

US EPA ARCHIVE DOCUMENT

# **AERSCREEN and AERMINUTE Updates**

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# AERSCREEN updates

- Current version 14147
  - Modified to work with AERMOD 14134
  - Bug fixes
- Future updates
  - Incorporate SCREEN3 fumigation options (inversion break-up; coastal)
  - Miscellaneous changes (enhancements, portability across OS)

# Screening updates and Appendix W

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- ▶ Workgroup composed of OAQPS staff
- ▶ Codify AERSCREEN as recommended screening model
  - ▶ Replace SCREEN3
  - ▶ Revise screening text in Appendix W as appropriate including discussion of MAKEMET

# AERSCREEN as EPA recommended screening model

- AQMG released a clarification memo on April 11, 2010 recommending AERSCREEN as screening model
- SCREEN3 has been recommended screening model

*“With respect to a screening version of AERMOD, a tool called AERSCREEN is being developed with a beta version expected to be publicly available in Fall 2005. SCREEN3 is the current screening model in the Guideline, and since SCREEN3 has been successfully applied for a number of years, we believe that SCREEN3 produces an acceptable degree of conservatism for regulatory applications and may be used until AERSCREEN or a similar technique becomes available and tested for general application. “*

Appendix W Preamble Part IV, Section C, paragraph 7 pg. 68221

# Screening and the NAAQS

- ▶ Provide scaling factors of AERSCREEN output for comparisons against various NAAQS (single-source only)
  - ▶ Conservative estimate is to use the maximum 1-hour, 8-hour, and 24-hour estimates from AERSCREEN as a design value
  - ▶ Using ambient data, can a reasonable relationship be drawn between maximum concentrations and design value concentrations
  - ▶ Analyses would provide a reasonable relationship between maximum AERSCREEN output and NAAQS metrics

# AERMINUTE

- Current version 14237
  - Update of 11325 to account for file format issues in 1-minute data in more recent years (2013, 2014)
    - Shifting of data columns
  - Effort to minimize effects on hourly averages of older data created with version 11325
- New format issues in 1-minute data files found for some stations in AZ
  - Will provide an update to AERMINUTE by end of 2014
  - Testing on 87 stations for 9 years of data

# Missing 1-minute data for 2013

- ▶ Many stations missing 1-minute data for June through December 2013
  - ▶ Appear to be mainly second order stations
- ▶ Sequestration and/or October 2013 government shutdown?
- ▶ For stations missing those months of data, will have to rely on standard hourly observations in AERMET/AERMOD
- ▶ Appears to be only affecting 2013

# Questions?

