DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Statutory Authority: 7 Delaware Code, Section 6010(a) and (c); (7 **Del.C.** §6010(a) & (c))
7 **DE Admin. Code** 1103

FINAL

Secretary's Order No.: 2022-A-0011

RE: Approving Final Regulations to 7 DE Admin. Code 1103: *Ambient Air Quality Standards*

Date of Issuance: June 27, 2022

Effective Date of the Amendment: August 11, 2022

1103 Ambient Air Quality Standards

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC"), and pursuant to 7 *Del.C.* §6010(a) and (c), and all other relevant statutory authority, the following findings of fact based on the record, reasons and conclusions are entered as an Order of the Secretary in the above-referenced promulgation.

Background, Procedural History and Findings of Fact

This Order relates to the Department's proposed regulatory amendments to 7 DE Admin. Code 1103: *Ambient Air Quality Standards* ("Amendments"). The Department's Division of Air Quality ("DAQ") is proposing to amend 7 DE Admin. Code 1103 to (1) update the National Ambient Air Quality Standards ("NAAQS") for ground level ozone; (2) update the Code of Federal Regulations ("CFR") reference dates for all NAAQS; and to (3) remove the sulfur dioxide ("SO2") 24-hour and annual primary standards that have been revoked by the United States Environmental Protection Agency ("EPA").

Each of the above-referenced regulatory updates is being proposed by the Department so that Delaware's regulations maintain consistency with the EPA's current federal regulations. The Department has the statutory basis and legal authority to promulgate these proposed Amendments, pursuant to 7 *Del.C.* §§6010(a) and (c).

The NAAQS are established by the EPA for six "criteria air pollutants:" ground-level ozone, SO2, particulate matter, nitrogen oxide, carbon monoxide, and lead. The NAAQS have both primary and secondary standards. Primary standards are required to protect public health, while secondary standards protect the environment.

The Clean Air Act ("CCA") requires states to implement standards and determine whether they are in compliance with the NAAQS. The CCA also requires the EPA to periodically review the science upon which the standards are based and the standards themselves, to determine whether the standards should be revised.

In 2015 the EPA promulgated revised primary and secondary ozone NAAQS for ground-level ozone via the EPA's final rule, published on October 26, 2015, as set forth in Volume 80 of the Federal Register ("FR"), beginning on page 65,292. In 2010, the EPA reviewed the NAAQS for SO2 and determined that the available science showed that a shorter-term one-hour average measurement of SO2 would be more protective of human health. Consequently, the EPA revoked the SO2 24-hour primary standard and the SO2 annual primary standard. The final rule was published on June 22, 2010, in Volume 75 of the FR, beginning on Page 35,520.

The above changes were subsequently codified in Title 40 of the CFR, Sections 50.19 and 50.17, respectively. In addition to updating these standards, the proposed regulatory Amendments also include updating the federal reference dates, so that Delaware's regulation references the most current methodologies set by the EPA for measuring criteria pollutant levels.

Currently, the primary and secondary ozone NAAQS as set forth in 7 DE Admin. Code 1103, Section 6.0, reflect an outdated standard of 0.075 parts per million ("ppm"). The federal regulatory standards, established by EPA in 2015, are set at 0.070 ppm. This proposed regulatory action will amend the current ozone standards in Delaware's regulations to 0.070 ppm to mirror that of EPA's current regulations and will update the CFR reference dates throughout the rule to July 1, 2019, to ensure references to methodologies for measuring criteria pollutant levels are the most recent.

Lastly, as noted above, the Department also proposes to remove the SO2 24-hour and annual primary standards that have been revoked by the EPA. Again, each update referenced above is being proposed by the Department so that Delaware's regulations maintain consistency with the EPA's current federal regulations (40 CFR 50.19: 80 FR 65292 and 40 CFR 50.17: 75 FR 35520).

The Department published the initial proposed Amendments in the October 1, 2021, *Delaware Register of Regulations* ("*Register*"). Accordingly, the Department held the public hearing regarding this regulatory action on October 27, 2021. It

should be noted that the Department received no comments regarding this proposed regulatory action. All notification and noticing requirements concerning this matter were met by the Department. Proper notice of the hearing was provided as required by law.

Following her review of the hearing record ("Record"), Hearing Officer Vest prepared her Hearing Officer's Report, dated March 10, 2022 ("Report"), which expressly incorporated into the Record the Department's proposed Amendments, attached to her Report as Appendix "A." The Report documents the proper completion of the required regulatory development process, establishes the Record, and recommends the adoption of the Department's proposed Amendments, as attached to the Report as Appendix "A."

