Software Determines the Impact of High-Purity Oxygen Aeration

Volatile organic compound (VOC) emissions can be reduced or eliminated using high-purity oxygen (HPO) as the aeration source. Toxchem, an air-emissions and contaminant-fate modeling software package, now includes the Hydromantis HPO module for determining the impact of HPO systems on odor and air-pollution reduction at wastewater treatment facilities. It allows users to quickly evaluate the impact of HPO-based oxygenation on the reduction of specific VOC and odor emissions, and compare that performance to the performance of conventional aeration systems.

Praxair
www.praxair.com
Booth 1035

Advanced Modeling System Speeds Dispersion Modeling

The BeestXpress Aermod modeling system performs dispersion modeling up to 30 times faster than the regular Beest Aermod desktop software, completing large air-quality modeling runs in a matter of hours, rather than days. BeestXpress uploads Aermod input files to the company's modeling server and splits the receptor grid into many partitions (up to 30) for faster processing. Once finished, the output is merged into a single output file that is identical to a local Beest Aermod run.

Oris Solutions, LLC
www.oris-solutions.com
Booth 803

Gas Analyzer Measures H_2S and SO_2 Concentrations

The Serinus 51 gas analyzer combines fluorescence detection with an internal thermal catalytic converter to sequentially measure hydrogen sulfide (H_2S) and sulfur dioxide (SO_2) concentrations. It can measure these gases in the range of 0–2 ppm with a detection limit of 0.5 ppb. If required, sequencing can be turned off, and the sensor can continuously measure just H_2S or just SO_2. Measurement involves two cycles. In the first cycle, a sample is passed through an internal scrubber to remove SO_2, an internal catalytic converter converts the H_2S to SO_2, and the converted SO_2 is measured via the fluorescence technique — which effectively gives a measurement of the original amount of H_2S. In the second cycle, SO_2 bypasses the scrubber and converter, and is measured with the fluorescence technique.

American Ecotech
www.americanecotech.com
Booth 406

Service Monetizes Climate Change Risk and Mitigation Options

The TORCH service helps companies understand and quantify the impacts of extreme weather and changing climate. It allows clients to monetize the benefit of severe weather and climate change risk-mitigation options. The software-supported approach organizes historic data on regional weather and related events, predicts the risk of similar events occurring in the future, and introduces measures to reduce their impact. The five-step TORCH methodology analyzes extreme weather risk in different parts of the world, assesses the vulnerability of sites based on their geographic locations, incorporates climate science projections to define changing risk scenarios, makes future predictions based on past events combined with climate change scenarios,

and helps an organization to budget for and implement adaptation measures. Typical events considered by TORCH include rising sea levels and temperatures, lightning strikes, and extreme storms.

Environmental Resources Management (ERM)
www.erm.com
Booth 503

Emissions Monitoring System Weighs Less Than 60 Pounds

This Fourier transform infrared (FTIR) spectroscopy emissions-monitoring system is both compact and portable. It includes the Model DX-4000 FTIR gas analyzer, portable sampling system (PSS), heated sample probe, and heated lines. The complete system can test for up to 40 gases simultaneously. It does not require liquid nitrogen to operate, and the total system weight is under 60 lb. Employing hot/wet extractive sampling, it is ideal for accurately and representatively testing reactive gases such as ammonia, acid gases, hydrogen chloride (HCl), hydrogen fluoride (HF), and hydrogen cyanide (HCN). It can also measure volatile organic compounds (VOCs), including formaldehyde, acrolein, and acetaldehyde.

Gasmet Technologies, Inc.
www.gasmet.com
Booth 414