

D.C. Circuit Upholds EPA's 2024 Fine Particulate Matter Standard

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On June 26, 2026, the D.C. Circuit unanimously upheld the Biden administration's 2024 rule that tightened the primary annual national ambient air quality standard (NAAQS) for fine particulate matter (PM_{2.5}) from 12 to 9 µg/m³.¹ In doing so, the court rejected the Trump administration's request — made after briefing and argument in the case — to vacate the 2024 rule, thereby avoiding rescission through an administrative rulemaking process.

The decision is an example of a court refusing the government's request to effect regulatory change without going through a valid administrative procedure. This case fits a pattern from the Trump administration: asking courts to vacate policies enacted by the previous administration that the government no longer wishes to defend.² That approach is part of a [broader effort](#) to avoid the requirements of the full notice-and-comment rulemaking process.³

If EPA does not appeal the ruling, the court's decision is likely to increase the immediate pressure on EPA to make attainment designations required under the 2024 PM_{2.5} standard. Moreover, the court's holding that off-cycle NAAQS revisions do not require a "thorough review" under Clean Air Act section 109(d)(1) reaffirms EPA's authority to revise NAAQS more quickly when new science emerges.

This quick take explains the rulemakings and litigation surrounding the 2024 PM_{2.5} standard, then analyzes the legal challenges to the standard and how the D.C. Circuit's rejection of those challenges may affect future air quality rulemakings.

History of the PM_{2.5} Rulemaking and Subsequent Litigation

Under the Clean Air Act, EPA sets NAAQS for six common and harmful air pollutants, including particulate matter (PM).⁴ These NAAQS include primary standards to protect public health and secondary standards to protect public welfare.⁵

¹ *Kentucky v. EPA*, No. 24-1050, 2026 WL 1839715, at *1 (D.C. Cir. June 26, 2026).

² See Erika Kranz, HARVARD ENV'T & ENERGY L. PROGRAM, *A Department Untethered: The Erosion of DOJ Settlement Norms and Implications for Environmental Law* (June 2, 2026), available at <https://eelp.law.harvard.edu/a-department-untethered-the-erosion-of-doj-settlement-norms-and-implications-for-environmental-law/>.

³ See Erika Kranz & Sarah Hart-Curran, HARVARD ENV'T & ENERGY L. PROGRAM, *Evading Notice and Comment in the Second Trump Administration* (June 16, 2026), available at <https://eelp.law.harvard.edu/evading-notice-and-comment-in-the-second-trump-administration/>.

⁴ See EPA, *Criteria Air Pollutants* (last updated April 14, 2026), available at <https://perma.cc/C86R-24YU>. The six pollutants regulated by NAAQS are carbon monoxide, lead, particulate matter (PM), ozone, nitrogen dioxide, and sulfur dioxide. *Id.*

⁵ 42 U.S.C. § 7409(b)(1)-(2).

Exposure to PM is linked to several health problems, including heart attacks, aggravated asthma, and irregular heartbeat.⁶ The PM NAAQS include primary annual and 24-hour standards for PM_{2.5}, a primary 24-hour standard for PM₁₀, and secondary standards for both PM_{2.5} and PM₁₀.⁷

Clean Air Act section 109(d)(1) requires EPA, at five-year intervals, to “complete a *thorough review*” of both the existing air quality criteria and NAAQS and revise them “as may be appropriate” to satisfy the Act’s substantive standards.⁸ The air quality criteria are “the scientific basis upon which [each] corresponding [NAAQS] relies.”⁹ The “thorough review” requirement ensures EPA “comprehensively evaluate[s] each and every existing criterion and [NAAQS] on a regular basis . . . to ensure NAAQS do not fall too far behind the evolving scientific evidence.”¹⁰

Section 109(d)(1) also authorizes EPA to revise its air quality criteria and NAAQS “earlier or more frequently” than the required five-year cycle.¹¹ These off-cycle revisions allow EPA to update its air quality criteria and NAAQS more quickly in response to changes in the relevant science.

