

ILLINOIS POLLUTION CONTROL BOARD

August 13, 2020

IN THE MATTER OF: )  
NATIONAL AMBIENT AIR QUALITY ) R19-14  
STANDARDS, USEPA AMENDMENTS ) (Identical-in-Substance Rulemaking - Air)  
(July 1, 2018 through December 31, 2018) )  
NATIONAL AMBIENT AIR QUALITY ) R20-3  
STANDARDS, USEPA AMENDMENTS ) (Identical-in-Substance Rulemaking - Air)  
(January 1, 2019 through June 30, 2019) )  
NATIONAL AMBIENT AIR QUALITY ) R20-11  
STANDARDS, USEPA AMENDMENTS ) (Identical-in-Substance Rulemaking - Air)  
(July 1, 2019 through December 31, 2019) ) (Consolidated)

Adopted Rule. Final Order.

OPINION AND ORDER OF THE BOARD (by B.F. Currie):

Section 10(H) of the Illinois Environmental Protection Act (Act) (415 ILCS 5/10(H) (2018)) requires the Board to adopt ambient air quality standards that are identical in substance to the National Ambient Air Quality Standards (NAAQS) adopted by the United States Environmental Protection Agency (USEPA).

USEPA took two actions relating to NAAQS during the second half of 2018, the nominal timeframe of docket R19-14, that warrant Board attention. None prompt amendments in this rulemaking, but the Board notes them.

USEPA took four actions relating to NAAQS during the first half of 2019, the nominal timeframe of docket R20-3, that warrant Board attention. Two actions require Board action. Another prompts amendments in this rulemaking. The Board notes the fourth.

USEPA took three actions relating to NAAQS during the second half of 2019, the nominal timeframe of docket R20-11, that warrant Board attention. One action prompts amendments in this rulemaking. The Board notes the other.

USEPA updated the *List of Designated Reference and Equivalent Methods* at the end of 2019 to include all federal reference methods (FRMs) and federal equivalent methods (FEMs) designated to date. This updated version of the list includes all FRMs and FEMs designated through its December 15, 2019 publication date.

To maintain ambient air quality standards that are identical in substance to USEPA's NAAQS, this opinion and order does the following:

- It adopts amendments to Illinois regulations at 35 Ill. Adm. Code 243; and
- It adopts corrections and updates that the Board finds necessary.

The Board proposed amendments for public comment on May 21, 2020. A Notice of Proposed Amendments appeared in the June 5, 2020 issue of the *Illinois Register*, at 44 Ill. Reg. 9330. A Notice of Public Information simultaneously appeared, at 44 Ill. Reg. 10040, providing public notice for a hearing on the proposal that occurred on July 16, 2020. At the public hearing, the hearing officer extended the public comment period past 45 days, until July 31, 2020.

The May 21, 2020 opinion and order set forth reasons for delay and extended the deadline for final action in this rulemaking until September 30, 2020. The June 5, 2020 Notice of Public Information provided notice of the reasons for delay and extended the deadline for final action.

The Board received three public comments on the proposed amendments.

PC 1 E-mail exchange on the proposal between JCAR staff and Board staff that occurred June 3, 2020 and June 4, 2020.

PC 2 Agency comments on the proposal dated July 8, 2020.

PC 3 Agency post-hearing comments dated July 29, 2020.

By PC 1, JCAR requested a correction to the text of the proposed amendments. The Board's responses to all JCAR-suggested corrections are listed in Table 5 of the Identical-in-Substance Rulemaking Addendum (Final) (IIS-RA(F)) supplementing the record for this rulemaking.

By PC 2, the Agency responded to several Board inquiries in the opinion and order of May 21, 2020. PC 2 also highlights an error in the opinion segment of the May 21, 2020 opinion and order. Appropriate segments of the below discussion consider the Agency comments.

By PC 3, the Agency further responded to Board inquiries in the opinion and order of May 21, 2020. An appropriate segment of the below discussion considers the Agency responses.

PC 3 also highlights that the name of an Agency representative who testified at hearing on July 16, 2020 does not appear in the summary listing of attendees on page 2 of the transcript. The Board notes the omission and observes that hearing testimony is attributed to the Agency representative by name on pages 15 through 18 of the transcript. The Board has requested correction of the summary listing of attendees.

This opinion has two main segments. First, the Board identifies USEPA's actions that resulted in this rulemaking. Second, the Board summarizes the corrections and updates that the Board finds necessary.

The text of the Board's adopted amendments is appended to the order following this opinion.

## **SUMMARY OF ADOPTED AMENDMENTS**

### **Federal Regulations Implemented**

During the three update periods included in this consolidated rulemaking, USEPA undertook nine actions regarding the NAAQS. The Board amends the Illinois ambient air quality standards in response to two of the actions in this consolidated docket.

The Board added an IIS-RA(F) in the docket for this rulemaking. Table 1 lists the USEPA revisions not made. The list states the reason for each omission. Table 2 lists the changes the Board makes to the literal text of USEPA's rules. Tables 3 and 4 relate to Board-initiated corrections and revisions discussed beginning on page 7 of this opinion. Table 5 lists the changes in the text of the proposed amendments made on this final adoption.

#### **October 16, 2018 (83 Fed. Reg. 52157)**

USEPA corrected the November 16, 2017 and June 4, 2018 area designations for the 2015 NAAQS for ozone (O<sub>3</sub>). USEPA omitted McHenry and Monroe Counties in Illinois on November 16, 2017 (82 Fed. Reg. 54232, 54243-45) and June 4, 2018 (83 Fed. Reg. 75776, 25801-04). USEPA corrected the omissions, designating both "attainment/unclassifiable."

