

US EPA ARCHIVE DOCUMENT



THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

DEC 14 2012

Ms. Myra C. Reece
Chief
Bureau of Air Quality
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Dear Ms. Reece:

I am pleased to respond to your July 20, 2012, letter in which you filed a petition for reconsideration on behalf of the South Carolina Department of Health and Environmental Control concerning the U.S. Environmental Protection Agency's final rule, "Air Quality Designations for the 2008 Ozone National Ambient Air Quality Standards." *See 77 Federal Register 30008 (May 21, 2012)*. The petition requests that the EPA reconsider the nonattainment designation of the Rock Hill-Fort Mill Area Transportation Study Metropolitan Planning Organization, the municipal planning organization for the eastern side of York County, S.C., as part of the Charlotte, N.C.-Rock Hill, S.C., ozone nonattainment area.

The EPA has carefully evaluated the issues and information in your petition. For the reasons explained in the EPA's final designation action and information provided in the enclosure, the EPA is denying your petition. The EPA continues to believe the above-mentioned eastern portion of York County is properly designated nonattainment because of its contribution to ozone nonattainment in the Charlotte, N.C.-Rock Hill, S.C., area.

The enclosure addresses the issues raised in your petition. Along with the information provided in the EPA's final designation action, this enclosure provides the basis for the EPA's denial of your petition for reconsideration. The EPA considers the designation of nonattainment areas with appropriate boundaries to be an important step in implementing the 2008 ozone standards.

We appreciate the action you have taken in South Carolina to reduce ozone levels and provide cleaner, healthier air for millions of people. We look forward to working with you to ensure achievement of the 2008 ozone standards in the Charlotte, N.C.-Rock Hill, S.C., area.

In the meantime, I thank you for your interest in protecting the quality of our environment.

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa P. Jackson".

Lisa P. Jackson

Enclosure

Enclosure

The EPA Response to Petition for Reconsideration from Myra C. Reece, Chief Bureau of Air Quality South Carolina Department of Health and Environmental Control

By a letter dated July 20, 2012, the South Carolina Department of Health and Environmental Control (SC DHEC) petitioned the EPA to reconsider the final area designation for a portion of York County, South Carolina in the Charlotte – Rock Hill, NC-SC ozone nonattainment area. For the reasons discussed below, the EPA is denying the Petition. For the sake of clarity, we have organized this response according to the structure of the July 20, 2012, petition.

I. Concern Regarding Timing of Decision

Issue: The Petitioner claims that it appears that the designation determination was “rushed and made without adequate time to fully consider SC DHEC’s submissions.” As evidence, the Petitioner quotes the EPA’s Response to Comments in which the Agency stated that “[i]n those cases where timing constraints and the lack of additional information prevented a more detailed assessment, the EPA believes that the default wind rose analyses, in conjunction with the remainder of the multi-factor analysis, can provide an adequate assessment of appropriate boundaries” and claims that the EPA published its final designation nearly a month before the deadline to issue to the 2008 national ambient air quality standards (NAAQS). Petition at 1-2.

Also, the Petitioner states that “during a February 9, 2012, consultation meeting, the EPA referred to and referenced a back trajectory analysis that the EPA had performed. Despite a request by DHEC during the February 9, 2012, meeting, this referenced back trajectory analysis was never shared with DHEC...[t]his, taken in conjunction with EPA’s response to DHEC’s kreiging [sic] analysis, wherein EPA objects based on the fact that DHEC did not provide any ‘uncertainty analysis’ for its methodology, further supports this request for reconsideration.” The Petitioner states that “EPA has not disclosed any current data or evidence to DHEC that questions the South Carolina methodology.” The Petitioner claims that this suggests that either such data or evidence does not exist, or that the EPA did consider such other information but improperly failed to disclose it. Petition at 2.

Response: The EPA’s designation determination was not “rushed and made without adequate time to fully consider DHEC’s submissions.” The Agency believes that the record reflects that the EPA considered the SC DHEC’s submissions and fully responded to SC DHEC’s submissions and comments; thus, the record supports the Agency’s final designation decision.

