

Model Change Bulletin (MCB) 19

AERMOD version 26135 (May 15, 2026)

Changes are listed by type and with each change are the affected pollutants and source types:

Bug Fixes

Item	Modification	Pollutants	Source Types
1	Correction when using restart capability with MAXIFILE. MAXIFILE would sometimes include duplicate records with different concentrations.	ALL	ALL
2	Correction in Tier 3 OLM option that produced a fatal error when using sector-varying background ozone concentrations (O3SECTOR keyword).	NO2	ALL
3	Correction to limitation on number of debug options that can be specified with the DEBUGOPT keyword.	ALL	ALL
4	Correction when program error encountered in some situations when the year specified on the SURFDATA keyword did not match the year of the first data record in the surface meteorological data file.	ALL	ALL
5	Correction in standard output file. Options summary did not print both ALPHA and BETA as options specified when both were used in the same AERMOD run.	ALL	ALL
6	Correction to erroneous error indicating there was a record out of sequence in one of the meteorological input data files.	ALL	ALL
7	Correction to print format statement in urban debug procedure.	ALL	ALL
8	Correction in GRSM Tier 3 NO2 conversion option when generating a MAXDCONT file to determine source contributions for 1-hour NO2 MAXDCONT. Individual source group contributions did not sum up to the ALL source group total.	NO2	ALL

9	Correction in subroutines O3VAL and NOXVAL in coset.f to correctly read the OZONEVAL and NOXVALUE concentrations when no units are specified for sector varying concentrations	NO2	ALL
10	Correction if STARTEND is March 1 through February 28, AERMOD does not see that as a full year for MAXDCONT, MULTYEAR, and ANNUAL averages. Code would issue an erroneous error and stop processing.	ALL	ALL
11	Update code to generate an error message when negative emission rate is specified. Negative emission rates to credit sources cannot be used with ARM2 due to non-linear dependence of concentrations on emissions.	NO2	ALL
12	GRSM - Logic added to maintain original formulation behavior in cases where NOX and/or NO2 inputs are missing or non-missing.	NO2	ALL
13	Correction in POINT_CONC to reset variable UEFF to a non-zero number.	ALL	RLINE, RLINEXT
14	Correction in POINT_CONC to use the absolute value of XD as an argument to REFL_HT	ALL	RLINE, RLINEXT
15	Correction using MULTYR in which first hour of each year processed after the first year was missing from the POSTFILE results.	ALL	ALL
16	Aircraft plume rise - Math expressions in arise.f were updated to be consistent with the formulation, and NENG was removed from the formulation calculations. calc1.f/ADISY fix for 'SY = DSQRT(SYB*SYB + SYAMB*SYAMB + VSIGY*VSIGY)'. Calc1.f/f2int function updated to call VDIS or ADIS for aircraft sources.	ALL	Aircraft
17	Add code to initialize file arrays and loop to close all open files at end of processing.	ALL	ALL

18	GRSM - In cases where very low NOX impacts occur, GRSM post-chemistry results could result in negative NO concentrations which results in NO2Frac conversion factors > 1.0. Following chemistry calculations, set NO2Frac to the lesser of 1 and NO2/(NO2+NO).	NO2	ALL
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Enhancements

Item	Modification	Pollutants	Source Types
1	Reconfigured code for opening debug files with error checking on file unit and file name. Updated DEBUGOPT keyword. DEBUGOPT is now repeatable.	ALL	ALL
2	Added capability to use multiple hourly emission rate files.	ALL	ALL
3	Reconfigured source code and mechanism for assigning file units when not specified by the user.	ALL	ALL
4	Add ALPHA options for RLINEXT to model solid continuous barriers, solid barrier edge effects (account for influence zone at end of barrier), and vegetative barriers.	ALL	RLINEXT
5	Plume rise formulation update for aircraft sources. (Characterization as an aircraft source is an ALPHA option.)	ALL	Aircraft