Reasons and Conclusions

The Department is currently proposing the adoption of the aforementioned proposed amendments to 7 DE Admin. Code 1103, *Ambient Air Quality Standards*. As noted previously, the proposed Amendments will update the Department's DAQ regulations regarding (1) the NAAQS for ground level ozone; (2) the CFR reference dates for all NAAQS; and will (3) remove the SO2 24-hour and annual primary standards that have been revoked by the EPA. Each update is being proposed by the Department so that Delaware's regulations maintain consistency with the EPA's current federal regulations.

Based on the Record developed by the Department's experts and established by the Hearing Officer's Report, I find that the Department has provided appropriate reasoning regarding the need for the proposed Amendments, and that the same is well-supported. I further find that the Department's experts fully developed the Record to support adoption of the proposed Amendments, which will enable the Department to ensure consistency regarding the EPA's current federal regulations.

Thus, for the reasons stated above, the recommendations of the Hearing Officer are hereby adopted, and I direct that the proposed Amendments to 7 DE Admin. Code 1103: *Ambient Air Quality Standards*, be promulgated as final, in the customary manner provided by law.

In conclusion, the following reasons and conclusions are hereby entered:

1. The Department has the statutory basis and legal authority to act with regard to the proposed amendments to 7 DE Admin. Code 1103: *Ambient Air Quality Standards*, pursuant to 7 *Del.C.* §6010(a) and (c);
2. The Department has jurisdiction under its statutory authority to issue an Order adopting the proposed Amendments as final;
3. The Department provided adequate public notice of the proposed Amendments and all proceedings in a manner required by the law and regulations, and provided the public with an adequate opportunity to comment on the same subsequent to the time of the public hearing (through November 11, 2021), in order to consider all public comment on the same before making any final decision;
4. Promulgation of the proposed Amendments will enable the Department to update the Department's DAQ regulations regarding the NAAQS for ground level ozone and the CFR reference dates for all NAAQS, and will also remove the SO2 24-hour and annual primary standards that have been revoked by the EPA, so that Delaware's regulations maintain consistency with the EPA's current federal regulations;
5. The Department has reviewed the proposed Amendments in the light of the Regulatory Flexibility Act, consistent with 29 *Del.C.* Ch. 104, and believes the same to be lawful, feasible, and desirable, that it will not establish reporting requirements or substantive additional costs for individuals or small businesses, and that the recommendations as proposed should be applicable to all Delaware individuals or small businesses equally;
6. The Department's proposed Amendments, as published in the October 1, 2021, *Delaware Register of Regulations*, are adequately supported, are not arbitrary or capricious, and are consistent with the applicable laws and regulations. Consequently, the same should be approved as final Amendments, which shall go into effect ten days after publication in the next available issue of the *Delaware Register of Regulations*;
7. The Hearing Officer's Report, including its established Record and the recommended proposed Amendments, as set forth therein in Appendix "A," are hereby adopted to provide additional reasons and findings for this Order;
8. The Department has an adequate Record for its decision, and no further public hearing is appropriate or necessary; and
9. The Department shall submit this Order approving as final the proposed Amendments to the *Delaware Register of Regulations* for publication in its next available issue and provide such other notice as the law and regulation require, as the Department determines is appropriate.

Shawn M. Garvin
Secretary

1103 Ambient Air Quality Standards

~~01/11/2014~~ **[~~xx/xx/xxxx~~ 08/11/22]**

1.0 General Provisions

1.1 Air quality standards are required to assure that ambient air quality shall be consistent with established criteria and shall serve to effectively and reasonably manage the air resources of the State of Delaware.

1.1.1 Primary air quality standards provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly.

1.1.2 Secondary air quality standards provide public welfare protection, including protection against decreased visibility and damage to crops, animals, vegetation, and buildings.

1.2 At such time as additional pertinent information becomes available with respect to applicable air quality criteria, recommendations shall be incorporated and the air quality standards shall be subject to revisions.

1.3 The absence of a specific ambient air quality standard shall not preclude actions by the Department to control contaminants to assure protection, safety, welfare, and comfort of the people of the State of Delaware.

1.4 Air quality standards are defined by frequency distribution presentations and arithmetic averages. The characteristic parameters describing the frequency distribution are the geometric mean and 99th percentile.

1.4.1 The geometric mean is defined as the Nth root of the product of N numbers. Assuming a log-normal cumulative frequency distribution, the 50th percentile value will be equal to the geometric mean.