Further, the EPA statement regarding “timing constraints and the lack of additional information” cited by the Petitioner, can be found in Section 3.1.3 Meteorology of EPA’s Response to Comments but was taken out of context by the Petitioner in its Petition for Reconsideration. This statement is referring to states that did not conduct a back trajectory analysis and concludes that “the default wind rose analysis in conjunction with the remainder of the multi-factor analysis can provide an adequate assessment of appropriate boundaries.” It was not stating that the timing constraints associated with the designation process resulted in insufficient time to consider information submitted by the states or that the EPA decisions were based on incomplete or insufficient information.

Here, South Carolina (and North Carolina) did conduct back trajectory analyses, which the EPA reviewed as part of the meteorological analyses for counties in both states. The EPA provided its analysis of the supplied meteorological analyses in the EPA's Technical Support Document (TSD) on page 15.

The EPA did not use or include in the Agency's TSD an EPA-generated back trajectory but relied on the combination of North Carolina's and South Carolina's meteorological analyses to assess the "meteorology factor" in the five factor analysis. On page 15 of the TSD, the EPA states that North Carolina's interpretation of the meteorological data is consistent with the EPA's assessment of the entire Charlotte area and that the Agency agrees with some but not all of South Carolina's meteorological data interpretation. The EPA went on to state that "nothing provided by South Carolina conclusively precludes transport of emissions from York County. Therefore, York County cannot be ruled out as a potential contributor to ozone violations at monitors in the Charlotte-Gastonia-Salisbury CSA [Combined Statistical Area]." TSD at page 15. Finally, the EPA reiterates that our decision to include a portion of York County in the nonattainment area was based on a thorough assessment of all five of the factors discussed in the TSD.

Finally, the EPA's assessment of SC DHEC's kriging analysis is on page 44 of the Response to Comments. We explained that "it is important to consider the uncertainty associated with interpolating (i.e., kriging) data collected at a limited number of air monitoring sites. South Carolina has not provided an uncertainty analysis for the kriging methodology that was used. Quoting from section 8.3 of EPA-454/R-04-004, '[a] kriging spatial interpolation surface is expected to provide a reasonable spatial description of the pollution process in general, but to require it to be highly accurate at each specific location may be an unreasonable expectation.' Therefore, the location of specific contours on South Carolina's map should be considered estimates and not necessarily highly accurate."

II. Adequacy of Consultation and TSD

Issue: The Petitioner claims that the EPA has provided insufficient consultation and detail in its TSD to give SC DHEC a clear understanding of the rationale used in making the designation decision. The Petitioner claims that, following a meeting between the EPA and SC DHEC during the 120-day consultation period, SC DHEC expected "additional opportunities for consultation after all the recommendations were received and prior to a final designation being made. Further, in its February 29, 2012, 120-day response letter to the EPA, SC DHEC expressly requested 'continued discussions regarding these matters, especially if EPA received boundary recommendations for this area that may be different from our submittal.'" Petition at 2. In addition, the Petitioner claims that the "EPA stated that much of the decision regarding the designation was 'deliberative' and could not be shared..." and claims that they have yet to be made aware of any deficiencies in the SC DHEC recommendation. Petition at 3.

Response: The EPA provided detail about the basis for its decision in the TSD and in the Response to Comments document. As the Petitioner stated, during the 120-day consultation period, the EPA met with SC DHEC to discuss the ozone designation process and the State's recommendations. Also, pages 43 through 45 of the EPA's Response to Comments document provide our response to issues South Carolina raised regarding the EPA's intended designation for the Charlotte – Rock Hill, NC-SC nonattainment area, agreeing with some but not all of SC DHEC's technical conclusions. In addition, the EPA TSD provides the full rationale used in making the designation decision. As noted by the Petitioner, the internal process to develop a final decision regarding the designation was deliberative;

however, this does not mean that the EPA failed to provide information in the record to support its determination. The EPA's TSD includes the information necessary to support the designations decision. In the 120-day letter, the EPA outlined the Agency's designation approach and provided its preliminary technical analysis, then during the 120-day consultation period the EPA considered subsequent information provided by SC DHEC (as described in the EPA's Response to Comment document), and finally, the EPA provided the basis for our designation decision in the final TSD for the Charlotte – Rock Hill, NC-SC area. While the EPA appreciates that SC DHEC may not agree with the designation determination reached, the Agency has provided in the record all the information relied upon to reach that determination.

