Air Dispersion Modeling

Technology Overview

Air emissions from stacks and other sources can cause health and nuisance problems not only in the locality but sometimes 10's of km away. Air Dispersion Modeling can predict whether there will be problems with emissions from a site and help explore the effect of various solutions. The Air Dispersion model will take the stack emissions and combine these with the weather conditions and effects of topography (hills, buildings etc.) and then predict the concentration at ground level of the emissions. The concentrations of the substances are then generally compared to the Ambient Air Quality standards.

Potential Application

- Industry Permitting/Siting.
- Design of Stacks.
- Design of Air Pollution Control Systems.
- "Culpability" Analysis.
- Prediction of Air Quality (For the existing condition, by varying existing conditions and to find adequacy of mitigation/control technology).
- Selection of Air Quality Monitoring Locations.
- Evaluation of the Impact of New Pollution Sources (Industry expansion and/or modification and proposed projects, EIA, IEE).
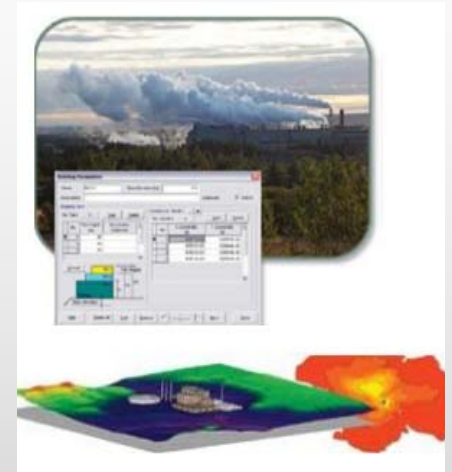
Advantages

Air dispersion modeling helps in forecasting any issue related to air emissions from existing or proposed industry or any other type of facility beforehand and therefore most suitable solution can be implemented accordingly.

Inventor/s:

Eng. Kalika Kumarasinghe

Eng. Hasanthie Dissanayake

Technology Information:

Senior Deputy Director,
Environmental Technology Section,
Industrial Technology Institute,
363, Baudhaloka Mawatha,
Colombo 07.

E-mail: sdd_ets@iti.lk
Fax: +94-11-2379915
Phone: +94-11-2379905