The Board notes this USEPA action. No Board action is required based on USEPA's correction. Neither the 2008 nor the 2015 NAAQS for O<sub>3</sub> has a revocation clause. *See* 40 C.F.R. §§ 50.15 and 50.19 (2019).

#### **December 27, 2018 (83 Fed. Reg. 66631)**

USEPA redesignated all areas in Illinois, formerly designated unclassifiable, as unclassifiable/attainment for the 2012 primary annual average NAAQS for fine particulate matter (PM<sub>2.5</sub>).

The Board notes this USEPA action. No Board action is required based on USEPA's correction. Neither the 1997 nor the 2006 NAAQS for PM<sub>2.5</sub> has a revocation clause based on attainment of the 2012 NAAQS. *See* 40 C.F.R. §§ 50.7 and 50.13 (2019). *See* the discussion of USEPA's redesignating these areas as attainment for the 1997 NAAQS on May 28, 2019.

#### **March 18, 2019 (84 Fed. Reg. 9866)**

USEPA concluded after review to retain the existing 2010 primary NAAQS for sulfur dioxide (SO<sub>2</sub>). No Board action is required based on this USEPA action.

#### **March 29, 2019 (84 Fed. Reg. 11973)**

USEPA designated a new FEM for O<sub>3</sub> in ambient air. The Board must incorporate this method into the Illinois rules. USEPA's issuing an updated version of the *List of Designated Reference and Equivalent Methods* will allow the Board to incorporate that latest version by reference and obviate action on the March 29, 2019 designation individually.

**May 28, 2019 (84 Fed. Reg. 24395)**

USEPA redesignated the Metro East area<sup>1</sup> from nonattainment<sup>2</sup> to attainment for the 1997 primary and secondary NAAQS for PM<sub>2.5</sub>. The effect is that the 1997 primary annual average NAAQS for PM<sub>2.5</sub> no longer applies in any area in Illinois.

A USEPA revocation clause in the 2006 NAAQS for PM<sub>2.5</sub> provides that the 1997 primary NAAQS for PM<sub>2.5</sub> continued to apply in all areas until October 24, 2016,<sup>3</sup> After that date, the standard no longer applied to a specific area on the effective date of USEPA designating that area as attainment for the standard. 40 C.F.R. § 50.13(d) (2019). The effective date of the area redesignations was May 28, 2019.<sup>4</sup> As of that date, the 1997 primary annual average NAAQS for PM<sub>2.5</sub> no longer applies to any area in Illinois.

The Board must remove the 1997 primary annual average NAAQS for PM<sub>2.5</sub> from the Illinois rules. The 1997 secondary annual average and primary and secondary 24-hour NAAQS for PM<sub>2.5</sub> remain in effect.<sup>5</sup>

Effecting USEPA's intent is not straightforward. There is ambiguity in the federal rules. The revocation clause is appended to the 2006 NAAQS for PM<sub>2.5</sub> in 40 C.F.R. § 50.13, not the 1997 NAAQS for PM<sub>2.5</sub> in 40 C.F.R. § 50.7.

When incorporating the revocation clause into the Illinois rules, the Board observed this.<sup>6</sup> The Board proposed adding the revocation clause to the provision for the 1997 standard. Prompted by Agency comments, the Board incorporated the clause into both the 1997 and 2006 standards. The Agency convinced the Board that the 2006 primary annual average NAAQS for PM<sub>2.5</sub> is the 1997 primary annual average NAAQS for PM<sub>2.5</sub>.

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<sup>1</sup> Madison, Monroe, St. Clair Counties and the Baldwin Township portion of Randolph County.

<sup>2</sup> The Board corrects "attainment/unclassifiable" to "nonattainment" in response to PC 2, ¶ 7.

<sup>3</sup> The effective date of the implementation rule for the 2012 primary NAAQS for PM<sub>2.5</sub> in subpart Z of 40 C.F.R. 51. 40 C.F.R. § 50.13(d) (2019); *see* 81 Fed. Reg. 58010 (Aug. 24, 2016) (adopting the implementation rule and stating the October 24, 2016 effective date).

<sup>4</sup> 84 Fed. Reg. 24395 (May 28, 2019).

<sup>5</sup> 40 C.F.R. § 50.13(d) (2019).

<sup>6</sup> NAAQS Update, USEPA Amendments (July 1, 2016 through December 31, 2016, March 20, 2017, May 11, 2017, and June 16, 2017), R17-10 (Oct. 2017), slip. op. at 4-8.

The Board believes that removing the 1997 primary annual average NAAQS for PM<sub>2.5</sub> requires also removing 1997 primary annual NAAQS from the 2006 NAAQS for .PM<sub>2.5</sub>. Doing so requires amendments in both 35 Ill. Adm. Code 243.120(b) and (c).<sup>7</sup>

**May 28, 2019 (84 Fed. Reg. 24508)**

USEPA designated a new FRM for monitoring carbon monoxide in ambient air. The Board must incorporate this method into the Illinois rules. USEPA's issuing an updated version of the *List of Designated Reference and Equivalent Methods* will allow the Board to incorporate that latest version by reference and obviate action on the May 28, 2019 designation individually.

**August 23, 2019 (84 Fed. Reg. 44238)**

USEPA reclassified the Chicago-Naperville area from moderate to serious nonattainment for the 2008 primary and secondary NAAQS for O<sub>3</sub>. This action changes the state implementation plan (SIP) requirements and attainment deadline for this area, but it does not affect the NAAQS standards that apply and how they apply.<sup>8</sup> No Board action is required based on this USEPA action.

