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EPA Releases AERSCREEN - an Update to AERMOD is also due to be Released

In March, EPA released AERSCREEN, a screening model based on AERMOD. AERSCREEN will generate estimates of "worst-case" 1-hour concentrations for a single source, without the need for hourly meteorological data, and also includes conversion factors to estimate "worst-case" 3-hour, 8-hour, 24-hour, and annual concentrations. AERSCREEN is intended to produce concentration estimates that are equal to or greater than the estimates produced by AERMOD with a fully developed set of meteorological and terrain data. AERSCREEN will replace SCREEN3, the current regulatory screening model. The three areas where AERSCREEN deviates significantly from SCREEN3 are:

- 1) Building wake effects – AERSCREEN utilizes all the advantages of the PRIME algorithms that are utilized in AERMOD including stacks detached from the building. This additional information is to address downwash, including the orientation of the maximum building dimension relative to north, angle relative to north of the stack and, distance between the stack and building center.
- 2) Meteorology – AERSCREEN provides three options for generating the screening meteorology. AERSCREEN will setup and run the MAKEMET program to generate the screening meteorological data for input to AERMOD.
- 3) Terrain – AERSCREEN provides the option for incorporating terrain impacts on the screening analysis. AERSCREEN will utilize digital terrain data from Digital Elevation Model files or the National Elevation Dataset available from the USGS.

More information can be found at
http://www.epa.gov/ttn/scram/dispersion_screening.htm#aerscreen

EPA also announced that an updated AERMOD model was to be released in mid-March (as of press time the model had not formally been released). In anticipation of the update to AERMOD, EPA released draft user's guide addenda for the updates to AERMOD, AERMET, and the new AERMINUTE program. These documents are available on EPA's SCRAM modeling site <http://www.epa.gov/scram001>