1.4.2 The arithmetic average mean is defined as the sum of a set of values divided by the number of values.

1.4.3 The 99th percentile for a group of numbers is defined as that value which is exceeded by one percent of the numbers.

1.5 The ambient air quality values stated herein shall apply to all areas outside a source property line.

1.6 The sampling and analytical procedures and techniques employed to determine ambient air concentrations of contaminants shall be consistent with methods which result in a representative evaluation of the prevailing conditions. The following methods shall be used directly or employed as reference standards against which other methods may be calibrated;

1.6.1 Ambient concentrations of total suspended particulates shall be determined by the reference high volume method in accordance with 40 CFR, Part 50, Appendix B, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High-Volume Method), ~~April 22, 1983~~ July 1, 2019.

1.6.2 Ambient concentrations of sulfur dioxide shall be determined by the reference or equivalent method in accordance with 40 CFR, Part 50, Appendix A-1, Reference Method Principle and Calibration Procedure for the Measurement of Sulfur Dioxide in the Atmosphere (Ultraviolet Fluorescence Method), ~~June 22, 2010~~ July 1, 2019, or 40 CFR, Part 50, Appendix A-2, Reference Method for the Measurement of Sulfur Dioxide in the Atmosphere (Pararosaniline Method), ~~June 22, 2010~~ July 1, 2019.

1.6.3 Ambient concentrations of carbon monoxide shall be determined by the reference method in accordance with 40 CFR, Part 50, Appendix C, Measurement Principle and Calibration Procedure for the Measurement of Carbon Monoxide in the Atmosphere (Non-Dispersive Infrared Photometry, ~~August 31, 2011~~ July 1, 2019.

1.6.4 Ambient concentrations of ozone corrected for interferences due to nitrogen oxides and sulfur dioxide shall be determined by the reference method in accordance with 40 CFR, Part 50, Appendix D, Measurement Principle and Calibration Procedure for the Measurement of Ozone in the Atmosphere, ~~July 18, 1997~~ July 1, 2019.

1.6.5 Ambient concentrations of methane and non-methane hydrocarbons shall be determined by the reference method in accordance with 40 CFR, Part 50, Appendix E, ~~June 29, 1979~~ July 1, 2019.

1.6.6 Ambient concentrations of nitrogen dioxide shall be determined by the reference method in accordance with 40 CFR, Part 50, Appendix F, Measurement Principle and Calibration Procedure for the Measurement of Nitrogen Dioxide in the Atmosphere (Gas Phase Chemiluminescence), ~~January 20, 1983~~ July 1, 2019.

1.6.7 Ambient concentrations of hydrogen sulfide shall be determined by gas chromatographic separation - flame photometric detection.

1.6.8 Ambient concentrations of lead shall be determined by the reference method in accordance with 40 CFR, Part 50, Appendix ~~G~~ R, Reference Method for the Determination of Lead in Total Suspended Particulate Matter, ~~August 2, 2013~~ July 1, 2019.

1.6.9 Ambient concentrations of PM_{10} particulate shall be determined by a reference method in accordance with 40 CFR, Part 50, Appendix J, Reference Method for the Determination of Particulate Matter as PM_{10} in the Atmosphere, ~~August 7, 1987~~ July 1, 2019, or an equivalent method.

1.6.10 Ambient concentrations of $PM_{2.5}$ particulate shall be determined by the reference method based on 40 CFR, Part 50, Appendix L, Reference Method for the Determination of Fine Particulate Matter as $PM_{2.5}$ in the Atmosphere, ~~October 17, 2006~~ July 1, 2019.

1.7 Air quality standards are expressed in metric units with the approximate equivalent volumetric units in parentheses. The standard conditions for air ambient monitoring is 760 mm. Hg and 25^{o}C. The formula to convert metric units to parts per million (ppm) is:

$$\text{ppm(vol)} = \frac{\mu g/m^3 \times 0.024465}{MW} \qquad \text{or} \qquad \frac{mg/m^3 \times 24.465 \times 10^{-6}}{MW}$$

where MW is molecular weight of the contaminant being measured.

17 DE Reg. 741 (01/01/14)

02/01/1981

2.0 General Restrictions

No person shall cause the air quality standards specified in this Regulation to be exceeded.

02/01/1981

3.0 Suspended Particulates

3.1 The Primary Ambient Air Quality Standards for Particulate Matter are:

3.1.1 An annual geometric mean of 75 micrograms per cubic meter not to be exceeded, based upon 24 hour average concentrations.

