

PRACTICAL AIR DISPERSION MODELING WORKSHOP - INTERNATIONAL

This 3-day course focuses on the fundamentals of air dispersion modeling and is designed for those who need to conduct air dispersion modeling assessments, sharpen their existing modeling skills, or better understand results prepared by others. It provides hands-on instruction in particular on the use of AERMOD, the U.S. EPA's preferred computer model recommended for estimation of ambient impacts of air pollutants emitted from industrial sources, and CALPUFF. This course reviews the scientific theory behind these dispersion models with an emphasis on formulating and conducting an air quality analysis from start to finish utilizing the refined model options. During the course, students will use BREEZE modeling software to analyze case studies and gain practical experience in processing meteorological and geophysical data and source inputs to the models, running and analyzing model output, and post-processing results to visualize and document predicted impacts.

Course fee includes a comprehensive resource manual, refreshments, and lunch.

AGENDA: Registration and Coffee at 7:45 a.m.

Course Adjourns at 5:00 p.m.

COURSE TOPICS:

- Overview of Air Dispersion Modeling
- ► A Layman's Crash Course on the Physics of the Atmosphere – Its Character, Variability, and Subjective Effect on Pollutant Releases
- ▶ Estimating the Effective Height of Sources
- ► Estimating Dispersion from Continuous Releases
- ► Estimating Dispersion from Puff, Line, and Area Sources
- Inputs to Models
- Screening Models
- Steps in Performing an Air Quality Analysis
- Dispersion Model Selection
- ► Fundamentals of Gaussian Dispersion Models
- The AERMOD Modeling System

- The CALPUFF Modeling System
- ► Formulating Model Input Data
- Model Options and Objects
- Terrain Characterization
- Building Wake Effects (PRIME)
 - Downwash of Plume by Structures
- ▶ Fundamentals of Meteorological Data
- Processing
- Productivity Tools 3D Analyst, Downwash Analyst
- Advanced Output Options
- Culpability Analyses
- Advanced Modeling Techniques Hands-on Exercises

About Trinity Consultants

Trinity Consultants is a leading provider of environmental consulting services to industry, with renowned expertise in the areas of air permitting and environmental management. Our instructors are full-time consultants with extensive experience in their area of instruction. Their daily, direct experience with projects translates into a practical and effective learning opportunity for all attendees.

For additional information, call 800.613.4473 or register online at trinityconsultants.com