# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

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## BACKGROUND DOCUMENT

## ON PROPOSED AMENDMENTS TO

# 310 CMR 7.00 Air Pollution Control

#### And

310 CMR 6.00 Ambient Air Quality Standards for the Commonwealth of Massachusetts

March 2025

**Regulatory Authority:** 

M.G.L. c. 21A, §§ 2 and 8 M.G.L. c. 111, §§ 2C and 142A through 142D

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#### I. SUMMARY

The Massachusetts Department of Environmental Protection (MassDEP) is proposing to amend 310 CMR 7.00 *Air Pollution Control* and 310 CMR 6.00 *Ambient Air Quality Standards for the Commonwealth* to adopt the revised primary annual fine particulate matter (PM<sub>2.5</sub>) National Ambient Air Quality Standard (NAAQS) of 9 micrograms per cubic meter (μg/m³) promulgated by the U.S. Environmental Protection Agency (EPA) on February 7, 2024, and to adopt the revised secondary annual sulfur dioxide (SO<sub>2</sub>) NAAQS of 10 parts per billion (ppb) promulgated by EPA on December 10, 2024. Primary standards are those that protect public health, while secondary standards protect public welfare (e.g., damage to plants).

#### II. BACKGROUND

On February 7, 2024, EPA lowered the level of the primary annual PM<sub>2.5</sub> NAAQS from 12.0 µg/m³ to 9.0 µg/m³, after a reconsideration of EPA's 2020 final decision on primary (health-based) and secondary (welfare-based) NAAQS for particulate matter. No other changes to the PM<sub>2.5</sub> NAAQS were made. The official rule was published in the Federal Register on March 6, 2024 (89 FR 16202) with a rule effective date of May 6, 2024. Information on EPA's final rule and rationale for the revised NAAQS is available at <a href="https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm">https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm</a>

On December 10, 2024, EPA revised the secondary SO<sub>2</sub> NAAQS from a three-hour standard of 0.5 parts per million (ppm) to an annual average, averaged over three consecutive years, of 10 parts per billion (ppb). No other changes to the SO<sub>2</sub> NAAQS were made. The official rule was published in the Federal Register on December 27, 2024 (89 FR 105692) with an effective date of January 27, 2025. Information on EPA's final rule and rationale for the revised NAAQS is available at <a href="https://www.epa.gov/so2-pollution/secondary-national-ambient-air-quality-standards-naaqs-nitrogen-dioxide-no2-and">https://www.epa.gov/so2-pollution/secondary-national-ambient-air-quality-standards-naaqs-nitrogen-dioxide-no2-and</a>

Sections 110(a)(l) and 110(a)(2) of the Clean Air Act (CAA) require each state to submit a State Implementation Plan (SIP) to EPA that provides for the implementation, maintenance, and enforcement of the NAAQS. Section 110(a)(1) requires that each state make a new SIP submission after promulgation of a new or revised NAAQS to ensure that the SIP meets the requirements of the new or revised NAAQS. The current SIP-approved version of MassDEP's regulations at 310 CMR 7.00 does not reflect the recently revised primary annual PM<sub>2.5</sub> and secondary annual SO<sub>2</sub> NAAQS because the definition of NAAQS in 310 CMR 7.00 references NAAQS as of November 17, 2016. In order to be consistent with EPA's new NAAQS, MassDEP must amend the definition of NAAQS to change the date to January 27, 2025 to reflect the new revised NAAQS. After MassDEP finalizes the proposed amendments MassDEP will submit the regulations to EPA for approval into the State Implementation Plan (SIP) as required by the federal Clean Air Act.

These amendments are needed to ensure that MassDEP has clear authority in its air permit program to require new and expanding facilities that emit PM<sub>2.5</sub> and SO<sub>2</sub> to comply with the more protective PM<sub>2.5</sub> and SO<sub>2</sub> NAAQS to ensure protection of public health and the environment. MassDEP recently adopted new Cumulative Impact Analysis regulations for air

quality permitting of new and existing facilities located in or near environmental justice populations. These proposed amendments will ensure that MassDEP can require facilities that conduct a Cumulative Impact Analysis to comply with the new more health-protective PM<sub>2.5</sub> NAAQS, which is important since PM<sub>2.5</sub> is a critical public health issue in environmental justice populations. Without the amendments, MassDEP would be unable to enforce the new PM<sub>2.5</sub> and SO<sub>2</sub> standard in new or modified permits. Based on MassDEP ambient air monitoring data, Massachusetts meets the new NAAQS, and these proposed amendments will help ensure Massachusetts remains in attainment.