**September 13, 2019 (84 Fed. Reg. 48286)**

USEPA reconsidered its 2016 designation of Williamson County as nonattainment for the 2010 NAAQS for SO<sub>2</sub>.<sup>9</sup> The effective date of the reconsideration is October 15, 2019.<sup>10</sup> USEPA's reconsideration of the Williamson County area designation does not directly require Board action, but it does prompt Board action. The Board limits applicability of the 2010 NAAQS for SO<sub>2</sub> to Macon County.

The revocation clause for the 1971 primary annual average and 24-hour NAAQS for SO<sub>2</sub> provides that the 1971 NAAQS apply to an area until one year after the effective date of a USEPA area designation for the 2010 primary NAAQS for SO<sub>2</sub>. One year after those area designation dates for areas in Illinois varies from October 4, 2014 through April 9, 2019. The effective date of the recent reconsideration for Williamson County does not change the effective date of the earlier, operative, area designation as nonattainment; the revocation clause does not rely on designation as attainment for the 2010 standard.

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<sup>7</sup> Removing the elements corrects the error in the Board note to 35 Ill. Adm. Code 243.120(c) stating, "primary and secondary annual average NAAQS for PM<sub>2.5</sub> in this subsection (c) is the 1997 primary annual average NAAQS for PM<sub>2.5</sub>." The words "and secondary" were included in error.

<sup>8</sup> See subpart X of 40 C.F.R. 51 (2019).

<sup>9</sup> 81 Fed. Reg. 45039, 45047 (July 12, 2016).

<sup>10</sup> 84 Fed. Reg. at 48286.

The revocation clause further provides that the 1971 NAAQS for SO<sub>2</sub> will continue to apply after the date based on effective date of the area designation in any area that was designated nonattainment for the 1971 NAAQS on the August 22, 2010 effective date of the 2010 NAAQS.<sup>11</sup> There were no such nonattainment areas in Illinois on August 22, 2010.<sup>12</sup>

USEPA's reconsideration of the Williamson County area designation prompts the Board to further limit applicability of the 1971 primary annual average and one-hour NAAQS for SO<sub>2</sub> in Illinois. Since the Board last limited applicability of the 1971 NAAQS,<sup>13</sup> USEPA made additional area designations for the 2012 NAAQS for areas in Illinois.<sup>14</sup> It now appears that the only area that USEPA has not designated is Macon County. USEPA intends to make that area designation by the end of this year.<sup>15</sup>

The Board revises 35 Ill. Adm. Code 243.122(a) to limit applicability to Macon County. The Board note now explains that the Board will remove the 1971 NAAQS after 40 C.F.R. § 50.4 no longer applies in Macon County (one year after an area designation for Macon County under the 2010 NAAQS).

### **September 26, 2019 (84 Fed. Reg. 50833)**

USEPA designated a new FRM for monitoring nitrogen dioxide in ambient air. The Board must incorporate this method into the Illinois rules. USEPA's issuing an updated version of the *List of Designated Reference and Equivalent Methods* will allow the Board to incorporate that latest version by reference and obviate action on the September 26, 2019 designation individually.

### **December 15, 2019**

USEPA released an updated version of the *List of Designated Reference and Equivalent Methods*. This update version adds the FRMs and FEM that USEPA designated on March 29, 2019; May 28, 2019; and September 26, 2019. Updating the incorporation by reference in 35 Ill. Adm. Code 243.108 to this version of the *List* will incorporate those FRMs and FEM.

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<sup>11</sup> 40 C.F.R. § 50.4(e) (2019); *see* 75 Fed. Reg. 35520 (June 22, 2010).

<sup>12</sup> *See* 40 C.F.R. § 81.314 (2010) (table for Illinois SO<sub>2</sub>); *List of CFR Sections Affected*, August 2010 (no entry for 40 C.F.R. § 81.314).

<sup>13</sup> In NAAQS Update, USEPA Amendments (January 1, 2018 through June 30, 2018), R19-6 (Feb. 14, 2019), slip op. at 4-5.

<sup>14</sup> 83 Fed. Reg. 1098, 1119-21 (Jan. 9, 2018).

<sup>15</sup> *See* 40 C.F.R. § 81.314 (2019) (table for Illinois—2010 SO<sub>2</sub>, note 3).

### **Board-Initiated Corrections and Revisions**

The Board includes limited Board-initiated corrections and revisions with the USEPA amendments. JCAR suggested two of these corrections and revisions.<sup>16</sup> The rest originate from Board review of the text of the rules.

The Board finds that all of the Board-initiated corrections and revisions are needed.

Table 3 in the IIS-RA(F) lists these Board-initiated corrections and revisions. Table 4 lists corrections requested by JCAR that the Board declines to make. Each entry in Table 4 states reasons for not making the correction.

### **Requests for Comments**

The Board requested comments on the proposed amendments. The specific requests for comments and the Agency's responses are as follows:

1. Do USEPA area designations relating to O<sub>3</sub> NAAQS have any impact on the effect of any of the O<sub>3</sub> NAAQS? In PC 3, the Agency responded they do not.
2. Do USEPA's area designations for the 2012 NAAQS for PM<sub>2.5</sub> have any effect on the 1987 or 1997 NAAQS? In PC 3, the Agency responded they do not.
3. Does the Board appropriately remove the 1997 and 2006 primary annual average NAAQS for PM<sub>2.5</sub> from the Illinois rules? In PC 1, ¶ 3, the Agency responded that these NAAQS no longer apply to any area in Illinois.
4. Does the Board appropriately limit applicability of the 1971 primary annual average and 24-hour NAAQS for SO<sub>2</sub> from the Illinois rules? In PC 1, ¶ 4, the Agency responded that this NAAQS no longer applies in any area of Illinois outside Macon County. The Agency further agrees with the proposed edits to the Board note to 35 Ill. Adm. Code 243.122(a) prompted by JCAR comments in PC 1 and included in the adopted amendments.
5. Did the Board appropriately add the new FRMs and FEM into the Illinois rules? In PC 1, ¶ 5, the Agency responded that the Board incorporated the new methods.
6. Did the Board appropriately effect the JCAR-requested corrections and revisions? Agency PC 1, ¶ 6: No objection to corrections to the Board notes to 35 Ill. Adm. Code 243.120(b) and 243.126(a) made at JCAR's request and included in the proposed amendments.

