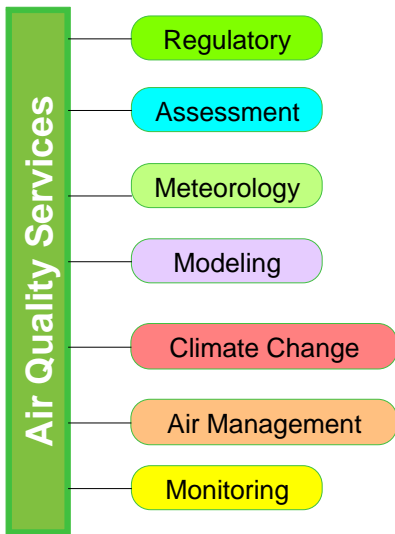


Compliance with today's air quality regulations is a complex, ongoing issue, which can have a significant impact on a company's image and competitive posture.

Details of major Clean Air Act requirements, such as the Environmental Compliance Approval (ECA), Environmental Activity and Sector Registry (EASR), operating permit program, are changing on a daily basis. In this climate, even companies with large, dedicated environmental departments are finding it a challenge to keep up with regulations and provide adequate staffing for short-term needs.

GEEC's Air Quality Services Group works with clients in a team approach to help manage all types of air quality issues cost-effectively.



Challenge

Preliminary results indicated high ground level concentrations of NO₂ close to project site and residents complained of breathing issues & respiratory problems.

GEEC Solution

Conducted refined grid modeling with receptors every 50 m apart close to project area. Source contribution analysis used to identify causes and proposed mitigation measures.



Air Quality Services GEEC Ltd.

A Team Approach

GEEC's Air Quality Services Group offers a cost-effective, three tier approach for addressing the complex regulatory, planning, scientific and engineering requirements of air quality compliance.

Identifying and tracking the myriad of existing and proposed new regulations that may impact our clients' specific operations is the foundation of our approach. Our regulatory specialists perform this vital function on a daily basis, allowing us to provide our clients with advance notice of impending requirements.

Helping our clients interpret existing and proposed new regulations and plan how and when to take action is our next concern. Our technical and regulatory specialists are skilled in planning compliance for maintaining maximum operational flexibility at the lowest cost.

Finally, when further action becomes necessary, GEEC provides the broad array of scientific and engineering skills necessary that save our clients' valuable resources for more productive uses. As examples, we prepare emission inventories, permit applications and monitoring plans. GEEC professionals also recommend, and write the specifications for air pollution control technologies.

Our Air Quality Services Group is part of an extended team available to assist with related environmental projects, such as pollution prevention and waste minimization programs, industrial toxicology, and process engineering.

Excellent Resources

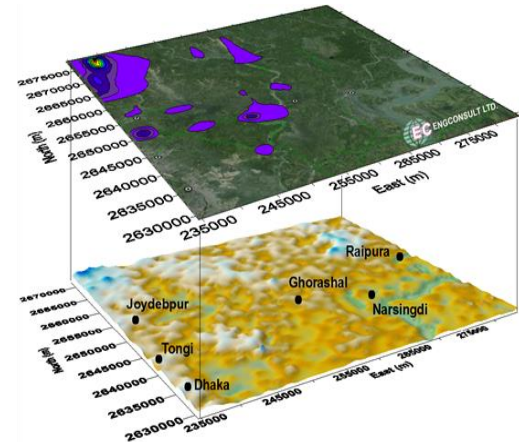
A broad range of scientific and engineering disciplines is necessary to handle complex air quality issues that may range from regulatory analysis to control system design.

GEEC's Air Quality Services team is drawn from a wider resource personnel in key technical disciplines including:

- ✓ Environmental Engineering
- ✓ Environmental Science and Management

- ✓ Meteorology
- ✓ Chemical Engineering
- ✓ Mechanical Engineering
- ✓ Biology

Many of our professionals have advanced degrees, Doctoral in most cases and are licensed professionals and recognized in their fields. Complex air quality issues also require excellent technical resources. Our Air Quality Services Group employs the latest regulatory air dispersion models, computer databases, emission and cost estimation references and softwares, and GIS & CAD packages.



Challenge

SO₂ emission from an existing powerplant is exceeding the national air quality standards

GEEC Solution

Emission offset achieved by the introduction of state-of-the-art emission control technology to bring the plant in compliance with both national standards and IFC Emission Guidelines.



