



ROY COOPER  
*Governor*

WILLIAM G. ROSS, JR.  
*Acting Secretary*

January 13, 2017

Heather McTeer Toney  
Regional Administrator  
U.S. Environmental Protection Agency, Region 4  
Sam Nunn Federal Center  
61 Forsyth Street, SW  
Atlanta, Georgia 30303-8960

**Subject:** North Carolina's Recommendation on Boundaries for the 2010 1-Hour Sulfur Dioxide (SO<sub>2</sub>) National Ambient Air Quality Standard

Dear Ms. Toney:

Pursuant to the requirements of the federal Clean Air Act and on behalf of Governor Roy Cooper, I am submitting the State of North Carolina's recommendation concerning the boundaries of areas that either attain or do not attain the 2010 1-hour SO<sub>2</sub> Primary National Ambient Air Quality Standard (NAAQS). I am pleased to recommend an attainment designation for the areas under consideration in this round of designations for the SO<sub>2</sub> standard. The recommendation is based on an evaluation of the five factors specified in U.S. Environmental Protection Agency (EPA's) "Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide NAAQS", and covers all areas in North Carolina except areas where monitoring will be done to characterize air quality near four facilities with large emissions of SO<sub>2</sub> and except for Brunswick County, which was designated in an earlier Round 2 of the SO<sub>2</sub> designations process.

As required in the final SO<sub>2</sub> Data Requirements Rule (DRR), North Carolina has identified four SO<sub>2</sub> facilities (Mayo, Belews Creek, Marshall and Allen Plants) that are characterized through air quality dispersion modeling analysis. Their respective modeling protocols and modeling analysis results have been submitted to EPA per the timeline specified in the DRR. The modeling analysis shows that SO<sub>2</sub> concentrations within the modeling domain of each facility are below the 2010 1-hour SO<sub>2</sub> NAAQS and that no violation of the standard exists. North Carolina is recommending that all townships contained within the modeling domains be designated attainment.

North Carolina is evaluating four facilities (PCS Phosphate, Evergreen Packaging, Asheville Steam Plant, and Roxboro Plant) through monitoring. Relevant information has been submitted to EPA as part of the State's annual monitoring network plan. Source-oriented monitoring at the PCS Phosphate's Bayview site in Beaufort County shows that the 2013-2015 SO<sub>2</sub> design value is well below the 2010 SO<sub>2</sub> NAAQS. All townships within Beaufort County are recommended to be designated attainment. North Carolina is deferring boundary recommendation for the remaining three sites whose ambient SO<sub>2</sub> monitoring began on January 1, 2017. The State intends to submit boundary recommendation for these facilities as part of the Round 4 designations process once 2017-2019 ambient SO<sub>2</sub> data are collected and certified.

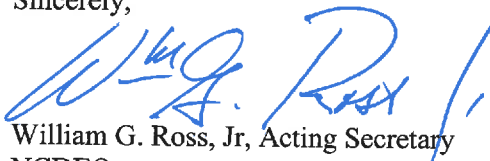
North Carolina also operates a network of five ambient SO<sub>2</sub> monitors (Castle Hayne, Durham Armory, Millbrook, Hattie Avenue and Garinger). The 2013-2015 SO<sub>2</sub> design values for the Castle Hayne, Durham Armory, and Millbrook ambient monitors are well below the 2010 SO<sub>2</sub> NAAQS. All townships within New Hanover County, Durham County and Wake County are recommended to be designated attainment. The remaining two ambient monitoring sites (Hattie Avenue and Garinger) are located within the modeling domains of the Belews Creek, Marshall and Allen plants. The design values for these monitoring sites are also below the 2010 SO<sub>2</sub> NAAQS, which further supports the attainment recommendation made above for the modeled sites.

North Carolina reviewed the size and location of SO<sub>2</sub> facilities in the remaining counties outside of the modeled and monitored areas. Many townships do not have any SO<sub>2</sub> emitting facilities, while others mainly contain facilities that emit less than 100 tons per year (tpy) of SO<sub>2</sub>. A review of groups of facilities located within a 10-kilometer radius of a facility with emissions below 2,000 tpy SO<sub>2</sub> determined that a cluster of facilities with collective emissions above 2,000 tpy was not present. North Carolina is recommending that all remaining townships be designated attainment due to the presence of no SO<sub>2</sub> emitting facilities or facilities with emissions less than the 2,000 tpy threshold established in DRR. Further characterization of air quality around these smaller facilities is not needed.

Based on the collective review of dispersion modeling results, air quality measurements data, emissions records, and other factors, we believe that the enclosed boundary recommendations are based on sound science and verifiable assessment techniques. We recognize the health impact of SO<sub>2</sub>, and believe the recommended approach is the most effective way to achieve the goals of cleaner air, healthier lives, a stronger economy, and more effective conservation of our land and water. The information provided herein fully supports EPA's Round 3 designation action which must be completed by December 31, 2017 for areas where states have not installed and begun operating a new SO<sub>2</sub> monitoring network.

North Carolina is committed to protecting the health of our citizens, our environment, and our economy. Improving and maintaining air quality is critical to the health of our citizens, our future growth, prosperity and quality of life. We look forward to discussing this boundary recommendation with you. More detailed information and supporting data are included in the enclosed recommendation package.

Sincerely,



William G. Ross, Jr, Acting Secretary  
NCDEQ

SCH/ssm

Enclosure

cc: The Honorable Roy Cooper  
Ms. Sheila C. Holman  
Ms. Leslie Rhodes  
Mr. David Brigman  
Mr. Minor Barnette