The First Trump Administration: PM NAAQS Retained After Five-Year Review

In 2020, EPA under the first Trump administration completed a mandatory five-year review of the PM NAAQS, retaining all of the existing standards without revision, including the primary annual PM_{2.5} standard of 12 µg/m³.¹² Based, in part, on its 2019 integrated science assessment (ISA), EPA determined that the existing PM standards adequately protected public health and did not warrant tightening.¹³ Multiple groups promptly challenged EPA’s 2020 final rule, and those petitions were consolidated in the D.C. Circuit as *California v. EPA*.¹⁴

The Biden Administration: PM_{2.5} NAAQS Tightened After Off-Cycle Revision

Following President Biden’s inauguration in January 2021, the Biden administration asked and the D.C. Circuit agreed to hold *California v. EPA* in abeyance while EPA reconsidered the 2020 rule.¹⁵ In 2021, EPA identified new scientific studies that supported the need for a

⁶ EPA, *Health and Environmental Effects of Particulate Matter (PM)* (last updated May 5, 2026), available at <https://perma.cc/8WNX-L7RE>.

⁷ See 40 C.F.R. §§ 50.6-50.7. NAAQS set the federal ceiling for pollutant concentration over a given averaging time. States are then responsible for attaining the NAAQS. For example, the primary annual PM_{2.5} NAAQS of 9 µg/m³, requires states to achieve an annual mean concentration of 9 µg/m³, as averaged over three years, or risk being designated as a non-attainment area. See EPA, NAAQS Table (last updated Nov. 4, 2025), available at <https://perma.cc/DSY5-YY49>.

⁸ 42 U.S.C. § 7409(d)(1) (emphasis added).

⁹ *Kentucky*, 2026 WL 1839715, at *1 (citing § 7408(a)(2)).

¹⁰ *Id.* at *6.

¹¹ 42 U.S.C. § 7409(d)(1).

¹² Review of the National Ambient Air Quality Standards for Particulate Matter, 85 Fed. Reg. 82684 (Dec. 18, 2020).

¹³ *Id.* at 82685-86.

¹⁴ See *California v. EPA*, No. 21-1014 (D.C. Cir. Jan. 13, 2021).

¹⁵ See *California v. EPA*, No. 21-1014 (D.C. Cir. Jan. 13, 2021), Dkt. No. 10.

more stringent PM NAAQS standard, and EPA worked to update its scientific assessment of PM.¹⁶

In May 2022, EPA published a supplement to its 2019 ISA, incorporating new studies on the health effects of PM.¹⁷ The 2022 ISA supplement focused on “studies that became available after the literature cutoff date of the 2019 ISA that could either further inform the adequacy of the current PM NAAQS or address key scientific topics that ha[d] evolved since the literature cutoff date for the 2019 ISA.”¹⁸ In March 2024, relying on both the 2019 ISA and the 2022 ISA supplement, EPA issued a new rule revising the primary annual NAAQS for PM_{2.5} from 12 to 9 µg/m³ and leaving the other PM NAAQS unchanged.¹⁹

Soon after, industry groups and a coalition of states filed petitions in the D.C. Circuit challenging the tightened PM_{2.5} NAAQS. The court consolidated the challenges as *Kentucky v. EPA*.²⁰ Several other states, along with health, environmental, and community organizations, intervened in support of the 2024 rule.²¹ The court heard oral argument in December 2024.²²

The Second Trump Administration: Reversal in Pending Litigation

Following oral argument but before the D.C. Circuit issued its decision, EPA under the second Trump administration moved to hold *Kentucky v. EPA* in abeyance while the agency reviewed the 2024 rule.²³ In its motions to extend the abeyance, “EPA stated its intention to begin a new rulemaking to replace the 2024 Final Rule.”²⁴ However, in November 2025, EPA changed course. Instead of proposing to revise the PM_{2.5} NAAQS through notice-and-comment rulemaking as the Biden administration had done, EPA moved for the D.C. Circuit to vacate the 2024 rule.²⁵

Joining industry and state petitioners, EPA argued that Clean Air Act section 109(d)(1) requires EPA to complete a “thorough review” of the air quality criteria and NAAQS not only during the mandatory five-year revisions, but also during off-cycle revisions.²⁶ Because EPA now conceded that the 2022 supplement to the 2019 ISA did not constitute a “thorough review” of the PM air quality criteria and NAAQS, EPA argued the 2024 revision was

¹⁶ *Kentucky*, 2026 WL 1839715, at *3.

