

EPA's New Ozone Standards: A Few Thoughts

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The Environmental Protection Agency (EPA) is under a court order to finalize its review of the National Ambient Air Quality Standards (NAAQS) for ozone by October 1, 2015. After several years of analysis, compiling information from more than 1,000 studies on health effects, exposure, and environmental impacts, EPA proposed more stringent standards last November. This began a public comment period, leading toward the final decision.

The proposal brought forth a familiar set of arguments. On one side, public health advocates stated that the proposal, which would lower both the primary and secondary standard from 75 parts per billion (ppb) to somewhere in the range of 65 to 70 ppb, [wasn't strong enough](#). On the other side, potentially affected industries argued that meeting standards in the range EPA proposed would [devastate the economy](#).

The Clean Air Act, as enacted in 1970, requires a public health focus in the setting of NAAQS. In authorizing EPA's action, it states that the EPA Administrator should set a primary standard at a level "requisite to protect the public health" with an adequate margin of safety. There is no mention of cost or technological considerations in the authorizing language. As a result, the Supreme Court held in a unanimous [2001 decision](#) that cost and technological feasibility are not to be considered by EPA when setting primary NAAQS standards. The agency and the states may consider cost, however, in determining how they will meet the standards.

Setting the NAAQS is only the beginning of a long implementation process. States first identify what areas are in "nonattainment" of the NAAQS, using monitoring data for the most recent three years. EPA reviews the state submissions; negotiates with the states over data quality, the boundaries of the areas, and other factors; and eventually comes up with an official list of areas to be designated nonattainment.

This designation process can take two years if all goes smoothly. Generally, all does not go smoothly. Following the last revision (in 2008), it took four years before areas were designated. After the previous (1997) revision, the process took seven years. Following designation, affected states and localities work with EPA to develop a state implementation plan for EPA approval.

Many parts of the country have no ozone monitors: of the roughly 3,000 counties in the United States, only 26% have monitoring equipment. EPA generally terms counties without monitors "unclassifiable" and focuses on the areas that do have monitors.

What areas will be in nonattainment under a new NAAQS? That won't be known, even when the final standards are promulgated. Whether an area is in attainment of the standards is determined by averaging monitoring data for the most recent three years *at the time of designation*. When the ozone rule was proposed in 2014, the most recent three years of data were for the years 2011-2013. If these data were used to designate nonattainment areas, 358 counties would have exceeded a 70 ppb standard, and 558 would exceed a 65 ppb NAAQS. But these aren't the data that will be used to make formal designations after the final standards are set. Most likely, designations will rely on 2014-2016 or later data.

In the past, the actual number of counties designated nonattainment has been less than EPA's initial projections. For example, during the 2008 revision of the NAAQS, 398 counties exceeded what became the primary and secondary standards at the time of proposal (2007). When the standards were finalized in 2008, 345 counties exceeded them. By the time of actual nonattainment area designation (2012), the number had dropped to 232.

A look at the [map](#) that EPA released when it proposed the 65-70 ppb standards shows a number of counties exceeding the proposed standards in areas that have not previously been in nonattainment. Using 2011-2013 data to make the determinations, and assuming a primary standard of 65 ppb, Oklahoma would have 16 counties in nonattainment; New Mexico, 8; Kansas, 9; Utah, 11. Each of these states currently has none. Texas would have 17 counties in nonattainment, on top of the 14 exceeding the 2008 standard; Pennsylvania, 26 new counties on top of 7 currently showing exceedance.

Although ozone concentrations are difficult to predict, and many sources contribute to ozone formation, what many of these new places have in common is the oil and gas industry. As U.S. production of oil and gas has grown, so have emissions. [EPA data](#) indicate that emissions of the pollutants that form ozone from oil and gas production have quintupled in the last decade. Every other category of sources identified by EPA (including industrial sectors, electric power production, and mobile sources) has reduced ozone-forming emissions in that period. The agency has recently promulgated new emission standards that should lower oil and gas industry emissions, and further standards are under development. These may be key to attaining a more stringent ozone NAAQS in some areas.

Whatever the number of areas ultimately affected by the new standards, [EPA has concluded](#) that most of them will be able to attain the standards without imposing emission controls beyond those already on the books. According to EPA, national emission standards already mandated (the [Tier 3 emission](#) and fuel standards for cars and light trucks, which take effect in 2017, and already-promulgated standards for power plants and other sources), as well as state-level standards already promulgated, will reduce emissions sufficiently that only 9 of the 358 counties exceeding a proposed 70 ppb standard in 2011-2013 would be in nonattainment by 2025. If a more stringent 65 ppb standard is promulgated, only 68 of 558 counties exceeding that standard would need additional controls to reach attainment.

With the final standards' release will come new data and analysis. But the underlying issues, as Congress and the courts review the standards, are likely to remain as they've been for the past two decades: whether the improvement of public health envisioned merits the imposition of additional costs, and whether the statute should permit cost consideration at this stage of the regulatory process.