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Experience Meets Complexity

Industry today faces ever-changing and increasingly complex regulatory requirements for air emissions. Every day, the engineers and scientists at Clean Air Engineering apply decades of experience to help our clients understand and comply with these requirements. Our expertise includes assisting clients with permitting issues, regulatory negotiations and consent decrees, training, and of course, air emissions testing and monitoring. Whether it's MACT, NSPS, NSR or Title V, or a local or state issue, the experts at CleanAir can help.

CleanAir provides products and services for air quality management and thermal performance worldwide from operations in the U.S, Europe, and the Middle East. Since its founding in 1972, CleanAir has become a leader in air quality issues successfully taking on some of the largest and most complex projects our clients can give us. These clients include representatives from **Refining and Petrochemical, Power Generation, Chemical, Metals, Hazardous Waste Incineration and Pharmaceutical.**



Need help with your Flare Management and Performance program?

Contact Scott Evans:
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Flare Management & Performance
Flare Training

www.cleanair.com





Flare Management and Performance

Because of our extensive involvement with flare issues over the past several years, CleanAir is in a unique position to assist with selecting flare management options compatible with EPA expectations – from both an enforcement perspective and potential future rule making.

CleanAir has been an integral participant in several high profile EPA/DOJ Consent Decree negotiations, and has developed white papers and other research to support industry positions. These efforts have led to achievable, science-based settlements that helped our refinery and chemical clients retain the flexibility they need to cost-effectively meet their flare-related compliance obligations.

One of the unique services CleanAir provides is remote flare performance testing with Passive FTIR. This technology, which has been proven as a reliable technique to directly measure flare combustion efficiency.

For refineries and chemical plants looking to begin collecting baseline data from uninstrumented flare systems, CleanAir offers an integrated 30/60/90+ day rental instrumentation solution to monitor vent gas and steam flow, as well as speciated hydrocarbons, hydrogen, and inert compounds (such as nitrogen) – all in real time.

CONSULTING SERVICES

- Assistance with regulatory agency negotiation
- Research/White Paper development
- Training
- Regulatory and litigation support
- Flare instrumentation review and specification
- Momentum Flux Ratio (MFR) analysis
- Site specific steam correction factor development
- Permitting
- Site inspections
- Test method development/refinement
- Friendly advice

TESTING SERVICES

- Passive FTIR flare studies
- Vent gas sampling and analysis (i.e. Method 18)
- EPA compliance testing
- Greenhouse gas monitoring
- Performance guarantee testing
- Thermal performance testing
- Fenceline monitoring
- Ambient air monitoring
- On site gas chromatography/FTIR

INSTRUMENT RENTAL SERVICES

- Steam and vent gas flow
- Hydrogen concentration
- Nitrogen concentration
- Speciated/Total hydrocarbons
- Greenhouse gases
- Ambient air monitors
- Stack gas monitors
- Gas chromatograph
- FTIR

OTHER CLEANAIR PRODUCTS AND SERVICES

- Sampling equipment and supplies for air testing
- Sorbent mercury samplers
- Thermal efficiency/heat rate studies
- Cooling tower particulate emissions tests
- Particulate characterization/particle size
- Particle resistivity analysis
- High temperature/pressure gas sampling
- Regulatory/testing training

Resourceful and Innovative

Since its inception, CleanAir has brought innovative thinking and problem solving to the air quality management and testing field. That's why we have been tapped by some of the largest refiners and chemical companies in the United States for assistance in flare management and testing. No one else has the depth of knowledge and experience that CleanAir brings to the table.

Technology Development

When our clients came to us needing a reliable alternative to the cumbersome and expensive techniques traditionally used for flare performance testing, CleanAir worked with these clients and with IMACC, a leader remote sensing technology, to refine a method that has become the standard for remote flare performance testing. Using this method along with the hardware and software developed by IMACC, real-time flare performance testing has become practical for the first time.

Real-World Solutions

When our clients needed technical advice and support to take this data and turn it into practical flare operating procedures, CleanAir once again worked with these clients to develop new flare control strategies that provide maximum flexibility for the plant while ensuring high levels of environmental performance.

Regulatory / Litigation Support

When our clients needed to present these solutions to EPA or other regulatory or legal entities for their buy-in and approval, CleanAir translated this highly technical information into clear, easy-to-understand language without sacrificing technical integrity in the process. Taking complex ideas and explaining them simply is one of our core competencies.

Make CleanAir Part of your Flare Team

We are happy to talk with you at any time about your flare issues. Give us a call or send us an email. Are you just starting to think about your flares? A short CleanAir webinar or training session for your personnel is a great way to start.

You can't control what you don't measure.

