Model Change Bulletin

MCB#4 05/27/2014

AERSCREEN (dated 14147)

This Model Change Bulletin (MCB) documents changes made to the AERSCREEN screening model. A brief description of the changes is provided below. Additional details are available in the FORTRAN source code and in the AERSCREEN user's guide.

This revised version of AERSCREEN (dated 14147) includes the following modifications relative to the previous version (11126):

Modifications

1. Modified subroutines MAKETERRAIN and MAKEGRID to include a new variable, REFDIST for calculating receptors for the REFINE stage. Previously, the variable NUMPT was used in these subroutines to represent the number of receptor points for the PROBE and FLOWSECTOR stages and distance for the REFINE stage. REFDIST was created to avoid confusion with different meanings of NUMPT. REFDIST is also set to the probe distance if REFDIST exceeds the probe distance.
2. Modifed subroutine MAKEINPUT to eliminate a blank line as the first line of the AERMOD input file. This makes AERSCREEN compatible with AERMOD version 14134 and later due to the skipping of blank lines in AERMOD (see miscellaneous change #3 of AERMOD MCB #10).
3. Modified subroutine FINDMAX to read the AERMOD version number from AERSCREEN.FIL so that it is independent of the AERMOD version. Previous versions of AERSCREEN read the version number using a fixed format that changed with AERMOD 12345. AERSCREEN no longer uses a fixed format to read the version number and is flexible for later AERMOD versions.

Bug Fixes

1. Modified subroutine READINP to set the discrete receptor use flag DISCFLAG to N instead of setting the logical variable DISCDAT to N. Previous versions of AERSCREEN were setting the wrong variable (DISCDAT).