

Getting better

DNR working on plan to reduce sulfur dioxide in Jefferson County

By Kevin Carbery
For the Leader

Levels of sulfur dioxide – a gas that causes serious health risks – have fallen dramatically in the air above a large portion of southeastern Jefferson County since the Doe Run Co. shut down lead smelting at its Herculaneum plant, numbers from the state Department of Natural Resources show.

Despite that good news, the 155-square-mile portion – which takes in the towns of Herculaneum, Festus, Crystal City and Pevely, and surrounding unincorporated areas – remains one of two sites in Missouri targeted for “nonattainment” of the federal Environmental Protection Agency’s sulfur dioxide limit.

As a result, the EPA is requiring the state Department of Natural Resources to revise its plan to address sulfur dioxide air pollution in the county. Stricter controls on three area Ameren Missouri energy plants, including the Rush Island Energy Center south of Festus, will be part of the new plan.

However, environmental advocates say the DNR’s draft plan doesn’t go far enough and should require more action from Ameren.

Jefferson County’s nonattainment area emanates from a sulfur dioxide monitor on Mott Street in Herculaneum, extending approximately 8 miles to the north, 6.75 miles to the west, 9.5 miles to the south and the Mississippi River to the east.

In addition to the four towns, the area takes in unincorporated parts of Barnhart, Imperial, rural Hillsboro and rural Festus (see map).

Sulfur dioxide has been linked to respiratory problems, particularly in at-risk groups such as children, senior citizens and asthmatics, studies show.

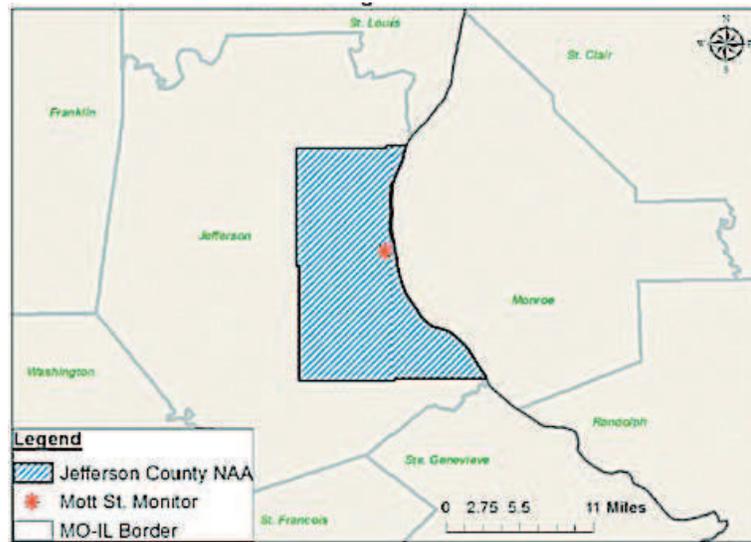
The gas can react with other compounds in the atmosphere to form particles that can penetrate deeply into the lungs, causing or worsening respiratory diseases such as emphysema and bronchitis, aggravating existing heart disease and leading to increased hospital admissions and premature death, according to the DNR.

How much better?

The Doe Run plant in Herculaneum shut down its smelting operation in December 2013, under an agreement with the EPA, although the plant continues to operate in a limited way using recycled lead or lead shipped in from other smelters.

Since the smelter shutdown, monitoring shows that sulfur dioxide levels in Herculaneum have plummeted – falling from 268 parts per billion in calendar year 2012, to 143 ppb in 2013, to 23 ppb in 2014, the DNR reports.

The EPA’s current limit for sulfur dioxide, put into effect in June 2010, is 75



The Department of Natural Resources map showing the Jefferson County nonattainment area for sulfur dioxide.

ppb, revised from a 1971 limit of 140 ppb, measured under specified conditions.

The portion of Jefferson County was designated as a nonattainment area in late summer 2013, based on air quality data from 2007-2009. That three-year data placed Herculaneum’s sulfur dioxide level as the highest in the continental United States for that period – 350 ppb (The DNR notes that in 2004, the level reached as high as 400 ppb.)

Despite the improvement, the EPA is requiring the DNR to revise its “Nonattainment Area Plan for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard” to meet the new federal standards.

The DNR held a hearing April 30 in Jefferson City to solicit public comments on its draft plan, and accepted more comments through May 7.

DNR spokeswoman Gina Terlizzi said in May that 10 of the 27 people who signed an attendance sheet at the hearing spoke.

Agency personnel were reviewing those comments, as well as any others they received from the public, to see if changes needed to be made before the plan could be submitted to the EPA for its approval, Terlizzi said.

She said she could not estimate when the plan might be approved and implemented.

But she said her department still had a long way to go in its approval process.

“This is a draft plan,” she said. “This has been labeled as a nonattainment area for a long time. The question is, how we remedy that.”

In June, Terlizzi took another job with state government, and Steph De-

idrick took over as DNR spokeswoman.

In an email in early June, Deidrick noted that air quality must be measured over an extended time period to assess whether standards are being met.

Still, she said that Jefferson County appears on track to meet the EPA’s standard by the end of 2015. If the attainment level is reached, the area could be reclassified as being in attainment, she said, or EPA could approve DNR’s plan.

Stipulations

In addition to a cessation of smelting at Doe Run, the DNR draft plan notes that Ameren Missouri agreed in 2015 to lower sulfur dioxide emissions at the Rush Island, Labadie and Meramec energy centers. Ameren also agreed to install air quality monitors at Rush Island, the DNR reports.

Ameren Missouri’s Rush Island energy center is in southeastern Jefferson County, its Meramec plant is in St. Louis County and its Labadie plant is in Franklin County.

In the draft, DNR noted that other sources of sulfur dioxide emissions in the nonattainment area include Buzzi Unicem, south of Festus, and Ardagh Glass Inc. in Pevely, although those sites are not targeted for action.

The draft notes that the EPA is requiring Jefferson County to reach attainment as soon as possible, but at least by 2018.

Deidrick said even if Jefferson County’s air quality improves enough to reach attainment, the proposed compliance requirements would remain in place.

“Ameren will need to comply with the emission limits listed in the plan,” she said.

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