



Particulate Matter (PM_{2.5}) National Ambient Air Quality Standard (NAAQS) Change

On February 7, 2024, the U.S. Environmental Protection Agency (EPA) announced a final rule that lowers the annual National Ambient Air Quality Standards (NAAQS) for fine particulate matter (PM_{2.5}) from 12 µg/m³ to 9 µg/m³. This significant change could present considerable compliance challenges for Idaho, especially Benewah, Lemhi, and Shoshone counties.

EPA received over 700,000 comments. Idaho provided comments.

EPA is not changing the following:

- Primary and secondary (welfare-based) 24-hour PM_{2.5} standards
- Secondary annual PM_{2.5} standard
- Primary and secondary PM₁₀ standards

EPA also revised the Air Quality Index (AQI) to improve public communications about the risks from PM_{2.5} exposures and made changes to the monitoring network to enhance protection of air quality in communities overburdened by air pollution.

The effective date was 60 days after the rule was published in the Federal Register, which was March 6, 2024. It became effective May 6, 2024. Idaho is one of 25 states challenging and seeking to block the rule in court. The outcomes of these legal challenges are pending.

Impacts to Idaho

The reduction in the PM_{2.5} standard necessitates a response from the state to meet these stricter requirements.

Permitting

For all industrial sources, the new standard complicates the permitting process significantly. Projects with pending major source construction permits must demonstrate, through modeling, that emissions will not contribute to a violation of the new standard. This requirement is particularly challenging given the high background levels of PM_{2.5} in the West, largely attributed to wildfire and other regional impacts. Idaho doesn't have any major source permit applications of this type currently in the permitting queue.

For minor source permitting, the standard will be in effect once it is incorporated by reference into the "Rules for the Control of Air Pollution" (IDAPA 58.01.01) in 2025. Minor sources will be required to demonstrate that emissions will not contribute to a violation of the new standard after July 1, 2025. This will mean more robust air quality dispersion modeling, which will result in additional workload for industry and DEQ.

DEQ is currently experiencing a long lead time for permitting projects, due primarily to staff turnover and vacancies. Therefore, to ensure compliance with the new standard, DEQ is requesting any permit to construct application for new or modified sources of PM_{2.5} submitted after July 1, 2024, contain a demonstration of compliance with the new PM_{2.5} annual standard of 9 µg/m³, even though that standard will not be in effect until July 1, 2025. This will ensure applicants do not need to resubmit applications.

Planning

EPA is required to designate areas as attainment (meeting the standard) or nonattainment (not meeting the standard) within two years of the final rule based on most recent data.

A nonattainment designation requires the state to develop and submit State Implementation Plans (SIPs) within 18 months in those areas, aimed at achieving compliance within six years.

Currently, all of Idaho is in compliance with the new standard, but some areas are on the threshold of nonattainment, as shown in Table A-2(b). Continuing to comply will hinge on “exceptional events” (e.g. wildfires, dust) being submitted and concurred with by EPA, so as not to impact attainment designations. The design values will change based on including/excluding exceptional event data.

Table A-2(b). 2021-2023 PM_{2.5} annual preliminary design values for NAAQS Federal Reference Method monitoring sites (µg/m³)^{a,b}

Site Name	AQS ID	MSA or County	Annual Weighted Mean Concentration			Annual Design Value	Required/ (Current) Sampling Frequency ^c
			2023	2022	2021		
Meridian–St. Luke’s	160010010	Boise City–Nampa	6.0 / 5.8 ^d	7.5 / 6.4	9.2 / 6.4	7.6 / 6.2	1:3 (1:3) ^e
St. Maries	160090010	Benewah	9.4 / 8.6	9.7 / 8.5	10.5 / 7.6	9.9 / 8.2	1:3 (1:1)
Nampa	160270002 160270010	Boise City–Nampa	7.0 / 6.6 ^f	10.5 / 8.5	9.3 / 7.4 ^d	8.9 / 7.5 ^f	1:3 (1:1)
Preston	160410002	Logan UT-ID	6.3 / 6.2	6.0 / 5.7	7.4 / 5.7	6.6 / 5.9	1:3 (1:3)
Salmon–Charles St.	160590004	Lemhi	7.5 / 6.8	12.9 / 7.8	10.3 / 7.1	10.2 / 7.2	1:3 (1:1)
Pinehurst	160790017	Shoshone	9.9 / 9.0	10.0 / 8.8	11.1 / 8.2	10.3 / 8.7	1:3 (1:1)

a. The annual PM_{2.5} NAAQS is violated if the three-year average of the annual arithmetic mean exceeds 9.0 µg/m³.

b. Concentration data are denoted with/without all “flagged” exceptional event data included. The concentration values may change depending on how many of the “flagged” exceptional events are documentable, as concurred by EPA. Concurred events are removed from design value calculations.

DEQ will determine area designations for attainment/nonattainment based on the 2021–2023 design value data, with the expectation that attainment with the new standard will continue once exceptional events are removed. DEQ will have 12 months to make area designation recommendations to EPA. Thereafter, EPA will have 12 months to make recommendations for comment. EPA will use the most recent 2022–2024 design value dataset.

Smoke management

The AQI breakpoints were also updated, resulting in more yellow/moderate AQI days when previously they would have been green/good. DEQ does not anticipate a significant change for burn decisions for prescribed fire or the crop residue burning program.