

**DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY**

Statutory Authority: 7 Delaware Code, Chapter 60 (7 Del.C. Ch. 60)

Secretary's Order No.: 2013-A-0036

**RE: Approving Final Revision to Delaware's State Implementation Plan (SIP),
to wit: Regional Haze 5-Year Periodic Report Progress Toward the Reasonable Progress Goals for Visibility in
Class I Federal Areas and Determination of Adequacy of Existing Implementation Plan**

Date of Issuance: September 24, 2013

Effective Date of the Amendment: September 24, 2013

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") the following findings, reasons and conclusions are entered as an Order of the Secretary in the above-referenced rulemaking proceeding.

Background and Procedural History

This Order considers the proposed revision to the Delaware State Implementation Plan (SIP) that addresses the Regional Haze 5-Year Periodic Report Progress Toward the Reasonable Progress Goals for Visibility in Class I Federal Areas and Determination of Adequacy of Existing Implementation Plan. Regional haze is defined as visibility impairment that is produced by a multitude of sources and activities which emit fine particles and their precursors, and which are located across a broad geographic area. These emissions are transported over large regions, including national parks, forests and wilderness areas ("Class I" federal areas).

The Federal Clean Air Act ("CAA") mandates protection of visibility, especially in Class I areas. In 1999, and in various revisions that extend through 2006, the U.S. Environmental Protection Agency ("EPA") finalized the Regional Haze Rule ("RHR"). Under this rule, states are required to develop a series of SIPs every 10 years to reduce visibility impairment, with the express intent that, by 2062, visibility in all Class I areas will be returned to natural conditions. The first such SIP must establish interim goals and emissions reduction strategies for 2018.

On September 25, 2008, the Department's Division of Air Quality ("DAQ") submitted to EPA the Delaware Visibility State Implementation Plan (the "2008 SIP"), which was Delaware's first SIP demonstrating how Delaware met its 2018 visibility goals and emission reduction strategies. The 2008 SIP included (1) long-term strategies; (2) how Delaware met its fair share of the "reasonable progress goals" toward reducing visibility impairment in Class I areas; and (3) Best Available Retrofit Technology. EPA approved Delaware's SIP on July 19, 2011 (effective on August 18, 2011).

The aforementioned 5-Year Progress Report is a proposed SIP revision which fulfills the requirements of the Regional Haze Rule ("RHR") at 40 C.F.R. Part 51, Sections 308(g), 308(h), and 308(i). It is a report on Delaware's progress in improving visibility five years after Delaware's initial SIP submission to the EPA in 2008, and is due to the EPA by September 25, 2013.

The Department published its initial proposed revision to the aforementioned Delaware SIP in the August 1, 2013 *Delaware Register of Regulations*, and held a public hearing on August 22, 2013. It should be noted that no members of the public attended the aforementioned hearing held by the Department, nor were any negative comments received in this matter. Proper notice of the hearing was provided as required by law.

The SIP is a complex, fluid document containing regulations, source-specific requirements, and non-regulatory items such as plans and emission inventories. Delaware's initial SIP was approved by the EPA on May 31, 1972. Since that initial approval, the Delaware SIP has been revised numerous times to address air quality non-attainment and maintenance issues. This was done by updating plans and inventories, and by adding new and revised regulatory control requirements. Delaware's SIP is compiled in the code of Federal Regulations at 40 C.F.R. Part 52, Subpart 1.

The Department's presiding hearing officer, Lisa A. Vest, prepared a Hearing Officer's Report dated September 12, 2013 (Report). The Report recommends certain findings and the adoption of the proposed revision to Delaware's State Implementation Plan, which addresses the aforementioned Regional Haze 5-Year Periodic Report, as attached to the Report as Appendix A.

Findings and Discussion

I find that the proposed revision to Delaware's aforementioned SIP is well-supported by the record developed by the Department, and I adopt the Report to the extent it is consistent with this Order. The Department's experts developed the record and drafted the proposed SIP revision.

I find that the Department's experts in the Division of Air Quality fully developed the record to support adoption of the proposed revision to the Delaware State Implementation Plan (SIP) that addresses the aforementioned Regional Haze 5-Year Periodic Report. With the adoption of this Order, Delaware will be enabled to fulfill the requirements of the Regional

Haze Rule ("RHR") at 40 C.F.R. Part 51, Sections 308(g), 308(h), and 308(i), and will report its progress in improving visibility five years subsequent to Delaware's initial SIP submission to EPA in 2008.

