AERMOD is a steady-state Gaussian dispersion model that represents the current state-of-the-science and preferred dispersion model of the U.S. EPA. The AERMOD system includes:

- Advanced meteorological preprocessor to compute site-specific planetary boundary layer (PBL) parameters
- Enhanced treatment of plume rise and plume penetration of elevated inversions
- Improved computation of vertical profiles of wind, turbulence, and temperature

There are two regulatory components of EPA's AERMOD:
- AERMAP - a terrain data preprocessor
- AERMET - a meteorological data preprocessor

BREEZE AERMOD is an enhanced version of the U.S. EPA-approved AERMOD that provides modelers with the tools and functionality required to perform air quality analyses that help to address both permitting, regulatory, and nuisance issues as well as perform academic research. In addition to including all of the standard U.S. EPA source types and features, BREEZE AERMOD includes exclusive BREEZE features such as a flare source type and the ability to model pollutants at the same time. BREEZE helps users choose among model options and executable versions. Once the modeling run has been set up, choose from the latest regulatory version of AERMOD or older versions of the model for analyses.

BREEZE AERMOD/ISC offers the most complete air quality modeling system available on the market today. No other application is used by more air quality professionals around the world.

Robust Tools and Features

Familiar User-Interface with Intuitive Process Flow
The intuitive and friendly user interface of BREEZE AERMOD is designed similar to Microsoft® software interfaces. As a result BREEZE AERMOD seamlessly guides users through setting up their modeling scenarios in a quick and efficient manner.

Model Setup Tools
BREEZE AERMOD provides a variety of tools to speed model run set-up, facilitate file management, and improve results display. These include:

- **Data tab** to provide a means of viewing project data in a spreadsheet view, allowing users to copy and paste directly from Excel, sort data, change model IDs, and filter objects by data types
- **Map tab** which allows import of DXF files, shapefiles, or base map images as well as visualization and graphical editing of model objects
- **Coordinate Converter** to convert model coordinates between hundreds of coordinate systems
- **Hourly Emission File Editor** to create, view, and edit hourly emission rate files for modeled sources
- **Import tool** to import model objects from existing scenarios
- **On-Site or Off-Site Receptors tool** to remove receptors in batches for faster model setup
- **Variable Density Grid, Polygon Grid, and other drawing tools** to quickly create receptor grids and other model objects
- **U.S. EPA BPIP Prime program** integration to automatically process building information
- **Source grouping tools** to quickly assign source groups
Quickly Extract and Summarize Results

BREEZE AERMOD provides extensive graphical and tabular results options to facilitate both analysis and documentation. Standard HTML reports provide information on model options, sources, model results, maximum concentrations, and error and warning messages. Customized reports are also available.

The more extensive the analysis, the longer runtimes are observed with EPA’s AERMOD. BREEZE created a parallel processing version of AERMOD to slash runtimes using a multi-core processor or distributed computer network (cluster).

Advanced Post-Processing Options and Graphical Results

BREEZE 3D Analyst is a powerful post-processor that enables you to analyze and visualize data in time series, 2D and 3D contour plots, and 3D isosurface and plane views; and to accomplish post-processing tasks such as adding/subtracting the results of two model runs or adding background concentrations. It is useful for analyzing meteorological, terrain, and concentration data. Animated movies can be created for display in presentations and users can export results to Google Earth™ and Golden Software’s Surfer®.

Data Analysis Tools

BREEZE Downwash Analyst simplifies the process of interpreting building downwash data in BREEZE AERMOD. This data analysis tool (available as a separate BREEZE application) takes the cryptic numerical results of AERMOD’s BPIP building pre-processor and displays them visually, clearly showing the effects of buildings on AERMOD results.

BREEZE MetView illustrates and analyzes local meteorological conditions to display meteorological data in both tabular and graphical format. MetView can be used to create wind roses for user-defined periods.

BREEZE AERMOD is available in two editions: Pro and Pro Plus. BREEZE AERMOD Pro Plus includes all of the features of the Pro edition, as well as additional features such as the ability to create animations, export results as shapefiles, and use additional source contribution analysis tools.

Visit breeze-software.com/AERMOD to learn more about BREEZE AERMOD. For a software demonstration, contact BREEZE at +1 (972) 661-8881 or breeze@trinityconsultants.com.