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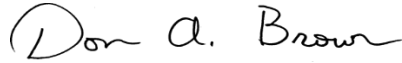
<sup>16</sup> In an October 3, 2013 letter that the Board received May 17, 2019 and added to the record in SDWA Update, USEPA Amendments (January 1, 2016 through June 30, 2016), R19-6 (Feb. 14, 2019) after conclusion of that rulemaking.

**ORDER**

The Board directs the Clerk to file these adopted amendments with the Office of the Secretary of State.

IT IS SO ORDERED.

I, Don A. Brown, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above order on August 13, 2020, by a vote of 4-0.

A handwritten signature in cursive script that reads "Don A. Brown". The signature is written in black ink and is positioned above a horizontal line.

Don A. Brown, Clerk  
Illinois Pollution Control Board



TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE B: AIR POLLUTION  
CHAPTER I: POLLUTION CONTROL BOARD  
SUBCHAPTER I: AIR QUALITY STANDARDS AND EPISODES

PART 243  
AIR QUALITY STANDARDS

SUBPART A: GENERAL PROVISIONS

Section	
243.101	Definitions
243.102	Scope
243.103	Applicability
243.104	Nondegradation (Repealed)
243.105	Air Quality Monitoring Data Influenced by Exceptional Events
243.106	Monitoring (Repealed)
243.107	Reference Conditions
243.108	Incorporations by Reference

SUBPART B: STANDARDS AND MEASUREMENT METHODS

Section	
243.120	PM <sub>10</sub> and PM <sub>2.5</sub>
243.121	Particulates (Repealed)
243.122	Sulfur Oxides (Sulfur Dioxide)
243.123	Carbon Monoxide
243.124	Nitrogen Oxides (Nitrogen Dioxide as Indicator)
243.125	Ozone
243.126	Lead
243.APPENDIX A	Rule into Section Table (Repealed)
243.APPENDIX B	Section into Rule Table (Repealed)
243.APPENDIX C	Past Compliance Dates (Repealed)
243.TABLE A	Schedule for Flagging and Documentation Submission for Data Influenced by Exceptional Events for Use in Initial Area Designations (Repealed)

**AUTHORITY:** Implementing Sections 7.2 and 10 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 10, and 27].

**SOURCE:** Adopted as Chapter 2: Air Pollution, Part III: Air Quality Standards, in R71-23, filed and effective April 14, 1972; amended in R80-11, at 6 Ill. Reg. 5804, effective April 22, 1982; amended in R82-12, at 7 Ill. Reg. 9906, effective August 18, 1983; codified at 7 Ill. Reg. 13630; amended in R91-35 at 16 Ill. Reg. 8185, effective May 15, 1992; amended in R09-19 at 35 Ill. Reg. 18857, effective October 25, 2011; amended in R13-11 at 37 Ill. Reg. 12882, effective July 29, 2013; amended in R14-6 at 37 Ill. Reg. 19848, effective November 27, 2013; amended in R14-16 at 38 Ill. Reg. 12900, effective June 9, 2014; amended in R15-4 at 39 Ill. Reg. 5434,

effective March 24, 2015; amended in R16-2 at 40 Ill. Reg. 4906, effective March 3, 2016; amended in R17-1 at 41 Ill. Reg. 1121, effective January 23, 2017; amended in R17-10 at 41 Ill. Reg. 13413, effective October 23, 2017; amended in R18-15 at 42 Ill. Reg. 9308, effective May 29, 2018; amended in R19-6 at 43 Ill. Reg. 3034, effective February 19, 2019; amended in R19-14/R20-3/R20-11 at 44 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

## SUBPART A: GENERAL PROVISIONS

### **Section 243.108 Incorporations by Reference**

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions:

Government Printing Office (GPO), 732 Capitol Street NW, Washington, DC 20401 (telephone: 202-512-1800 or 866-512-1800; website: [www.gpo.gov](http://www.gpo.gov)). The following documents incorporated by reference are available from this source:

Appendix A-1 to 40 CFR 50 ~~(2019)~~(2018) (Reference Measurement Principle and Calibration Procedure for the Measurement of Sulfur Dioxide in the Atmosphere (Ultraviolet Fluorescence Method)), referenced in Section 243.122.

Appendix A-2 to 40 CFR 50 ~~(2019)~~(2018) (Reference Method for the Determination of Sulfur Dioxide in the Atmosphere (Pararosaniline Method)), referenced in Section 243.122.

Appendix B to 40 CFR 50 ~~(2019)~~(2018) (Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High-Volume Method)), referenced in appendix G to 40 CFR 50 (see below).

Appendix C to 40 CFR 50 ~~(2019)~~(2018) (Reference Measurement Principle and Calibration Procedure for the Measurement of Carbon Monoxide in the Atmosphere (Non-Dispersive Infrared Photometry)), referenced in Section 243.123.

Appendix D to 40 CFR 50 ~~(2019)~~(2018) (Reference Measurement Principle and Calibration Procedure for the Measurement of Ozone in the Atmosphere), referenced in Section 243.125.

