



Air Quality Services

Compliance with today's air quality regulations is a complex, ongoing activity that can have a significant impact on a company's image and competitive performance.

Federal, State and local air quality regulations including Prevention of Significant Deterioration (PSD) and nonattainment New Source Review (NSR), Title V operating permit program, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Greenhouse Gas (GHG) requirements, etc. change continually. In this climate, even companies with large dedicated environmental departments may find it a challenge to keep up with all types of air issues.

ACHIEVING YOUR GOALS WITH AIR QUALITY EXPERTISE

Complying with air quality regulations can be costly, complex, and time consuming. You need a caring and experienced team who will understand your needs, and provide assistance

in an efficient and timely manner. We can draw from a resource base of more than 7,000 worldwide professionals and provide cost-effective engineering solutions.

Our experienced air quality team works with many industries including power, landfills, mining, oil and gas, energy and manufacturing to identify, report and control air emissions, obtain or change air permits, perform air dispersion modeling, negotiate permit conditions with federal and state agencies, and provide expert testimony. We also perform noise, air quality, and meteorological monitoring and prepare Environmental Impact Assessments.

FULL RANGE OF SERVICES

- Permitting (e.g., Title V, Minor Source, PSD, Nonattainment NSR)
- Emission inventory development
- RACT, BACT, MACT, LAER, BART, CAIR, and CAMR Assessments
- Air pollution control technology evaluations
- Air Modeling Analysis (e.g.,

NAAQS, PSD increments, visibility, risk assessments) using AERMOD and CALPUFF

- Ambient air quality monitoring and CAM plans
- Regulatory assessments and compliance audits
- Air permitting strategy
- Fugitive dust assessment
- Toxic chemical release inventory report preparation
- Landfill gas collection and control system design
- Indoor air quality evaluations
- Meteorological monitoring
- Litigation support, including expert testimony
- Stack testing protocols, VE testing, and stack testing oversight
- Ambient noise monitoring and modeling (CADNA)
- Environmental Impact Assessments
- GHG emissions estimation and reporting
- Odor monitoring and modeling

AIR QUALITY SERVICES

Golder's Air Quality Services Group works closely with clients and regulators to help comply with complex and constantly changing air regulations and stay on top of issues. We understand air emissions and regulations and thrive on challenges.

PROJECT HIGHLIGHTS

*Florida Power & Light Company
Riviera Beach / Cape
Canaveral, Florida*

Golder provided the licensing services for approval for two modernization projects that involved replacement of existing steam plants with state-of-the-art combined-cycle units. Each new unit is a nominal 1,250 megawatt (MW) 3-on-1 natural gas fired combined-cycle unit that will replace two 1960s vintage oil- and gas-fired units.

The new unit will utilize natural gas, advanced combustion technology, and selective catalytic reduction (SCR) to minimize air emissions.

The result is over a 50 percent increase in generation while reducing air emissions by about 90 percent reduction of regulated air pollutants other than greenhouse gases (GHG). GHG emission rate is decreased by 50 percent. The licensing was conducted under Florida's Power Plant Siting Act and also included the air construction permitting under the Florida Department of Environmental Regulation (FDEP). Due to air emission reductions, Prevention of Significant Deterioration (PSD) review was not required. A complete air emission evaluation was



conducted using FDEP regulations related to baseline and projected actual emissions to demonstrate no net significant increase in emissions. Air dispersion modeling using U.S. Environmental Protection Agency (EPA) and FDEP procedures was conducted to show the potential air quality impacts from different stack configuration associated with the combined-cycle unit.

*U.S. Sugar Corporation
Palm Beach and Hendry
Counties, Florida*

For more than 12 years, Golder has provided air quality services to the U.S. Sugar Corporation, the country's largest producer of sugar cane and refined cane sugar. The company farms nearly 200,000 acres of the most productive farmland in the United States and some of their mills can process nearly 45,000 tons of sugar cane a day. Our air quality services included air permitting, air modeling impact evaluations, annual operating reports, MACT compliance, toxic release inventory reporting, and CAM plans.

*Republic Services
Air Permitting and Compliance,
Las Vegas, NV*

Golder has been assisting Republic Services with air permitting and compliance services for the Apex Regional Landfill, Laughlin Landfill, closed Sunrise Landfill, Henderson & Sloan Transfer Stations, and Republic's state-of-the-art Transfer Station and Recycling Complex; all located near Las Vegas, NV. The Landfill also consists of a soil treatment operation, a sand and gravel operation, and a landfill gas-to-energy plant. Currently assisting Republic with multiple engineering projects at the Apex Landfill, which is one of the largest municipal solid waste landfills in the US.