¹⁷ See EPA, *Supplement to the 2019 Integrated Science Assessment for Particulate Matter (Final Report)* (May 2022), available at <https://perma.cc/36NP-QKL7>.

¹⁸ Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16202, 16327 (March 6, 2024).

¹⁹ *Id.* at 16203-04. In the 2024 rule, EPA chose not to revise its primary 24-hour PM_{2.5} standard, the primary 24-hour PM₁₀ standard, the secondary 24-hour PM_{2.5} standard, the secondary annual PM_{2.5} standard, and the secondary 24-hour PM₁₀ standard. *Id.* at 16202.

²⁰ See *Kentucky*, 2026 WL 1839715, at *4.

²¹ *Id.*

²² *Id.*

²³ See *id.*

²⁴ *Id.*

²⁵ See *id.* at *4. EELP evaluates the government’s strategy of requesting vacatur instead of rescinding rules through notice-and-comment rulemaking in Kranz & Hart-Curran, *supra* note 3, at 14, 14 n.99.

²⁶ See Resp’t Mot. to Vacate at 16-21 (Nov. 24, 2025), *Kentucky v. EPA*, No. 24-1050, Dkt. No. 174.

unlawful.²⁷ EPA further argued that the 2024 rule failed to consider costs and attainability as required by the Clean Air Act.²⁸

On June 26, 2026, the D.C. Circuit lifted the abeyance in *Kentucky v. EPA*, reached the merits of the case, and upheld the 2024 rule's PM_{2.5} standard of 9 µg/m³.²⁹ The court concluded that the Clean Air Act allows EPA to revise a NAAQS or air quality criteria off-cycle without performing a “thorough review,” and held that EPA acted reasonably in lowering the primary annual PM_{2.5} NAAQS from 12 to 9 µg/m³.³⁰

Major Takeaways from *Kentucky v. EPA*

(1) *The Clean Air Act does not require a “thorough review” for optional off-cycle NAAQS revisions*

In upholding the 2024 rule, the D.C. Circuit rejected EPA's new reading of Clean Air Act section 109(d)(1). Parsing the text, structure, and history of Clean Air Act sections 109(b) and (d), the court held that section 109(d)(1)'s “thorough review” requirement applies only to the mandatory five-year revisions of the air quality criteria and NAAQS, not to off-cycle revisions.³¹ Accordingly, an off-cycle revision is lawful so long as it “satisf[ies] the substantive standard in [section 109(b)] and compl[ies] with the strictures of the [Clean Air Act], including its requirement of reasoned decisionmaking.”³² The court held the 2024 rule's off-cycle revision of the PM_{2.5} air quality criteria and primary annual NAAQS satisfied those requirements.

The court emphasized that “[r]equiring a full review” of all the air quality criteria and NAAQS “whenever [EPA] seeks to revise a single criterion or [NAAQS] off-cycle would prevent [EPA] from responding promptly to changes in the relevant science.”³³ Thus, “the only sensible reading of the statute” is that EPA has discretion “to address the criteria most relevant” to the off-cycle revision at hand and need not “expend limited resources to review other scientific studies” that “could delay but not improve” an off-cycle revision.³⁴

(2) *The 2024 rule was not arbitrary or capricious*

The court also rejected petitioners' and EPA's arguments that the 2024 rule was arbitrary and capricious.

²⁷ See *id.* at 17 (“Here, where EPA compiled only a limited supplement to the 2019 Assessment, and the agency conceded during the rulemaking that such a limited supplement did not comprise a full review of the criteria and standards, the agency did not comply with the statutory requirements of section [7409(d)(1)].”).