The EPA also notes that all the information available to the Agency from other stakeholders regarding the Charlotte – Rock Hill, NC-SC area was available to SC DHEC prior to the EPA's final designations. The Catawba Indian Nation submitted an unclassifiable/attainment recommendation to the EPA on February 29, 2012. The Catawba Indian Nation recommendation, the SC DHEC recommendations and the North Carolina recommendations, as well as the supplemental information provided for the EPA's consideration were posted in the docket and on EPA's website on or about March 5, 2012.

III. Application of Factors

Issue: The Petitioner quotes an EPA statement regarding the York County monitor and interprets the EPA quote to mean that “any area containing a source of emissions should forever be considered as contributing to far removed violations unless and until it can be conclusively proved otherwise.” The Petitioner claims that SC DHEC has “adequately demonstrated... through scientific analysis that York County does not contribute... to violations elsewhere.” The Petitioner also questions the use and interpretation of the word “contribute” found in the Clean Air Act Section 107(d)(1)(A)(i), and claims that under the EPA's interpretation, any single source of emission could contribute to remote violations and thereby justify virtually any nonattainment area. Finally, the Petitioner notes that it agrees with the EPA's designation of the Catawba Indian Nation Reservation as a separate unclassifiable/attainment area from the Charlotte – Rock Hill, NC-SC nonattainment area, but disagrees that the surrounding portion of York County should have been designated nonattainment. The Petitioner claims that the EPA actions to designate the Catawba Indian Nation Reservation as attainment and the surrounding portions of York County as nonattainment are inconsistent and irreconcilable, and indicate that the EPA did not consistently apply the 5 relevant factors. Petition at 3-4.

Response: The EPA does not agree that “DHEC has adequately demonstrated, through scientific analysis that York County does not contribute... to violations elsewhere,” nor does the Agency agree with SC DHEC's interpretation of the EPA's statement regarding attainment status of the York County monitor as indicating that the EPA would “justify virtually any nonattainment area” without an appropriate analysis and evidence of contribution. The record for the EPA's designation describes our assessment of information relevant to five factors in our conclusion that a portion of York County contributed to nonattainment in the Charlotte – Rock Hill, NC-SC area. See the final Charlotte area TSD and Response to Comments at pages 9 and 15. In brief, York County is among those in the area that have the highest NO_x and VOC emissions, and meteorological information supports a conclusion that emissions from the county contribute to ozone violations in the area.

With respect to the Petitioner's claims regarding the separate designation for the Catawba Indian Nation, the first page of the Appendix to the Charlotte-Rock Hill, NC-SC TSD – Catawba Indian Nation

(Appendix) states that “[t]he EPA’s December 20, 2011, Policy for Establishing Separate Air Quality Designations for Areas of Indian Country, provides a process whereby an analysis of the factors described below may be used to determine whether an area of Indian Country located within or next to a larger multi-jurisdictional area should be excluded from that area and potentially designated separately or whether it should be designated according to the rest of the area.” The EPA then provides, in the remainder of the Appendix, a summation of the information relied upon by the EPA to designate the Catawba Indian Reservation as attainment/unclassifiable for purposes of the 2008 Ozone NAAQS, separate from the Charlotte-Rock Hill, NC-SC Area.