3.1.2 A value of 260 micrograms per cubic meter not to be exceeded more than once per year, based upon 24 hour average concentrations.

3.2 The Secondary Ambient Air Quality Standards for Particulate Matter are:

3.2.1 An annual geometric mean of 60 micrograms per cubic meter as a guideline for achieving the secondary standard based upon 24 hour average concentrations.

3.2.2 A value of 150 micrograms per cubic meter not to be exceeded more than once per year, based upon 24 hour average concentrations.

~~01/11/2014~~ **[~~xx/xx/xxxx~~ 08/11/22]**

4.0 Sulfur Dioxide

4.1 The national primary 1-hour air quality standard for oxides of sulfur is 75 parts per billion (ppb) measured in the ambient air as sulfur dioxide. The 1-hour ambient air quality standard is met when the three-year average of the annual (99th percentile) of the daily maximum 1-hour average concentration is less than or equal to 75 ppb.

4.1.1 Compliance with the national primary 1-hour air quality standard is determined in accordance with 40 CFR Part 50 Appendix T, Interpretation of the Primary National Ambient Air Quality Standards for Oxides of Sulfur (Sulfur Dioxide), ~~June 23, 2010~~ July 1, 2019.

4.1.2 The national primary 1-hour air quality standard for oxides of sulfur is set forth in 40 CFR Part 50.17, National Primary Ambient Air Quality Standards for Sulfur Oxides (Sulfur Dioxide), ~~June 22, 2010~~ July 1, 2019.

4.2 ~~The 24-hour primary national ambient air quality standard for oxides of sulfur is 0.14 parts per million (ppm), not to be exceeded more than once per calendar year.~~ Reserved.

~~4.2.1 Compliance with the national 24-hour primary ambient air quality standard for oxides of sulfur is determined in accordance with 40 CFR Part 50, Appendix A-1, Reference Method Principle and Calibration Procedure for the Measurement of Sulfur Dioxide in the Atmosphere (Ultraviolet Fluorescence Method), June 22, 2010, or 40 CFR, Part 50, Appendix A-2, Reference Method for the Measurement of Sulfur Dioxide in the Atmosphere (Pararosaniline Method), June 22, 2010.~~

~~4.2.2 The national primary 24-hour ambient air quality standard for sulfur oxides is set forth in 40 CFR Part 50.4, National Primary Ambient Air Quality Standards for Sulfur Oxides (Sulfur Dioxide), June 22, 2010.~~

4.3 ~~The national primary annual ambient air quality standard for sulfur oxides of 0.030 parts per million (ppm), annual arithmetic mean, shall not be exceeded.~~ Reserved.

~~4.3.1 Compliance with the national annual primary ambient air quality standard for oxides of sulfur is determined in accordance with 40 CFR Part 50, Appendix A-1, Reference Method Principle and Calibration Procedure for the Measurement of Sulfur Dioxide in the Atmosphere (Ultraviolet Fluorescence Method), June 22, 2010, or 40 CFR, Part 50, Appendix A-2, Reference Method for the Measurement of Sulfur Dioxide in the Atmosphere (Pararosaniline Method), June 22, 2010.~~

4.3.2 ~~The national primary annual ambient air quality standard for sulfur oxides is set forth in 40 CFR Part 50.4, National Primary Ambient Air Quality Standards for Sulfur Oxides (Sulfur Dioxide), June 22, 2010.~~

4.4 The national secondary 3-hour ambient air quality standard for sulfur oxides is 0.5 parts per million (ppm), not to be exceeded more than once per calendar year.

4.4.1 Compliance with the national secondary 3-hour ambient air quality standard for oxides of sulfur is determined in accordance with 40 CFR Part 50, Appendix A-1, Reference Method Principle and Calibration Procedure for the Measurement of Sulfur Dioxide in the Atmosphere (Ultraviolet Fluorescence Method), ~~June 22, 2010~~ July 1, 2019, or 40 CFR, Part 50, Appendix A-2, Reference Method for the Measurement of Sulfur Dioxide in the Atmosphere (Pararosaniline Method), ~~June 22, 2010~~ July 1, 2019.

4.4.2 The national secondary 3-hour ambient air quality standard for sulfur oxides is set forth in 40 CFR Part 50.5, National Secondary Ambient Air Quality Standard for Sulfur Oxides (Sulfur Dioxide), ~~May 22, 1996~~ July 1, 2019.