Appendix F to 40 CFR 50 ~~(2019)~~(2018) (Reference Measurement Principle and Calibration Procedure for the Measurement of Nitrogen Dioxide in the Atmosphere (Gas Phase Chemiluminescence)), referenced in Section 243.124.

Appendix G to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air), referenced in Section 243.126.

Appendix H to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Interpretation of the 1-Hour Primary and Secondary National Ambient Air Quality Standards for Ozone), referenced in Section 243.125.

Appendix I to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Interpretation of the 8-Hour Primary and Secondary National Ambient Air Quality Standards for Ozone), referenced in Section 243.125.

Appendix J to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Reference Method for the Determination of Particulate Matter as PM<sub>10</sub> in the Atmosphere), referenced in Section 243.120.

Appendix K to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Particulate Matter), referenced in Section 243.120.

Appendix L to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Reference Method for the Determination of Fine Particulate Matter as PM<sub>2.5</sub> in the Atmosphere), referenced in Section 243.120.

Appendix N to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Particulate Matter), referenced in Section 243.120.

Appendix O to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Reference Method for the Determination of Coarse Particulate Matter as PM<sub>10-2.5</sub> in the Atmosphere), referenced in appendix Q to 40 CFR 50 and for use in federally required monitoring by the NCore system pursuant to 40 CFR 58.

Appendix P to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone), referenced in Section 243.125.

Appendix Q to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Reference Method for the Determination of Lead in Particulate Matter as PM<sub>10</sub> Collected from Ambient Air), referenced in appendix R to 40 CFR 50.

Appendix R to 40 CFR 50 ~~(2019)~~~~(2018)~~ (Interpretation of the National Ambient Air Quality Standards for Lead), referenced in Section 243.126.

Appendix S to 40 CFR 50 ~~(2019)~~(2018) (Interpretation of the Primary National Ambient Air Quality Standards for Oxides of Nitrogen (Nitrogen Dioxide)), referenced in Section 243.124.

Appendix T to 40 CFR 50 ~~(2019)~~(2018) (Interpretation of the Primary National Ambient Air Quality Standards for Oxides of Sulfur (Sulfur Dioxide)), referenced in Section 243.122.

Appendix U to 40 CFR 50 ~~(2019)~~(2018) (Interpretation of the Primary National Ambient Air Quality Standards for Ozone), referenced in Section 243.125.

Clean Air Act, 42 USC 7401 et seq. ~~(2019)~~(2016) (for definitions of terms only), referenced in Section 243.102.

BOARD NOTE: Segments of the Code of Federal Regulations and the United States Code are available for free download as PDF documents from the GPO FDsys website: <http://www.gpo.gov/fdsys/>.

USEPA, National Exposure Research Laboratory, Human Exposure & Atmospheric Sciences Division (MD-D205-03), Research Triangle Park, NC 27711. The following documents incorporated by reference are available from this source:

“List of Designated Reference and Equivalent Methods” ~~(December 15, 2019)~~ ~~(June 15, 2018)~~ (referred to as the “List of Designated Methods” and referenced in Sections 243.101, 243.120, 243.122, 243.123, 243.124, 243.125, and 243.126.

BOARD NOTE: The List of Designated Methods is available for free download as a PDF document from the USEPA, Technology Transfer, Ambient Monitoring Technology Information Center website: <http://www.epa.gov/ttn/amtic/criteria.html>.

(Source: Amended at 44 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## SUBPART B: STANDARDS AND MEASUREMENT METHODS

### Section 243.120 PM<sub>10</sub> and PM<sub>2.5</sub>

- a) 1987 Primary and Secondary 24-Hour NAAQS for PM<sub>10</sub>
  - 1) The level of the 1987 primary and secondary 24-hour NAAQS for PM<sub>10</sub> is 150 µg/m<sup>3</sup>, 24-hour average concentration. The 1987 primary and secondary NAAQS for PM<sub>10</sub> is attained when the expected number of days per calendar year with a 24-hour average concentration above 150

$\mu\text{g}/\text{m}^3$ , as determined in accordance with appendix K to 40 CFR 50, incorporated by reference in Section 243.108, is equal to or less than one.

- 2) This subsection (a)(2) corresponds with 40 CFR 50.6(b), a provision marked “reserved” by USEPA. This statement maintains structural consistency with the corresponding federal regulation.
- 3) For the purpose of determining attainment of the 1987 primary and secondary 24-hour NAAQS for  $\text{PM}_{10}$ , particulate matter must be measured in the ambient air as  $\text{PM}_{10}$  by a method that fulfills either of the following requirements:
  - A) An FRM based on appendix J to 40 CFR 50, incorporated by reference in Section 243.108, and designated by USEPA and listed in List of Designated Methods, incorporated by reference in Section 243.108; or
  - B) An FEM designated by USEPA and listed in List of Designated Methods, incorporated by reference in Section 243.108.

BOARD NOTE: This subsection (a) is derived from 40 CFR 50.6. ~~USEPA adopted 1997 primary NAAQS for  $\text{PM}_{10}$  at 62 Fed. Reg. 38652 (July 18, 1997). As a result of a judicial vacatur, USEPA later removed the transitional provision relative to the 1987 NAAQS at 65 Fed. Reg. 80776 (Dec. 22, 2000) and the 1997 NAAQS at 69 Fed. Reg. 45595 (July 30, 2004). Thus, the 1987 primary and secondary NAAQS for  $\text{PM}_{10}$  are included in this subsection (a).~~

