

CMAQv5.2.1 and previous versions

Emissions Module

Read gas species from one offline
gridded file
(1 and only 1 file)

Apply user-directed scaling and hard-
coded transforms (e.g., SULF → ASO4;
OC + NCOM → SVPOA)

Convert units to ppmv/s

Read and map Biogenic vapors

Convert Biogenic vapor emissions to
ppmv/s

Read and map Marine Gas emissions

Convert Marine Gas emissions to ppmv/s

Read and map Nitric Oxide from
Lightning

Read multiple offline point gas
emissions; apply user-directed scaling
inside offline point module.

Convert point units to ppmv/s

Read offline point and offline gridded
aerosol emissions, wind-blown dust,
and sea spray. Apply fixed size
distribution. Apply user-directed
scaling.

Adjust fertilizer ammonia emissions if
bidirectional ammonia feature is
activated.

Vertical
Dispersion
Solver
(VDIFF)