17 DE Reg. 741 (01/01/14)

~~02/01/1981~~ **[~~xx/xx/xxxx~~ 08/11/22]**

5.0 Carbon Monoxide

5.1 The average concentration of carbon monoxide taken over any consecutive eight hours shall not exceed a value of 10 milligrams per cubic meter (9 ppm) more than once per year, as set forth in 40 CFR Part 50.8, National primary ambient air quality standards for carbon monoxide, July 1, 2019.

5.2 The average concentration of carbon monoxide taken over any one hour period shall not exceed 40 milligrams per cubic meter (35 ppm) more than once per year, as set forth in 40 CFR Part 50.8, National primary ambient air quality standards for carbon monoxide, July 1, 2019.

~~01/11/2014~~ **[~~xx/xx/xxxx~~ 08/11/22]**

6.0 Ozone

6.1 The 1-hour primary and secondary national ambient air quality standard for ozone is 235 $\mu g/m^3$ (0.12 ppm). The primary and secondary ozone ambient air quality standards are met when the number of days per calendar year with maximum hourly average concentrations above 235 $\mu g/m^3$ (0.12 ppm) is equal to or less than 1, as determined by 40 CFR Part 50, Appendix H, Interpretation of the 1-hour Primary and Secondary National Ambient Air Quality Standards for Ozone, ~~July 18, 1997~~ July 1, 2019. The 1-hour primary and secondary national ambient air quality standards are set forth in 40 CFR Part 50.9, National 1-hour Primary and Secondary Ambient Air Quality Standards for Ozone, ~~May 14, 2012~~ July 1, 2019.

6.2 The 8-hour primary and secondary national ambient air quality standard for ozone is ~~0.075~~ 0.070 parts per million (ppm). The primary and secondary ozone ambient air quality standards are met when the 3-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than or equal to ~~0.075 ppb~~ 0.070 ppm, as determined in accordance with 40 CFR Part 50, Appendix ~~P~~ U, Interpretation of the Primary and Secondary Air quality Standards for Ozone, ~~May 27, 2008~~ July 1, 2019. The 8-hour primary and secondary ozone standards are set forth in 40 CFR Part ~~50.15~~ 50.19, National Primary and Secondary Air Standards for Ozone, ~~May 27, 2008~~ July 1, 2019.

17 DE Reg. 741 (01/01/14)

02/01/1981

7.0 Hydrocarbons

7.1 The hydrocarbons standard in 7.2 of this regulation is for use as a guide in devising implementation plans to achieve the ozone standard.

7.2 The average concentration of hydrocarbons, exclusive of methane, taken over a three hour period from 6 to 9 a.m., local time, shall not exceed 160 micrograms per cubic meter (0.24 ppm) more than once per year.

~~01/11/2014~~ **[~~xx/xx/xxxx~~ 08/11/22]**

8.0 Nitrogen Dioxide

8.1 The national primary and secondary air quality standards for oxides of nitrogen (nitrogen dioxide indicator) are as follows:

8.1.1 The primary 1-hour air quality standard for oxides of nitrogen is 100 parts per billion (ppb), 1-hour average concentration, measured in the ambient air as nitrogen dioxide. Compliance with the 1-hour standard is demonstrated when the three-year average of the 98^{th} percentile of the daily maximum 1-hour average concentration is less than or equal to 100 ppb, as determined with 40 CFR Part 50, Appendix S,

Interpretation of the Primary Air Quality Standards for Oxides of Nitrogen (Nitrogen Dioxide), ~~February 9, 2010~~. July 1, 2019

8.1.2 The primary annual air quality standard for oxides of nitrogen is 53 parts per billion (ppb), annual average concentration, measured in the ambient air as nitrogen dioxide. The primary annual air quality standard is demonstrated when the average annual concentration in a calendar year is less than or equal to 53 ppb, as determined with 40 CFR Part 50, Appendix S, Interpretation of the Primary Air Quality Standards for Oxides of Nitrogen (Nitrogen Dioxide), ~~February 9, 2010~~ July 1, 2019.

8.1.3 The secondary annual air quality standard for oxides of nitrogen is 53 parts per billion (ppb), annual arithmetic mean concentration, measured in the ambient air as nitrogen dioxide. The secondary ambient air quality standard is demonstrated when the annual arithmetic mean concentration in a calendar year is less than or equal to 0.053 ppm. To demonstrate attainment, an annual mean must be based upon hourly data that are at least 75 percent complete or upon data derived from manual methods that are at least 75 percent complete for the scheduled sampling days in each calendar quarter.