- b) ~~1997 Primary and Secondary Annual Average and Primary and Secondary 24-Hour NAAQS for  $\text{PM}_{2.5}$~~ 
  - 1) The 1997 ~~primary and secondary~~ annual average NAAQS for  $\text{PM}_{2.5}$  is  $15.0 \mu\text{g}/\text{m}^3$ , annual arithmetic mean concentration, and the 1997 primary and secondary 24-hour NAAQS for  $\text{PM}_{2.5}$  is  $65 \mu\text{g}/\text{m}^3$ , 24-hour average concentration, measured in the ambient air as  $\text{PM}_{2.5}$  by a method that fulfills either of the following requirements:
    - A) An FRM based on appendix L of 40 CFR 50, incorporated by reference in Section 243.108, and designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108; or
    - B) An FEM designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108.
  - 2) The 1997 ~~primary and secondary~~ annual average NAAQS for  $\text{PM}_{2.5}$  is met when the annual arithmetic mean concentration, as determined in

accordance with appendix N of 40 CFR 50, incorporated by reference in Section 243.108, is less than or equal to 15.0  $\mu\text{g}/\text{m}^3$ .

- 3) The 1997 primary and secondary 24-hour NAAQS for  $\text{PM}_{2.5}$  is met when the 98th percentile 24-hour concentration, as determined in accordance with appendix N of 40 CFR 50, incorporated by reference in Section 243.108, is less than or equal to 65  $\mu\text{g}/\text{m}^3$ .
- 4) ~~The 1997 primary annual  $\text{PM}_{2.5}$  NAAQS in this subsection (b) does not apply in any area of Illinois except Madison, Monroe, and St. Clair Counties and the Baldwin Village area of Randolph County. The primary NAAQS for  $\text{PM}_{2.5}$  in this subsection (b) will no longer apply in any area of Illinois after USEPA has redesignated that area as attainment for that standard. The 1997 secondary annual NAAQS for  $\text{PM}_{2.5}$  and the 1997 24-hour  $\text{PM}_{2.5}$  NAAQS in this subsection (b) remain applicable.~~

~~BOARD NOTE: USEPA has codified the area designations for Illinois in 40 CFR 81.314. All areas of Illinois were designated attainment or unclassifiable/attainment except Madison, Monroe, and St. Clair Counties and the Baldwin Village area of Randolph County.~~

~~BOARD NOTE: This subsection (b) is derived from 40 CFR 50.7, and 50.13(d). The Board added the revocation clause of 40 CFR 50.13(d) as both this subsections (b)(4) and (c)(4), even though USEPA did not add the text to corresponding 40 CFR 50.7.~~

- c) ~~2006 Primary and Secondary Annual Average and Primary and Secondary 24-Hour NAAQS for  $\text{PM}_{2.5}$~~ 
  - 1) ~~The 2006 primary and secondary annual average NAAQS for  $\text{PM}_{2.5}$  is 15.0  $\mu\text{g}/\text{m}^3$ , annual arithmetic mean concentration, and the 2006 primary and secondary 24-hour NAAQS for  $\text{PM}_{2.5}$  is 35  $\mu\text{g}/\text{m}^3$ , 24-hour average concentration, measured in the ambient air as  $\text{PM}_{2.5}$  by a method that fulfills either of the following requirements:~~
    - A) ~~An FRM based on appendix L of 40 CFR 50, incorporated by reference in Section 243.108, and designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108; or~~
    - B) ~~An FEM designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108.~~
  - 2) ~~The 2006 primary and secondary annual average NAAQS for  $\text{PM}_{2.5}$  is met when the annual arithmetic mean concentration, as determined in~~

accordance with appendix N of 40 CFR 50, incorporated by reference in Section 243.108, is less than or equal to 15.0  $\mu\text{g}/\text{m}^3$ .

- 3) The 2006 primary and secondary 24-hour NAAQS for  $\text{PM}_{2.5}$  is met when the 98th percentile 24-hour concentration, as determined in accordance with appendix N of 40 CFR 50, incorporated by reference in Section 243.108, is less than or equal to 35  $\mu\text{g}/\text{m}^3$ .
- 4) ~~The primary annual  $\text{PM}_{2.5}$  NAAQS in this subsection (c) does not apply in any area of Illinois except Madison, Monroe, and St. Clair Counties and the Baldwin Village area of Randolph County. The primary annual  $\text{PM}_{2.5}$  NAAQS in this subsection (c) will no longer apply in any area of Illinois after USEPA has redesignated that area as attainment for that standard. The secondary annual  $\text{PM}_{2.5}$  NAAQS in this subsection (c) remains applicable.~~

~~BOARD NOTE: USEPA has codified the area designations for Illinois in 40 CFR 81.314. All areas of Illinois were designated attainment or unclassifiable/attainment except Madison, Monroe, and St. Clair Counties and the Baldwin Village area of Randolph County.~~

~~BOARD NOTE: The primary and secondary annual average NAAQS for  $\text{PM}_{2.5}$  in this subsection (c) is the 1997 primary annual average NAAQS for  $\text{PM}_{2.5}$ . USEPA retained the standard and included it with the 2006 standard in corresponding 40 CFR 50.13. See 71 Fed. Reg. 61144, 61176 (Oct. 17, 2006). This subsection (c) is derived from 40 CFR 50.13.~~

- d) 2012 Primary Annual Average and 24-Hour NAAQS for  $\text{PM}_{2.5}$ 
  - 1) The 2012 primary annual average NAAQS for  $\text{PM}_{2.5}$  is 12.0  $\mu\text{g}/\text{m}^3$  annual arithmetic mean concentration, and the 2012 primary 24-hour NAAQS for  $\text{PM}_{2.5}$  is 35  $\mu\text{g}/\text{m}^3$  24-hour average concentration, measured in the ambient air as  $\text{PM}_{2.5}$  by a method that fulfills either of the following requirements:
    - A) An FRM based on appendix L of 40 CFR 50, incorporated by reference in Section 243.108, and designated by USEPA and listed in List of Designated Methods, incorporated by reference in Section 243.108; or
    - B) An FEM designated by USEPA and listed in List of Designated Methods, incorporated by reference in Section 243.108.
  - 2) The 2012 primary annual NAAQS for  $\text{PM}_{2.5}$  is met when the annual arithmetic mean concentration, as determined in accordance with appendix N of 40 CFR 50, incorporated by reference in Section 243.108, is less than or equal to 12.0  $\mu\text{g}/\text{m}^3$ .

