ILLINOIS POLLUTION CONTROL BOARD November 21, 2013

IN THE MATTER OF:)	
NATIONAL AMBIENT AIR QUALITY) R14-6	
STANDARDS, USEPA AMENDMENTS) (Identical-in-Substance Rulemaking - A	Air)
(January 1, 2013 through June 30, 2012,)	
July 3, 2013, and August 5, 2013))	

Adopted Rule. Final Order.

OPINION AND ORDER OF THE BOARD (by J.A. Burke):

This rulemaking updates the ambient air quality standards in the Board's air pollution regulations (35 Ill. Adm. Code 243) to include revisions to the National Ambient Air Quality Standards (NAAQS)¹ adopted by the United States Environmental Protection Agency (USEPA) pursuant to section 109 of the Clean Air Act (CAA) (42 U.S.C. § 7409 (2011)) during the period January 1, 2013 through June 30, 2013 and on July 3, 2013 and August 5, 2013. Today's action adopts the first update to the initial amendments undertaken by the Board to fulfill a new identical-in-substance mandate adopted in P.A. 97-945 (eff. Aug. 10, 2012) to ensure that Illinois' regulations reflect USEPA's most recent NAAQS. The Board adopted the initial amendments in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013), which were effective on July 29, 2013. See 37 Ill. Reg. 12882 (Aug. 9, 2013).

Today the Board adopts amendments to segments of the Illinois ambient air quality standards to reflect revisions and USEPA actions that affect the federal NAAQS codified in 40 C.F.R. 50. As explained below, the Board intends the Illinois ambient air quality standards adopted in this proceeding to be identical-in-substance with their federal counterparts, as "identical-in-substance" is defined by Section 7.2(a) of the Environmental Protection Act (Act) (415 ILCS 5/7.2(a) (2012)).

Section 10(H) of the Act (415 ILCS 5/10(H), as added by P.A. 97-945 (eff. Aug. 10, 2012)), mandates this rulemaking requiring the Board to "adopt ambient air quality standards specifying the maximum permissible short-term and long-term concentrations of various contaminants in the atmosphere; those standards shall be identical in substance to the national ambient air quality standards promulgated by . . . the United States Environmental Protection Agency in accordance with Section 109 of the Clean Air Act [(42 U.S.C. § 7409)]." 415 ILCS 5/10(H). In addition, Section 9.1(e) of the Act requires the Board to conduct this rulemaking pursuant to Section 7.2(b) of the Act (415 ILCS 5/7.2(b) (2012)) for adopting rules that are "identical in substance" to the federal requirements.

Section 10(H) of the Act (415 ILCS 5/10(H) (2012)) and Section 1-5(c)(1) of the Administrative Procedure Act (APA) (5 ILCS 100/5-1-5(c)(1) (2012)) also provide that Title VII

¹ Throughout this opinion and in the regulatory text, the Board uses the abbreviation "NAAQS" to refer to a single standard and "NAAQS" to refer to multiple standards.

of the Act and Section 5-35 of the APA (5 ILCS 100/5-35 (2012)) do not apply to this proceeding. Accordingly, the Board did not adopt a "First Notice" proposal, or a "Second Notice" proposal for review by the Joint Committee on Administrative Rules (JCAR). However, as provided in Section 10(H) of the Act, and as explained in the two following segments of this opinion and order, the Board, did provide notice of the rulemaking proposal in the *Illinois Register* before adopting the amendments, held one public hearing on the proposal as required by the federal Clean Air Act (33 U.S.C. § 7410(a) (2011)), and allowed for public comment.

The Board reserved this docket to accommodate amendments that are necessary to update the Illinois ambient air quality standards to reflect revisions and USEPA actions that affect the federal NAAQS during the period January 1, 2013 through June 30, 2013. For reasons explained below, the Board has included amendments to accommodate USEPA actions that occurred on July 3, 2013 and August 5, 2013. Board action is necessary to amend the Illinois ambient air quality standards to conform with the NAAQS adopted and amended by USEPA.

PUBLIC COMMENTS

The Board adopted a proposal for public comment in this proceeding on September 5, 2013. A Notice of Proposed Amendments appeared in the September 20, 2013 issue of the *Illinois Register*, at 37 Ill. Reg. 15314. The Board held a public hearing in this matter on October 31, 2013 and received public comment on the proposal until November 4, 2013 (45 days after the date of *Illinois Register* publication.

Agency personnel attended the public hearing, but did not present testimony or comments. The Illinois Environmental Regulatory Group (IERG) submitted a public comment in support of adoption of the amendments as proposed. That comment is described as follows:

PC 1 "First Notice Comments of the Illinois Environmental Regulatory Group," September 27, 2013, by Alec M. Davis, General Counsel, IERG.