In conclusion, the following findings and conclusions are entered:

- 1.) The Department has jurisdiction under its statutory authority to issue an Order adopting this proposed SIP revision as final;
- 2.) The Department provided adequate public notice of the proposed SIP revision, and provided the public with an adequate opportunity to comment on the proposed SIP revision, including at the public hearing held on August 22, 2013;
- 3.) The Department held a public hearing on August 22, 2013, in order to consider public comment before making any final decision;
- 4.) The Department's Hearing Officer's Report, including its recommended record and the recommended SIP revision, as set forth in Appendix A, is adopted to provide additional reasons and findings for this Order;
- 5.) The recommended revision to Delaware's State Implementation Plan (SIP) which addresses the Regional Haze 5-Year Periodic Report Progress Toward the Reasonable Progress Goals for Visibility in Class I Federal Areas and Determination of Adequacy of Existing Implementation Plan, should be adopted as final, thereby enabling Delaware to (1) fulfill the requirements of the Regional Haze Rule ("RHR") at 40 C.F.R. Part 51, Sections 308(g), 308(h), and 308(i); (2) report its progress in improving visibility five years subsequent to Delaware's initial SIP submission to EPA in 2008; and (3) because the revision is well supported by documents in the record;
- 6.) The Department shall submit this Order approving the final revision to Delaware's State Implementation Plan (SIP) that addresses the Regional Haze 5-Year Periodic Report Progress Toward the Reasonable Progress Goals for Visibility in Class I Federal Areas and Determination of Adequacy of Existing Implementation Plan to the *Delaware Register of Regulations* for publication in its next available issue, and provide such other notice as the law and regulation require and the Department determines is appropriate.

Collin P. O'Mara, Secretary

The SIP may be viewed on DNREC's website at:

<http://www.dnrec.delaware.gov/Air/Pages/Visibility-SIP-5-yr-Progress-Report.aspx>

**Delaware State Implementation Plan Revision:
Regional Haze 5-Year Periodic Report
Progress Towards the Reasonable Progress Goals for Visibility In Class I Federal Areas And Determination of
Adequacy of Existing Implementation Plan**

PROPOSED Final

July 15, 2013 September 24, 2013

EXECUTIVE SUMMARY

Regional haze is defined as visibility impairment that is produced by a multitude of sources and activities which emit fine particles and their precursors, and which are located across a broad geographic area. These emissions are transported over large regions and can obscure vistas integral to the value of our national parks, forests and wilderness areas ("Class I" federal areas). The Clean Air Act mandates requirements to protect visibility, especially in Class I Federal areas. In 1999, the U.S. Environmental Protection Agency (EPA) finalized the Regional Haze Rule (RHR) to address visibility impairment at Class I areas.

The RHR calls for state, tribal, regional planning organizations (RPO) and federal agencies to work together to improve visibility in 156 Class I areas. Specifically, states are required to develop a series of state implementation plans (SIP) to reduce visibility impairment with the express intent that by 2064, the visibility in all Class I areas will be returned to natural conditions. The first such SIP must establish interim goals and emissions reduction strategies for 2018, based on trends from various sources including point, area, and mobile (both onroad and nonroad) source emissions, biogenic, and wildfire and agricultural emissions.

Visibility assessments prepared by the RPO: Mid-Atlantic/Northeast Visibility Union (MANE-VU) determined that for the initial Regional Haze SIPs, ammonium sulfate was the largest contributor to visibility impairment at Class I areas and reduction of sulfur dioxide (SO₂) emissions is the most effective means of reducing ammonium sulfate. As such, the majority of the focus with regard to existing and planned emission controls pertains to the largest sources of SO₂ emissions. These sources consist of electric generating units (EGUs) and large industrial boilers. Hence, MANE-VU's long term strategy to reduce SO₂ to improve visibility prior to 2018 includes:

- Timely implementation of Best Available Retrofit Technology,
- Reducing the sulfur content of fuel oil,
- Reducing sulfur dioxide emissions from electric power plants,
- Seeking to reduce emissions outside MANE-VU that impair visibility in our region, and
- Continuing to evaluate other measures such as energy efficiency, alternative clean fuels, and measures to reduce emissions from wood and coal combustion.

On September 25, 2008 Delaware submitted its "Delaware Visibility State Implementation Plan" (regional haze SIP) to EPA to comply with the 2018 MANE-VU strategy. Many of the EGUs and large industrial boilers within Delaware have committed to and have installed controls through a number of mechanisms, including Delaware's multi-pollutant regulation, federally enforceable permits, and state and federal consent agreements. Reductions associated with many of these mechanisms were used to estimate the 2018 visibility improvements at the Brigantine Wilderness Class I area in New Jersey. However, since Delaware submitted its initial regional haze SIP in 2008, additional regulations and actions have been imposed which will reduce visibility impairing pollutants. Moreover, as recently as the summer of 2012, several large EGUs have announced plans to either shutdown sources or curtail emissions by converting to natural gas, leading to even more significant reductions in SO₂ emissions. As this report will show, these additional mandates will help ensure that the reasonable progress goals are attained well before 2018.

Section 308(g) of the RHR also requires each state to report on progress in improving visibility five (5) years after submitting the initial SIP. Known as "5-Year Progress Reports" (Report), they must be in the form of SIP revisions that comply with the procedural requirements of the United States Clean Air Act, as amended. This Report fulfills the requirements of 40 CFR 51.308(g) requiring periodic reports evaluating progress in implementing the measures included in Delaware's 2008 SIP. This document also fulfills the requirements of 40 CFR Part 51.308(h), 308(i), and 40 CFR 51 Parts 102 and 103.

It is for these reasons that the Delaware Department of Natural Resources and Environmental Control (DNREC) submits a negative declaration to EPA, specifying that the Delaware 2008 Visibility State Implementation Plan is sufficient for meeting the requirements outlined in the RHR. Furthermore, no additional controls are necessary, based on this first Report.

17 DE Reg. 565 (11/01/13)(Final)