- 3) The 2012 primary 24-hour NAAQS for PM<sub>2.5</sub> is met when the 98th percentile 24-hour concentration, as determined in accordance with appendix N of 40 CFR 50, incorporated by reference in Section 243.108, is less than or equal to 35 µg/m<sup>3</sup>.

BOARD NOTE: This subsection (d) is derived from 40 CFR 50.18.

(Source: Amended at 44 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 243.122 Sulfur Oxides (Sulfur Dioxide)**

- a) ~~This~~ 1971 Primary Annual Average and 24-Hour NAAQS for Sulfur Oxides (as Sulfur Dioxide (SO<sub>2</sub>))
  - 1) The level of the 1971 primary annual average NAAQS for sulfur oxides is 0.030 ppm, not to be exceeded in a calendar year. The annual arithmetic mean must be rounded to three decimal places (fractional parts equal to or greater than 0.0005 ppm must be rounded up).
  - 2) The level of the 1971 primary 24-hour NAAQS for sulfur oxides is 0.14 ppm, not to be exceeded more than once per calendar year. The 24-hour averages must be determined from successive non-overlapping 24-hour blocks starting at midnight each calendar day and must be rounded to two decimal places (fractional parts equal to or greater than 0.005 ppm must be rounded up).
  - 3) Sulfur oxides must be measured in the ambient air as SO<sub>2</sub> by the FRM described in appendix A-2 to 40 CFR 50, incorporated by reference in Section 243.108, or by an FEM designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108.
  - 4) To demonstrate attainment, the annual arithmetic mean and the second-highest 24-hour averages must be based upon hourly data that are at least 75 percent complete in each calendar quarter. A 24-hour block average must be considered valid if at least 75 percent of the hourly averages for the 24-hour period are available. In the event that only 18-, 19-, 20-, 21-, 22-, or 23-hour averages are available, the 24-hour block average must be computed as the sum of the available hourly averages using the number of hours (i.e., 18, 19, etc.) as the divisor. If less than 18-hour averages are available, but the 24-hour average would exceed the level of the standard when zeros are substituted for the missing values, subject to the rounding rule of subsection (b) of this Section, this must be considered a valid 24-hour average. In this case, the 24-hour block average must be computed as the sum of the available hourly averages divided by 24.



- 5) The 1971 primary annual average and 24-hour NAAQS for sulfur oxides set forth in this subsection (a) apply only in Macon County. ~~remains applicable to all areas notwithstanding the promulgation of the 2010 primary one-hour NAAQS for sulfur oxides in subsection (c) of this Section. The Board will delete the 1971 primary annual average and 24-hour NAAQS for sulfur oxides set forth in this subsection (a) fulfillment of the conditions recited by USEPA in corresponding 40 CFR 50.4(c).~~

BOARD NOTE: Derived This subsection (a) is derived from 40 CFR 50.4. This subsection (a) no longer applies in any area of the following areas in Illinois outside Macon County. The Board will delete the 1971 primary annual average and 24-hour NAAQS for sulfur oxides set forth in this subsection (a) after 40 CFR 50.4 no longer applies: one year after the effective date of a USEPA area designation for Macon County.: Cook County (Lemont Township only), Peoria County (Hollis Township only), Tazewell County (Cincinnati and Pekin Townships only), Will County (DuPage and Lockport Townships only), Bureau County, Jasper County, Madison County (Wood River Township, an area of southeastern Alton Township, and an area of northern Chouteau Township only), Massac County, Putnam County, and Williamson County.

- b) 1971 Secondary Three-Hour NAAQS for Sulfur Oxides (as SO<sub>2</sub>)
  - 1) The level of the 1971 secondary three-hour NAAQS for sulfur oxides is 0.5 ppm, not to be exceeded more than once per calendar year. The three-hour averages must be determined from successive non-overlapping three-hour blocks starting at midnight each calendar day and must be rounded to one decimal place (fractional parts equal to or greater than 0.05 ppm must be rounded up).
  - 2) Sulfur oxides must be measured in the ambient air as SO<sub>2</sub> by the FRM described in appendix A-2 to 40 CFR 50, incorporated by reference in Section 243.108, or by an FEM designated by USEPA and listed in List of Designated Methods, incorporated by reference in Section 243.108.
  - 3) To demonstrate attainment, the second-highest three-hour average must be based upon hourly data that are at least 75 percent complete in each calendar quarter. A three-hour block average must be considered valid only if all three hourly averages for the three-hour period are available. If only one or two hourly averages are available, but the three-hour average would exceed the level of the standard when zeros are substituted for the missing values, subject to the rounding rule of subsection (b)(1), this must be considered a valid three-hour average. In all cases, the three-hour block average must be computed as the sum of the hourly averages divided by three.

BOARD NOTE: This subsection (b) is derived from 40 CFR 50.5.