²⁸ See *Kentucky*, 2026 WL 1839715, at *4.

²⁹ *Id.*

³⁰ See *id.* at *4-14.

³¹ *Id.* at *5-9.

³² *Id.* at *9.

³³ *Id.* at *7.

³⁴ *Id.* at *8.

First, state petitioners contended that EPA relied on “impermissible considerations,” such as promoting environmental justice and countering climate change, to justify the 2024 rule.³⁵ The court rejected that argument, finding it unsupported by the administrative record.³⁶

Second, industry and state petitioners, joined by EPA, argued that the Clean Air Act required EPA to consider costs and attainability when deciding whether to revise the PM_{2.5} NAAQS.³⁷ The court rejected that argument. Citing the Supreme Court’s decision in *Whitman v. American Trucking Associations* and other D.C. Circuit precedent, the court held that the same cases that bar EPA from considering costs and attainability when *setting* a NAAQS apply with equal force when *revising* a NAAQS.³⁸

Third, petitioners advanced a mix of arguments that EPA’s 2024 rule was “inadequately explained and insufficiently supported by the evidence.”³⁹ The D.C. Circuit rejected each argument in turn, holding that EPA (1) justified its decision to perform an off-cycle revision of the PM_{2.5} NAAQS, (2) adequately explained its reasons for departing from the 2020 rule’s conclusions, and (3) provided sufficient scientific evidence to support a primary annual NAAQS of 9 µg/m³.⁴⁰

Looking Ahead

At the time of this publication, it is unclear how EPA will respond to the court’s decision. EPA could seek *en banc* review in the D.C. Circuit or petition for Supreme Court review. Alternatively, EPA could initiate a new rulemaking to rescind the 2024 rule.

In the meantime, EPA is likely to face increased pressure from states and environmental groups that have sued the agency in federal district court for failing to make attainment/non-attainment designations consistent with the tightened PM_{2.5} NAAQS.⁴¹ On April 24, 2026, EPA moved to hold two attainment designation cases in abeyance while the D.C. Circuit decided the legality of the tightened PM_{2.5} NAAQS.⁴² With *Kentucky v. EPA* resolved, the cases are more likely to proceed to summary judgment.

Once EPA makes attainment designations under its PM_{2.5} NAAQS, “state and local governments with nonattainment areas [will need to] develop implementation plans

³⁵ *Id.* at *9-10.

³⁶ *Id.*

³⁷ *Id.* at *10-12.

³⁸ See *id.* (citing *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 464 (2001); *Murray Energy Corp. v. EPA*, 936 F.3d 597, 621-622 (D.C. Cir. 2019); *Am. Petroleum Inst. v. Costle*, 665 F.2d 1176, 1185 (D.C. Cir. 1981)).

³⁹ *Id.* at *12.

⁴⁰ *Id.* at *12-14.

⁴¹ See *All. of Nurses for Healthy Env’ts v. Zeldin*, No. 26-03118 (N.D. Cal. April 13, 2026) (suit filed by several environmental, public health, and community groups against EPA for failing to designate areas that are in nonattainment with the 2024 PM_{2.5} NAAQS); *California v. Zeldin*, No. 26-03500 (N.D. Cal. April 24, 2026) (suit filed by a coalition of state and local governments against EPA for failing to designate areas that are in nonattainment with the 2024 PM_{2.5} NAAQS).

⁴² See Mot. for Abeyance, *All. of Nurses for Healthy Env’ts v. Zeldin*, No. 26-03118 (N.D. Cal. April 13, 2026), Dkt. No. 31.

outlining how areas will attain and maintain the standards by reducing air pollutant emissions.”⁴³

EELP will continue to follow regulatory and litigation developments related to the PM NAAQS on our [Regulatory Tracker page](#).

⁴³ EPA, *Process to Determine Whether Areas Meet the NAAQS (Designations Process)* (last updated Nov. 5, 2025), available at <https://perma.cc/4ZEN-4ZD4>.