8.2 The primary and secondary air quality standards for nitrogen dioxide are as set forth in 40 CFR Part 50.11, ~~February 9, 2010~~ July 1, 2019.

17 DE Reg. 741 (01/01/14)

02/01/1981

9.0 Hydrogen Sulfide

9.1 The average concentration of hydrogen sulfide taken over any consecutive three minutes shall not exceed 0.06 ppm.

9.2 The average concentration of hydrogen sulfide taken over any consecutive 60 minutes shall not exceed 0.03 ppm.

~~01/11/2014~~ **[~~xx/xx/xxxx~~ 08/11/22]**

10.0 Lead

The national primary and secondary ambient air quality standard for lead (Pb) and its compounds are 0.15 micrograms per cubic meter ($\mu g/m^3$), arithmetic mean concentration over a 3-month period measured in the ambient air as Pb. The national primary and secondary air quality standards are set forth in 40 CFR Part 50.16, National Primary and Secondary Ambient Air Quality Standards for Lead ~~November 12, 2008~~ July 1, 2019.

17 DE Reg. 741 (01/01/14)

~~01/11/2014~~ **[~~xx/xx/xxxx~~ 08/11/22]**

11.0 PM_{10} and $PM_{2.5}$ Particulates

11.1 The Primary and Secondary Ambient Air Quality Standards for Particulate Matter, measured as PM_{10} are:

11.1.1 The primary and secondary air quality standards for PM_{10} are150 micrograms per cubic meter ($\mu g/m^3$), 24 hour average concentration. The standards are attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$, as determined in accordance with 40 CFR, Part 50, Appendix K, Interpretation of the National Ambient Air Quality Standards for Particulate Matter, ~~October 17, 2006~~ July 1, 2019, is equal to or less than one. The national primary and secondary air quality standards are set forth in 40 CFR Part 50.6, National Primary and Secondary Ambient Air Quality Standards for PM_{10}, July 1, 2019.

11.1.2 Reserved

11.2 The Primary and Secondary Ambient Air Quality Standards for Particulate Matter, measured as $PM_{2.5}$ are:

11.2.1 The 24-hour primary and secondary air quality standard is 35 micrograms per cubic meter ($\mu g/m^3$) 24-hour average concentration. The 24-hour primary and secondary $PM_{2.5}$ standards are met when the 98^{th} percentile 24-hour concentration, as determined in accordance with 40 CFR, Part 50, Appendix N, Interpretation of the National Ambient Air Quality Standards for $PM_{2.5}$ ~~January 15, 2013~~, July 1, 2019, is less than or equal to 35 $\mu g/m^3$. The national 24-hour hour primary and secondary air quality standards are set forth in 40 CFR Part 50.13, National Primary and Secondary Air Quality Standards for $PM_{2.5}$ ~~October 17, 2006~~, July 1, 2019.

11.2.2 The primary annual air quality standard is 12.0 micrograms per cubic meter (mg/m^3) annual arithmetic mean concentration. The annual primary $PM_{2.5}$ standards are met when the annual arithmetic mean concentration, as determined in accordance with 40 CFR, Part 50, Appendix N, Interpretation of the

National Ambient Air Quality Standards for $PM_{2.5,}$ ~~January 15, 2013~~ July 1, 2019, is less than or equal to 12.0 $\mu g/m^3$. The national annual primary and secondary air quality standards are set forth in 40 CFR Part 50.18, National Primary and Secondary Air Quality Standards for $PM_{2.5,}$ ~~January 15, 2013~~ July 1, 2019.

11.2.3 The secondary annual air quality standard is 15.0 micrograms per cubic meter ($\mu g/m^3$) annual arithmetic mean concentration. The annual secondary $PM_{2.5}$ standards are met when the annual arithmetic mean concentration, as determined in accordance with 40 CFR, Part 50, Appendix N, Interpretation of the National Ambient Air Quality Standards for $PM_{2.5,}$ ~~January 15, 2013~~ July 1, 2019, is less than or equal to 15.0 $\mu g/m^3$. The national annual primary and secondary air quality standards are set forth in 40 CFR Part 50.13, National Primary and Secondary Air Quality Standards for $PM_{2.5,}$ ~~October 17, 2006~~ July 1, 2019.

3 DE Reg. 778 (12/01/99)
6 DE Reg. 968 (02/01/03)
12 DE Reg. 347 (09/01/08)
17 DE Reg. 741 (01/01/14)
26 DE Reg. 120 (08/01/22) (Final)