- c) 2010 Primary One-Hour NAAQS for Sulfur Oxides (as SO<sub>2</sub>)
- 1) The level of the 2010 primary one-hour NAAQS for sulfur oxides is 75 ppb, measured in the ambient air as SO<sub>2</sub>.
  - 2) The 2010 one-hour primary NAAQS for sulfur oxides is met at an ambient air quality monitoring site when the three-year average of the annual (99th percentile) of the daily maximum one-hour average concentrations is less than or equal to 75 ppb, as determined in accordance with appendix T of 40 CFR 50, incorporated by reference in Section 243.108.
  - 3) The level of the 2010 one-hour primary NAAQS for sulfur oxides must be measured by an FRM based on appendix A-1 or A-2 of 40 CFR 50, incorporated by reference in Section 243.108, or by an FEM designated by USEPA and listed in List of Designated Methods, incorporated by reference in Section 243.108.

BOARD NOTE: This subsection (c) is derived from 40 CFR 50.17. The 1971 primary NAAQS for SO<sub>2</sub> remains in effect until the federal conditions of 40 CFR 50.4(e) have been fulfilled, as outlined in subsection (a)(5) and the appended Board note.

(Source: Amended at 44 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 243.123 Carbon Monoxide**

- a) The 1971 eight-hour and one-hour primary NAAQS for carbon monoxide are as follows:
- 1) An eight-hour average concentration of 9 ppm (10 mg/m<sup>3</sup>), not to be exceeded more than once per year; and
  - 2) A one-hour average concentration of 35 ppm (40 mg/m<sup>3</sup>), not to be exceeded more than once per year.
- b) The levels of carbon monoxide in the ambient air must be measured by a method that fulfills either of the following requirements:
- 1) An FRM based on appendix C of 40 CFR 50, incorporated by reference in Section 243.108, and designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108; or
  - 2) An FEM designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108.

- c) An eight-hour average concentration must be considered valid if at least 75 percent of the hourly average for the eight-hour period is available. In the event that only six-hour (or seven-hour) averages are available, the eight-hour average must be computed on the basis of the hours available using six (or seven) as the divisor.
- d) When summarizing data for comparison with the standards, averages must be stated to one decimal place. Comparison of the data with the levels of the standards in ppm must be made in terms of integers with fractional parts of 0.5 or greater rounded up.

BOARD NOTE: Derived ~~This Section is derived~~ from 40 CFR 50.8-(2012).

(Source: Amended at 44 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 243.124 Nitrogen Oxides (Nitrogen Dioxide as Indicator)**

- a) The level of the 1971 primary annual average NAAQS for nitrogen oxides is 53 ppb, annual average concentration, measured in the ambient air as nitrogen dioxide (NO<sub>2</sub>).
- b) The level of the 2010 primary one-hour NAAQS for nitrogen oxides is 100 ppb, one-hour average concentration, measured in the ambient air as NO<sub>2</sub>.
- c) The level of the 1971 secondary annual average NAAQS for nitrogen oxides is 0.053 ppm (100 µg/m<sup>3</sup>), annual arithmetic mean concentration, measured in the ambient air as NO<sub>2</sub>.
- d) The levels of the standards in subsections (a) through (c) of this Section must be measured by:
  - 1) An FRM based on appendix F to 40 CFR 50, incorporated by reference in Section 243.108, and designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108; or
  - 2) By an FEM designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108.
- e) The 1971 primary annual average NAAQS for nitrogen oxides in subsection (a) of this Section is met when the annual average concentration in a calendar year is less than or equal to 53 ppb, as determined in accordance with appendix S of 40 CFR 50, incorporated by reference in Section 243.108, for the annual standard.
- f) The 2010 one-hour primary NAAQS for nitrogen oxides in subsection (b) of this Section is met when the three-year average of the annual 98th percentile of the daily maximum one-hour average concentration is less than or equal to 100 ppb,

as determined in accordance with appendix S of 40 CFR 50, incorporated by reference in Section 243.108, for the 1-hour standard.

- g) The 1971 secondary annual average NAAQS for nitrogen oxides in subsection (c) of this Section is attained when the annual arithmetic mean concentration in a calendar year is less than or equal to 0.053 ppm, rounded to three decimal places (fractional parts equal to or greater than 0.0005 ppm must be rounded up). 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.

BOARD NOTE: ~~Derived This Section is derived~~ from 40 CFR 50.11-(2012).

(Source: Amended at 44 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 243.126 Lead**

- a) 1978 Primary and Secondary Quarterly Average NAAQS for Lead

BOARD NOTE: ~~Derived This subsection (a) is derived~~ from 40 CFR 50.12. USEPA designated Granite City as nonattainment with the 2008 primary and secondary three-month average NAAQS for lead effective December 31, 2010 ~~2011~~ and an area of Chicago effective December 31, 2011-2012. See 76 Fed. Reg. 72097, 79108 (Nov. 22, 2011); 75 ~~Fed. Reg.~~ Fed. Reg. 71033, 71042 (Nov. 22, 2010). Thus, this subsection (a) was obsolete on December 31, 2012, and the Board removed it.

- b) 2008 Primary and Secondary Three-Month Average NAAQS for Lead

- 1) The 2008 primary and secondary three-month average NAAQS for lead and its compounds is 0.15  $\mu\text{g}/\text{m}^3$ , arithmetic mean concentration over a three-month period, measured in the ambient air as lead by either of the following:

- A) An FRM based on appendix G of 40 CFR 50, incorporated by reference in Section 243.108, and designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108; or
- B) An FEM designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108.

- 2) The 2008 primary and secondary three-month average NAAQS for lead are met when the maximum arithmetic three-month mean concentration for a three-year period, as determined in accordance with appendix R of

40 CFR 50, incorporated by reference in Section 243.108, is less than or equal to  $0.15 \mu\text{g}/\text{m}^3$ .

BOARD NOTE: Derived ~~This Section is derived~~ from 40 CFR 50.16.

(Source: Amended at 44 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)