

Proposed Tougher Ozone Standard Worries Intermountain West Drillers

By SCOTT STREATER of Greenwire
Published: January 14, 2010

More than a dozen Western counties with high levels of oil and gas drilling could face tougher requirements for ozone pollution under new proposed federal standards rolled out last week, adding another dose of regulatory uncertainty to an industry already facing tougher scrutiny over its air emissions.

The revised health standard, if finalized later this year, could cause petroleum-rich sections of Colorado, Wyoming, New Mexico and Utah to become so-called "nonattainment areas" for ozone, forcing state governments to revise or adopt new federally approved plans to reduce ozone precursor pollutants in the affected counties.

The two main ozone-forming gases -- nitrogen oxides (NOx) and volatile organic compounds (VOCs) -- are produced from the burning of fossil fuels, but they are also released in abundance by oil and gas drill rigs - - primarily from pump compressors, leaky valves and condensate tanks.

And while industry has taken aggressive steps in recent years to reduce ozone-forming emissions -- including installing pollution controls on compressors and wellheads -- regulators say such efforts may not be enough.

"Depending on what level the EPA sets, that's going to set the bar for us and we'll have to adopt whatever measures are needed to bring us into attainment," including possible new restrictions on oil and gas drillers, said Paul Tourangeau, director of the Colorado Department of Public Health & Environment's air pollution control division.

Implications for Colo., N.M., Utah

According to its proposal released last week, EPA wants to revise its "primary" ozone health standard from 75 parts per billion (ppb) averaged over an eight-hour period to between 60 and 70 ppb. The agency is also proposing a "secondary" ozone standard aimed at protecting vegetation and sensitive ecosystems, including parks, wildlife refuges and wilderness areas ([Greenwire](#), Jan. 7).

While the effects of a tougher health standard would be most immediately felt in smog-choked urban areas, where motor vehicles contribute billions of tons of ozone-forming pollutants annually, the odorless gas is a growing problem in many more rural states, especially where oil and gas producers have sunk thousands of wells into the ground, resulting in releases of ozone-forming pollutants.

The stakes could be especially high in Colorado, one of the West's fastest-growing states in terms of population, but also one of the Interior West's new centers for oil and gas development.

In the past two years alone, Colorado has issued more than 13,000 drilling permits, according to new [figures](#) from the Colorado Oil and Gas Conservation Commission. New wells in the state numbered roughly 1,500 last year, 40 percent more than neighboring Wyoming, where drilling activity has traditionally outpaced Colorado.

Nine Colorado counties in the northern Front Range -- mainly in the Denver metropolitan area -- are already violating federal ozone standards, said Tourangeau. If tougher restrictions are imposed, five additional counties could fall into nonattainment status, due largely to oil and gas drilling.

They include La Plata and Montezuma counties in the San Juan Basin on the state's southwest side, where nearly 340 active drilling permits were issued last year, and Gunnison, Mesa and Rio Blanco counties in the Piceance basin in the western part of the state, where drillers held nearly 800 permits in 2009.

In New Mexico, which currently meets federal health standards for ozone statewide, two counties -- Rio Arriba and San Juan in the state's Four Corners region -- could fall into nonattainment largely because of power plant emissions, as could several others on the state's southeast side, "where there's a lot of oil and gas development," said Mary Uhl, air quality bureau chief for the New Mexico Environment Department.

While New Mexico has been more cautious than some other Intermountain states about new drilling, it remains in the top five natural gas producing states, with most of the gas coming from the San Juan Basin in northwestern New Mexico and the Permian Basin in the south.

In 2008, Gov. Bill Richardson (D) joined Santa Fe County in imposing a moratorium on oil and gas drilling in the Galisteo Basin south of Santa Fe after environmental groups complained that a proposal to drill new exploratory wells there would harm the area's environment and important archaeological and cultural resources.

Included in Richardson's executive order was that the New Mexico Environment Department consider adopting new air quality regulations to further protect ambient air quality from drilling activity in the basin.

The developer, Tecton Energy of Houston, later abandoned the proposal.

In Utah, state regulators are not sure what impact a new health standard would have on drilling activity in San Juan County in the state's southwest corner, in part because the state placed an ozone monitor there for the first time last summer and air-quality determinations usually require at least three years of data.

