

State of Connecticut
Regulation of
Department of Energy and Environmental Protection
Concerning
Fine Particulate Matter and Sulfur Dioxide Air Quality Standards
and a Fine Particulate Matter Impact Level

Section 1. Subdivision (1) of subsection (i) of section 22a-174-3a of the Regulations of Connecticut State Agencies is amended to read as follows:

(1) An application for a permit subject to this subsection, if requested to be provided pursuant to subsection (c)(2) of this section, shall contain an analysis of the effect of the pollutants listed in Table 3a(i)-(1) below. For the purposes of this subsection, the allowable emissions of an air pollutant will be deemed to have a significant impact on air quality if such impact is greater than or equal to the amount listed for any individual air pollutant in Table 3a(i)-1 below.

Table 3a(i)-1 Ambient Impact

Air Pollutant		Ambient Impact (Micrograms per cubic meter)
PM _{2.5}		
	Annual average	[0.3] <u>0.13</u>
	24-hour average	1.2
PM ₁₀		
	Annual average	1
	24-hour average	5
Sulfur Dioxide		
	Annual average	1
	24-hour average	5
	3-hour average	25

Air Pollutant		Ambient Impact (Micrograms per cubic meter)
Carbon Monoxide		
	8-hour average	500
	1-hour average	2000
Nitrogen Dioxide		
	Annual average	1
Dioxin Annual average (as calculated according to Section 22a-174-1 of the Regulations of Connecticut State Agencies) (Polychlorodibenzodioxins (PCDDs)) (Polychlorodibenzfurans (PCDFs))		(Notwithstanding above units 0.1 picograms/m ³)
Lead (Pb)		0.3
	Three (3) month average	

Sec. 2. Subsection (d) of section 22a-174-24 of the Regulations of Connecticut State Agencies is amended to read as follows:

(d) Connecticut primary and secondary ambient air quality standards for sulfur oxides (sulfur dioxide).

(1) The level of the Connecticut primary 1-hour ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 75 parts per billion, as set out in 40 CFR 50.17.

(2) The level of the Connecticut secondary annual ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 10 parts per billion, as set out in 40 CFR 50.21.

(3) The level of the Connecticut primary 24-hour ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 0.14 parts per million, as set out in 40 CFR 50.4.

[(3)] (4) The level of the Connecticut primary annual ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 0.030 parts per million, as set out in 40 CFR 50.4.

[(4)] (5) The level of the Connecticut secondary 3-hour ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 0.5 parts per million, as set out in 40 CFR 50.5.

Sec. 3. Subsection (f) of section 22a-174-24 of the Regulations of Connecticut State Agencies is amended to read as follows:

(f) **Connecticut primary and secondary ambient air quality standards for PM_{2.5}** (fine particulate matter).

(1) The level of the Connecticut primary annual ambient air quality standard for fine particulate matter, measured as PM_{2.5}, is 9.0 micrograms per cubic meter, as set out in 40 CFR 50.20.

(2) The level of the Connecticut primary annual ambient air quality standard for fine particulate matter, measured as PM_{2.5}, is 12.0 micrograms per cubic meter, as set out in 40 CFR 50.18.

[(2)] (3) The level of the Connecticut secondary annual ambient air quality standard for fine particulate matter, measured as PM_{2.5}, is 15.0 micrograms per cubic meter, as set out in 40 CFR 50.13.

[(3)] (4) The level of the Connecticut primary and secondary 24-hour ambient air quality standards for fine particulate matter, measured as PM_{2.5}, is 35 micrograms per cubic meter, as set out in 40 CFR 50.18 and 40 CFR 50.13, respectively.

Statement of Purpose

Purpose of proposal:

The purpose of this proposal is to align Connecticut's ambient impact levels and ambient air quality standards with recently promulgated federal guidance and standards.

Main provisions of the proposal:

The three changes in this proposal are to the following thresholds and standards:

- The annual average ambient impact level for fine particulate matter in the Regulations of Connecticut State Agencies (RCSA) §22a-174-3a;¹
- The primary annual ambient air quality standard for fine particulate matter in RCSA §22a-174-24;² and
- The secondary annual ambient air quality standard for sulfur dioxide in RCSA §22a-174-24 in accordance with guidance from the Environmental Protection Agency.³

Legal effect:

The legal effect of these amendments is minimal. This amendment does not create significant new legal obligations for the regulated community or add new regulated entities but rather aligns Connecticut's ambient impact level for fine particulate matter with federal guidance and ambient air quality standards for fine particulate matter and sulfur dioxide with existing federal standards. The reduction of the fine particulate matter annual average ambient impact level may impact early business decisions concerning new construction projects at regulated emissions sources because the modeling threshold for the emission of fine particulate matter from an approvable proposed new construction source is now lower. The changes to the air quality standards are unlikely to have any direct impact on individual emissions sources. The Department of Energy and Environmental Protection will implement the proposal with existing staff and other resources.

¹ Supplement to the Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program, April 30, 2024, <https://www.epa.gov/system/files/documents/2024-04/supplement-to-the-guidance-on-significant-impact-levels-for-ozone-and-fine-particles-in-the-psd-permitting-program-4-30-2024.pdf>.

² Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 FR 16202 (March 6, 2024).

³ Review of the Secondary National Ambient Air Quality Standards for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter, 89 FR 105692 (December 27, 2024).