Page 2 of the Appendix describes that there are no monitors within the Catawba Indian Nation Reservation and notes that, based on data provided by North Carolina, South Carolina and the Catawba Indian Nation, there is no indication that the air quality on the Catawba Indian Nation Reservation is violating the 2008 Ozone NAAQS. The sole monitor in York County, located approximately 16 to 18 miles west of the Reservation, is attaining the 2008 Ozone NAAQS based upon the 2009-2011 period. Consequently, the EPA’s designation analysis for this Reservation is based upon whether any sources therein are contributing to the violating monitors in the Charlotte-Gastonia-Salisbury CSA. Consistent with the EPA’s December 20, 2011, Policy, data from the Catawba Indian Nation and York County were independently analyzed to determine if either area was contributing to violations at monitors in the Charlotte-Gastonia-Salisbury CSA. There are no point sources on the Reservation, and few mobile and area sources. Accordingly, we concluded that the Catawba Indian Nation Reservation is appropriately designated unclassifiable/attainment in agreement with their request.

IV. Jurisdictional Boundaries

Issue: The Petitioner states that “South Carolina has yet to understand the scientific rationale used in this decision, despite its many requests” and they cite the EPA’s December 20, 2011, tribal designation policy regarding consultation. The Petitioner also states that “[b]ecause we have yet to be made aware of any specific claimed deficiencies in DHEC’s back trajectory analysis or in other materials submitted by DHEC and because, we did not anticipate different findings related to Indian lands and the area immediately surrounding them, South Carolina had no real reason to offer alternatives for a more compact nonattainment zone. The findings and recommendations we submitted were focused on York County as a whole because the data and analysis supported such a focus. The EPA has clearly disagreed. However, had the consultation process afforded a greater opportunity for understanding the scientific basis for our disagreements, it is highly likely a better choice could have been made for a nonattainment area boundary.” SC DHEC mentions a future metropolitan planning organization (MPO) change and goes on to cite example where in North Carolina the EPA designated partial county boundaries using township boundaries.

The Petitioner states that they would like to discuss the boundaries with the EPA in the future and they state that “[d]esignating uncertain boundaries due to impending changes or drawing the boundaries larger than they need to be, based on an incomplete examination of all available data would place York County and the rest of South Carolina at an unfair economic disadvantage. Instead... [SC DHEC would] like to discuss potential boundaries that might rely on more appropriate jurisdictional boundaries.”

Response: See Response to II above regarding the EPA’s consultation with SC DHEC and the EPA’s rationale for the designation decision. The EPA believes that SC DHEC had the opportunity prior to and during the 120 day consultation period to offer alternatives to its recommendation that the entire York

County be attainment. As mentioned above, all the information that was provided to the Agency for consideration from parties in this area was made available on the EPA website on March 5, 2012. Not having any alternatives with supporting technical information from SC DHEC to consider besides its recommendation of attainment for the entire York County, the EPA designated the urbanized portion of York County nonattainment.¹ In contrast, in response to the EPA's 120-day letter, North Carolina provided the EPA with a technical justification for the township boundaries used for the final designation related to the North Carolina portion of the Charlotte – Rock Hill, NC-SC area. This information also was included with the materials provided on the EPA's website on March 5, 2012, and was available to SC DHEC prior to the Agency's final designation for the area which was signed by the EPA Administrator on April 30, 2012. The EPA considered North Carolina's recommendation and technical justification for the alternative boundary for their portion of the Charlotte – Rock Hill, NC-SC area, and determined that the available information supported designation of partial counties consistent with the State's recommendation.

There was an opportunity for stakeholders to provide updated information about future changes to the MPO boundary during the EPA's public comment period and during the period prior to the EPA's final designations; however, no such information was provided. The EPA believes that the boundaries for the York County portion of this Area are clear and notes that this boundary is identical (with the exception of Indian Country) to the boundary of the Area for the nonattainment designation the 1997 8-hour ozone NAAQS.

Finally, and as was stated in the EPA's Response to Comments on page 39, "We do not believe that regulatory burden or compliance costs are pertinent considerations in determining whether an area is violating the NAAQS or contributing to a nearby violation of the NAAQS." Also see the EPA's Response to Comments Section 3.1.5 on page 14.

¹ The EPA notes that the nonattainment portion of York County covers only a portion of the Rock Hill-Fort Mill Area Transportation Study (RFATS) MPO area in eastern York County.