In addition, MassDEP's regulations at 310 CMR 6.00 contain Massachusetts' Ambient Air Quality Standards (MAAQS) for the six criteria pollutants for which EPA has established NAAQS. MassDEP's MAAQS regulation is authorized by M.G.L. c. 111, Section 142D, which states, "...the department may adopt, and from time to time amend, after public hearings, ambient air quality standards…" Section 142D also directs MassDEP to periodically review the standards and amend them so as to minimize economic costs associated with meeting the standards, provided that any amended standards must be no less stringent than EPA's NAAQS. 310 CMR 6.00 currently lists 12.0  $\mu$ g/m³ as the Massachusetts primary annual PM<sub>2.5</sub> standard, which is less stringent than EPA's revised standard, and lists 0.5 ppm as the Massachusetts secondary three-hour SO<sub>2</sub> standard. Therefore, the proposed amendments change the primary annual PM<sub>2.5</sub> standard from 12.0  $\mu$ g/m³ to 9.0  $\mu$ g/m³ and the secondary SO<sub>2</sub> standard from 0.5 ppm averaged over 3 hours to an annual average, averaged over three consecutive years, with a level of 10 ppb to be consistent with EPA's revised NAAQS as required under M.G.L. c. 111, Section 142D.

#### III. DESCRIPTION OF PROPOSED AMENDMENTS

The proposed amendments:

- amend the definition of "National Ambitent Air Quality Standard" in 310 CMR 7.00 *Definitions* by replacing "November 17, 2016" with "January 27, 2025."
- amend 310 CMR 6.04(1)(b) by replacing the existing text with the new text from EPA's revised secondary SO<sub>2</sub> standard.
- amend 310 CMR 6.04(2)(b) by replacing the primary annual PM<sub>2.5</sub> standard "12.0  $\mu$ g/m³" with "9.0  $\mu$ g/m³."

#### IV. IMPACTS OF PROPOSED AMENDMENTS

### 1. Economic Impacts

The proposed amendments do not impose additional requirements directly on Massachusetts facilities and MassDEP expects that there will be negligible economic impacts due to these amendments. New or modified facilities that emit PM<sub>2.5</sub> or SO<sub>2</sub> that trigger MassDEP's comprehensive plan application thresholds will need to demonstrate compliance with the new primary annual PM<sub>2.5</sub> and secondary annual SO<sub>2</sub> NAAQS through air dispersion modeling. MassDEP expects that most sources will be able to meet the new standard with best available control technology. However, some facilities may need to install additional emission controls to meet the new lower standard, which would increase project costs.

#### 2. Impacts on Massachusetts Municipalities

Pursuant to Executive Order 145, state agencies must assess the fiscal impact of new regulations on the Commonwealth's municipalities. The proposed amendments do not impose additional requirements directly on municipalities. Some municipalities operate power plants and any new or modified municipal power plants that emit PM<sub>2.5</sub> or SO<sub>2</sub> that trigger MassDEP's comprehensive plan application thresholds will need to demonstrate compliance with the new primary annual PM<sub>2.5</sub> and secondary annual SO<sub>2</sub> NAAQS through air dispersion modeling. MassDEP notes that ownership and operation of a power plant, which municipalities may voluntarily undertake, is not a mandated municipal service. Therefore, costs associated with operation of a power plant are not mandated costs subject to the restrictions of Proposition 2 ½ (Town of Norfolk v. Department of Environmental Quality Engineering, 407 Mass 233 (1990)).

### 3. Massachusetts Environmental Policy Act (MEPA)

Pursuant to 301 CMR 11.03(12) (Massachusetts Environmental Policy Act Regulations), MassDEP is not required to file an Environmental Notification Form (ENF) regarding the proposed regulations because the regulations do not reduce standards for environmental protection, nor do they reduce opportunities for public involvement in review processes or public access to information generated or provided in accordance with the regulations.

#### V. PUBLIC HEARING AND COMMENT

As provided by state law, M.G.L. c. 30A, MassDEP publishes a notice at least 21 days prior to a public hearing on proposed amendments. However, federal law requires that, when regulation amendments will be submitted to EPA as part of the State Implementation Plan, MassDEP must publish a notice at least 30 days prior to a public hearing on proposed amendments. Therefore, MassDEP published a notice of public hearing 30 days before the public hearing on the proposed regulation amendments. The public hearing notice and proposed regulations are available on MassDEP's website at <a href="https://www.mass.gov/info-details/massdep-public-hearings-comment-opportunities">https://www.mass.gov/info-details/massdep-public-hearings-comment-opportunities</a>. For further information on the Air Quality Operating Program, please contact Joanne Morin at <a href="Joanne.O.Morin@mass.gov">Joanne.O.Morin@mass.gov</a>.