



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

April 30, 2024

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Updates to the Guidance for Ozone and Fine Particulate Matter Permit Modeling

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TO: Regional Office Modeling Contacts

On February 7, 2024, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient Air Quality Standards (NAAQS) for Particulate Matter (PM). The EPA set the level of the primary (health-based) annual PM_{2.5} standard at 9.0 micrograms per cubic meter to provide increased public health protection, consistent with the available health science. The EPA did not change the primary and secondary (welfare-based) 24-hour PM_{2.5} standards, secondary annual PM_{2.5} standard, or primary and secondary PM₁₀ standards.¹

The EPA also developed new significant impact levels (SILs) for the primary annual PM_{2.5} NAAQS and Prevention of Significant Deterioration (PSD) increments that the Agency recommends using in the PSD permitting program. On April 30, 2024, the EPA released the “Supplement to the Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program” (Supplemental SILs Guidance) that included these new SILs values along with the technical basis to support their update.²

As a result of the updates to the SILs for the annual PM_{2.5} NAAQS and PSD increments, minor updates to the July 29, 2022, “Guidance for Ozone and Fine Particulate Matter Permit Modeling” (Ozone and PM_{2.5} Permit Modeling Guidance) are necessary.³ Specifically, the SIL values in Table II-1 and Table II-2 on Page 16 of that guidance should be updated to reflect the new SIL values in the aforementioned April 30, 2024, Supplemental SILs Guidance. Otherwise, no other

¹ <https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm>

² <https://www.epa.gov/nsr/significant-impact-levels-ozone-and-fine-particles>

³ https://www.epa.gov/system/files/documents/2022-07/Guidance_for_O3_PM25_Permit_Modeling.pdf

updates are necessary to the existing recommendations and discussion presented throughout the Ozone and PM_{2.5} Permit Modeling Guidance.

In lieu of re-releasing the Ozone and PM_{2.5} Permit Modeling Guidance, the EPA is providing through this memorandum a replacement Table II-1 and Table II-2, that should be used instead of the previous versions of these tables found on Page 16 of that guidance. This memorandum will also be appended to the front of that guidance document for ongoing clarity and future reference.

Table II-1. EPA Recommended SIL Values for O₃ and PM_{2.5} NAAQS

Criteria Pollutant (NAAQS Level)	NAAQS SIL Concentration
Ozone 8-hour (70 ppb)	1.0 ppb
PM _{2.5} 24-hour (35 µg/m ³)	1.2 µg/m ³ *
PM _{2.5} Annual (9 µg/m ³ or 15 µg/m ³)**	0.13 µg/m ³ ***

* The table accounts for the significant level for the 24-hour PM_{2.5} NAAQS in 40 CFR 51.165(b)(2).

** Primary and secondary annual PM_{2.5} NAAQS, respectively.

*** The EPA recommends 0.13 µg/m³ as the SIL value. This value is lower than the value of 0.3 µg/m³ listed in 40 CFR 51.165(b)(2). Reference the SILs Guidance for more information.

Table II-2. EPA Recommended SIL Values for PM_{2.5} PSD Increments

Criteria Pollutant	PSD Increment SIL Concentration		
	Class I	Class II	Class III
PM _{2.5} 24-hour	0.27 µg/m ³	1.2 µg/m ³	1.2 µg/m ³
PM _{2.5} Annual	0.03 µg/m ³	0.13 µg/m ³	0.13 µg/m ³

If there are any questions regarding the updates to Table II-1 and Table II-2 in the Ozone and PM_{2.5} Permit Modeling Guidance or the new SILs for the annual PM_{2.5} NAAQS and PSD increments in the Supplemental SILs Guidance, please contact George Bridgers or Alyssa Piliero of EPA's Air Quality Modeling Group at bridgers.george@epa.gov or piliero.alyssa@epa.gov.

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