measurement Organizations

In addition to the above, we also conduct EPA CTM & OTM procedures. Pace® has the expertise to provide specialized testing for customers even where there are no EPA methodologies

Pace® employs experienced technicians, who are recognized by the Source Evaluation Society (SES) as Qualified Source Testing Individuals (QSTIs), to conduct test methods and operate a variety of instruments, monitors, and other air technologies. Our highly trained field team provides accurate, traceable data with advanced industry solutions and unmatched customer service.

Pace® is accredited for over 100 air emissions test methods. Contact Pace® for the current scope of accreditation or for additional information on the QMS. A listing of our locations with contact information can be found on our website.

SAFETY

Pace® places a top priority on safety. We have an extensive formalized safety program including frequent training (OSHA-10) and well-maintained equipment for confined entry, traffic, full protection, and personal protection.

Our safety program provides for the welfare of our staff and reduces the chance of issues while on our clients' properties. We participate in ISNetworld, PEC Premier, SMI, Avetta, and Apprux safety management programs, and we currently have "A" ratings with these organizations. Our EMR and OSHA 300 logs are available upon request.

TEST PLAN PREPARATION & COMPLIANCE REPORTS

Our team of regulatory experts, project managers, scientists, technicians, and quality analysts have been conducting stack emissions testing for over 40 years. Pace® scientists and project managers are committed to the success of your project. We work closely with our clients' personnel and regulatory staff to coordinate the execution of all project requirements from inception to final report review.

For convenience and consistency, a project manager is assigned to each test event. Test plans are prepared well in advance of the test date for regulatory review and planned site visits. Our report format has been designed based on input from regulatory staff and clients. The report allows for a quick view summary as well as in-depth test specifications. Another service we provide is the entry of results into the EPA Electronic Reporting Tool (ERT).

EXPERIENCE

We routinely work with control and process equipment that includes thermal oxidizers, scrubbers, electrostatic precipitators, cyclone dust collectors and baghouses, boilers and industrial furnaces, flares, turbines, reactors, extruders, kilns, dryers and coolers, vapor combustion units (VCU) and vapor recovery units (VRU).

Our industrial clients include:

petroleum refineries and asphalt production

chemical manufacturing

wood pulp and paper

ferrous and non-ferrous foundries

smelting and ore mining operations

municipal sludge

hospital and industrial waste incineration

ethanol and biofuel

agriculture and food processing (corn, soybean, sugar beet)

energy and power generation

oil and gas pipelines

pharmaceutical manufacturing

coating and printing facilities

cement production

plastics manufacturing

**We deliver flexible
deployments and
individualized solutions
regardless of a facility's
size or complexity.**

GAS-PHASE FOURIER TRANSFORM INFRARED (FTIR) SPECTROSCOPY SERVICES

Emission concerns and plant process improvement are increasingly common needs. Timely resolution of operating issues is critical for cost-effective process improvement and environmental success. Gas-Phase Fourier Transform Infrared (FTIR) Spectroscopy provides real-time evaluation of gaseous constituents to quickly identify problems and implement solutions.

FTIR technology offers a huge advantage over other sample collection procedures by analyzing both gaseous organic and inorganic compounds simultaneously onsite with immediate results. FTIR testing is fast becoming the preferred method for monitoring stack emission sources such as chemical manufacturing, ethanol production, wood products, electronics and automobile industries because it provides continuous measurements for trending analysis and immediate results, allowing you to make quick decisions.

Pace® Field Services professionals are experts in the use of this dynamic measurement tool and have applied this testing technique to a variety of process operations. Gas-Phase FTIR is the superior option when monitoring inorganic gases, acid fumes, volatile and semi-volatile organic compounds (i.e. HAPs). This field analytical technique provides continuous measurements for trending analysis and immediate results, allowing you to make quick decisions.

Pace® routinely employs EPA Methods 318, 320, 321, ASTM D6384 and NIOSH 3800 for air quality investigations, emission compliance, process evaluations and optimization. FTIR chemistries include more than 1,000 identifiable compounds with concentration ranges from low ppm to percent level.

FTIR CHEMISTRIES

- Aromatic, Aliphatic, Alcohols
- Epoxides, Ethers, Ketones
- Greenhouse Gases (Ozone, CFCs)
- Acid Gases (HBr, HCl, HF, HCN)
- Formaldehyde & other Aldehydes
- Inorganic Gases (CO, NH₃, N₂O, SO₂)

Pace® can deploy several FTIR analyzer systems to monitor multiple process inlets and outlets or to specifically resolve low analyte measurements in high gas concentrations.

[CONTACT US](#)

SERVICES FOR CONTINUOUS EMISSIONS SYSTEMS (CEMS) AND CONTINUOUS OPTICAL MONITORING SYSTEMS (COMS)

Pace® provides certification of your continuous emission monitoring system (CEMs) and continuous optical monitoring systems (COMs) to meet 40 CFR Part 60 and Part 75 regulations. We use performance specifications for evaluating the acceptability of the CEMs after installation, replacement or as specified in the permit regulations. Our knowledge of regulations and our extensive experience with various sources and types of control equipment will assure you of defensible data for compliance to national and local directives for measuring and reporting emissions.

- System Performance (Linearity, Drift, Response)
- Cylinder Gas Audits (CGA)
- Relative Accuracy Test Audits (RATA)
- Continuous Opacity Monitoring Systems (COMs) Performance Specification 1
- Temporary CEMs Rental & Installation

AIR QUALITY SERVICES

Pace® Field Services professionals are trained to conduct onsite ambient fenceline, indoor air quality and employee exposure monitoring services following published EPA, NIOSH and OSHA methodologies. Environmental investigations for industry-specific chemicals include: particulates, metals, acid & welding fumes, solvents & VOCs and process gas measurements. Samples are collected using PUF cartridges, Summa canisters, sample bags, sorbent tubes, liquid impingers and filter media.

Ambient & Fence Line Monitoring

- EPA Inorganic Compendium Methods IO-1, 2 & 3 for Particulates PM-10,
- PM-2.5 & TSP Metals
- EPA Toxic Organic Compendium Methods TO-3, 9, 13, 14, 15, 17 for VOCs, Dioxins & PAHs
- EPA 325 A & B, Passive Fence Line Monitoring
- AP 42 C.1 & C.2 Road Dust
- FERC Noise Monitoring
- Calibration and maintenance for high volume samplers (BGI, Thermo, Tisch)

Indoor Ambient Air and Personal Monitoring

- NIOSH & OSHA field monitoring, NVLAP accredited laboratory support
- Handheld Monitors for Process Gases (CO, CO₂, O₂, NO_x, SO₂, H₂S) and Mercury Vapor