Full Range of Services

GEEC offers a complete range of air quality consulting and engineering services, including the following:

REGULATORY

- ✓ Air Policy Development
- ✓ Regulatory Permitting
- ✓ Change Management
- ✓ Public and Regulatory Liaison
- ✓ Compliance Assessments
- ✓ Air Emissions Abatement
- ✓ Assessment of Best Available Control Technology

ASSESSMENT

- ✓ Environmental and Social Impacts
- ✓ Environmental Screening-level
- ✓ Ambient and Indoor Air Quality
- ✓ Fugitive Dust
- ✓ Noise
- ✓ Point, Line, and Area Sources Impact
- ✓ Air Pollution Exposures
- ✓ Health Impacts

MODELLING

- ✓ Regulatory Modelling including CALINE 4, CALPUFF, and AERMOD.
- ✓ Combined Monitoring and Modelling Assessments
- ✓ Point, Line, and Area Sources Emission Modelling
- ✓ Exposure Modelling
- ✓ Micro-scale Modelling
- ✓ Urban and Regional Scale Modelling

AIR MANAGEMENT

- ✓ Airshed Emission Inventories
- ✓ Air Quality Forecasting
- ✓ Policy and Planning for Urban Growth
- ✓ Air Quality Policy Development
- ✓ Data Management/ Analysis Systems

METEOROLOGICAL

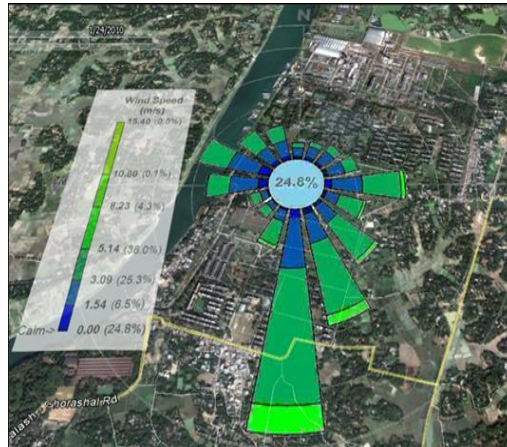
- ✓ Wind Flow Analyses
- ✓ Wind Resources Analysis and Simulation

MONITORING

- ✓ Ambient and Indoor Air Monitoring
- ✓ Source Testing & Emission Control Evaluation
- ✓ Noise Sampling and Analysis

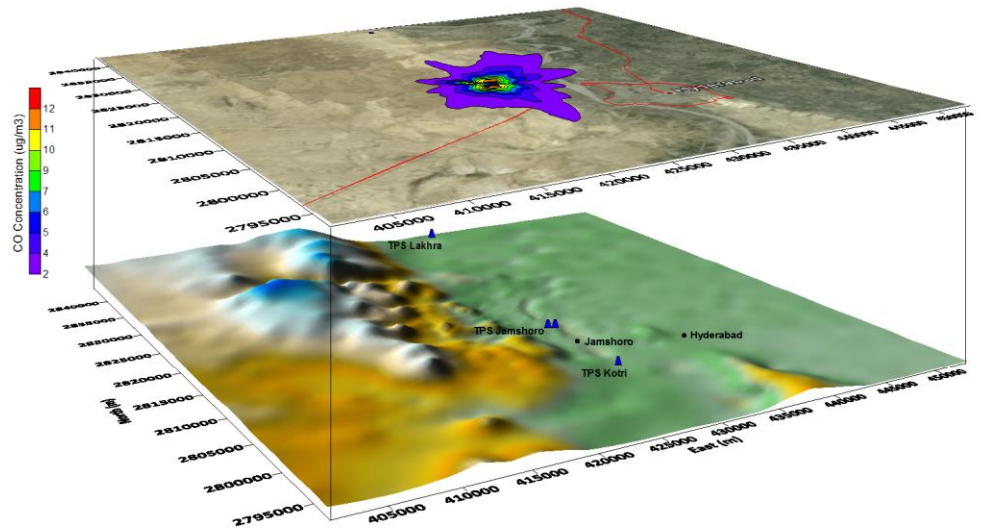
CLIMATE CHANGE

- ✓ Greenhouse Gas Emission Inventories
- ✓ Greenhouse Gas Mitigation Plans
- ✓ Climate Adaptation
- ✓ Historical and Future Analyses and Trends
- ✓ Clean Development Mechanism
- ✓ Institutional Strengthening in CDM



GEEC Ltd.

GEEC Ltd. is a multidisciplinary consulting firm established in Toronto and maintains a Certificate of Authorization from Professional Engineers of Ontario. The key element of its strategy is the ability to combine the latest worldwide professional advances with a thorough knowledge of the local socio-economic conditions to reach solutions that are optimal, cost effective and reflects local needs.



Head Office

GEEC Ltd.
108 Earlsbridge Blvd.
Brampton, Ontario, Canada, L7A 3W7
Tel: 1 905 455 7892 Fax: 1 905 455 2351
Email: info@geec.ca
Web: <http://www.geec.ca>



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