However, an ozone monitor operated by the National Park Service at Canyonlands National Park in northeast Utah, where oil and gas drilling is also heavy, recorded a three-year ozone average of 71 ppb between 2007 and 2009, high enough to violate the proposed standard, said Bryce Bird, planning branch manager for the Utah Department of Environmental Quality's division of air quality.

"The population is very limited in that area, and the major industry is oil and gas development," Bird said.

But, he added, much depends on how much tougher the standard becomes. If the EPA sets the compliance threshold at 60 ppb, all 13 ozone monitors in the state would be in violation. "It looks like it's a regional phenomenon that we can't attribute to one source or one activity," he said.

Wyo.'s deteriorating air quality

In Wyoming, oil and gas production in the Jonah Infill and Pinedale Anticline gas fields has contributed to deteriorating air quality over the past decade and may lead to Wyoming's first violations of EPA air quality standards, according to state officials. Federal maps also indicate that counties in the natural gas-rich Powder River Basin in northeast Wyoming could also fall out of compliance if EPA toughens its health standard.

Last March, Wyoming Gov. Dave Freudenthal (D) asked EPA to designate Sublette County and portions of two other neighboring counties in the state's southwest corner as violating current ozone health standards ([Land Letter](#), March 19, 2009). Wells in those two fields produced 7.6 million barrels of oil and 1.1 billion cubic feet of natural gas in 2008, according to the latest state statistics.

Between 2000 and 2008, the number of annual new oil, gas and coalbed methane drilling wells in the region increased almost threefold, from 350 a year in 2000 to 925 a year in 2008, according to state statistics. More than 2,600 new wells were drilled in Sublette County alone during that time.

An ozone monitor in southwest Wyoming began recording high ozone levels in 2005, and as recently as early 2008, ozone concentrations spiked as high as 122 ppb -- approaching twice the current ozone health standard. A technical analysis of air quality in the region conducted last year by the Wyoming Division of Air Quality found that 94 percent of VOCs and 60 percent of NOx emissions "are attributable to oil and gas production and development."

Mike Eisenfeld, New Mexico energy coordinator for the San Juan Citizens Alliance, which has been pushing EPA to toughen air quality standards for oil and natural gas drilling, said Sublette County "once had very pristine air quality, and in 10 years, it's gone down to ozone readings that are off the charts."

Wyoming regulators, while poised to require deep cuts in emissions, particularly in the Sublette County area, have not decided what measures to take, said Keith Guille, a spokesman with the Department of Environmental Quality. Drillers in Sublette and surrounding counties are currently required to employ best available control technology (BACT) on their equipment, which has greatly reduced emissions, Guille said.

Progress discounted?

Industry officials also touted the improvements in emissions controls over the past decade and expressed concern that a tougher ozone health standard could lead to excessive regulation of oil and gas drillers.

"We're very concerned about the new [proposed] standards because industry is often blamed for ozone levels even though emissions from vehicles are a much bigger source of the problem," said Kathleen Sgamma, director of government affairs for the Independent Petroleum Association of Mountain States, a Denver-based industry trade group.

John Robitaille, vice president of the Petroleum Association of Wyoming in Casper, said reduced emissions in Sublette County shows "rather clearly how industry has worked diligently to reduce any [ozone] precursors as well as try to really find what is really causing the problem."

"We feel that we've done an excellent job in doing so, and we will continue to work with the state to try and find ways to allow production but also eliminate [pollution] threats like that," he added.

While a new ozone health standard would almost certainly affect oil and gas operations, EPA has already met environmentalists' demands to review and possibly update regulations governing a broad range of emissions emitted by rigs nationwide.

Under a recent [settlement](#) (pdf) agreement with environmental groups, EPA agreed to review three sets of drilling rules by January 2011, and if changes are needed, the agency would implement reforms by Nov. 30, 2011 ([Land Letter](#), Dec. 10).

Jeremy Nichols, climate and energy program director for WildEarth Guardians, one of the parties to the settlement, said EPA's regulatory review, combined with a tougher ozone standard, could clean up what he termed "an incredibly messy industry" and reap large benefits for public health.

"In a way, it's daunting and disappointing," he said of the region's declining air quality. "But if we have any hope of cleaning up, this is it. This is a game-changer for the West."

Streater writes from Colorado Springs, Colo.