The Board also received a document from JCAR that indicates a limited number of revisions that JCAR has suggested in the text. The Board has revised the text in response to some of the JCAR suggestions and has declined to follow others. Table 4 below (beginning on page 21) indicates the suggestions that the Board has followed. Table 5 (beginning on page 22) explains the suggestions that the Board has declined.

FEDERALLY REQUIRED PUBLIC HEARING

The Board expects that the Illinois Environmental Protection Agency (Agency) will submit the present amendments as a revision to the Illinois State Implementation Plan (SIP) for various contaminants pursuant to section 110 of the federal Clean Air Act (42 U.S.C. § 7410(a) (2011) and the implementing USEPA regulations. *See* 40 C.F.R. 51.102 and appendix V (2012).

As authorized by 415 ILCS 5/9.1(e), the Board held a public hearing on October 31, 2013. This was to allow interested members of the public to comment on the proposed amendments and the anticipated SIP revision that will result from their adoption. The Board simultaneously conducted the hearing via teleconference at Chicago and Springfield, so that persons at both locations may freely participate in the proceedings.

The record in this docket includes all documents pertaining to this proceeding. All documents in the record are publicly available for inspection and copying as provided in 2 Ill. Adm. Code 2175 (2012). The documents are also freely available online at the Board's webpage: www.ipcb.state.il.us.

The record does not include a copy of the following documents, which are all otherwise publicly available:

- The *Federal Register* notice relating to this action (referenced elsewhere in this opinion and order);
- Federal statutes and regulations referenced in this opinion and order; and
- Illinois statutes and regulations referenced in this opinion and order.

OVERVIEW OF THE FEDERAL NAAQS AND THIS PROCEEDING

The amendments adopted today are intended to make the Illinois ambient air quality standards identical-in-substance to the NAAQS adopted by USEPA. Today's adopted amendments include USEPA revisions and ancillary actions, such as USEPA approvals of reference methods and equivalent methods, during the period January 1, 2013 through June 30, 2013. The Board included later federal actions that occurred on July 3, 2013 and August 5, 2013, as described below.

Docket R14-6: January 1, 2013 through June 30, 2013 Amendments

USEPA amended the federal NAAQS once during the period January 1, 2013 through June 30, 2013. In addition to the amendments to the NAAQS, USEPA updated the document "List of Designated Reference and Equivalent Methods" (List of Designated Methods) on June 27, 2013. The List of Designated Methods is essential to implementation of the NAAQS. Board action is required on both USEPA actions, as is summarized below:

<u>January 15, 2013 (78 Fed. Reg. 3086): Adoption of new 2012 Primary 24-Hour and Annual Average NAAQS for PM_{2.5}</u>

<u>Description of the USEPA action</u>: USEPA adopted the new 2012 primary 24-hour and annual average NAAQS for $PM_{2.5}$. USEPA further revised the interpretation of the NAAQS for $PM_{2.5}$.

<u>Prospective necessary Board action in response</u>: The Board must incorporate the new NAAQS and revised interpretation into 35 Ill. Adm. Code 243.

June 27, 2013: Update to the List of Designated Methods

<u>Description of the USEPA action</u>: USEPA updated the "List of Designated Reference and Equivalent Methods."

<u>Prospective necessary Board action in response</u>: The Board must update the incorporation by reference to this new version of the List.

Later USEPA NAAQS-Related Actions of Interest

The Board engages in ongoing monitoring of federal actions. As of the date of this opinion and accompanying order, the Board has identified two USEPA actions since June 30, 2013 that further affected the NAAQS in a way that would require Board attention. The Board believes that expedited consideration of these USEPA actions would confer two benefits: (1) expedited consideration could aid implementation of the Illinois ambient air quality standards; (2) expedited consideration could obviate action in the next NAAQS update for the period July 1, 2013 through December 31, 2013. The two later USEPA actions are the following:

July 3, 2013 (78 Fed. Reg. 40000): New FRM for Lead in Total Suspended Particulate Matter

<u>Description of the USEPA action</u>: USEPA amended appendix G to 40 C.F.R. 50 to establish a new FRM for measuring lead in total suspended particulate matter for the purposes of the lead NAAQS.

<u>Prospective necessary Board action in response</u>: The Board should update the incorporation by reference to appendix G in Section 243.108 by adding a *Federal Register* citation to this action to incorporate the changes into the Illinois regulations.

<u>August 5, 2013 (78 Fed. Reg. 47191): Area Designations for Two Areas in Illinois</u> <u>Under the 2010 Primary Annual Average and 24-Hour NAAQS for Sulfur Oxides</u>

<u>Description of the USEPA action</u>: USEPA made area designations for the 2010 NAAQS for sulfur dioxide.

<u>Prospective necessary Board action in response</u>: The Board should outline that this action does not impact the continued viability of the 1971 annual average and 24-hour primary NAAQS for sulfur oxides. The Board must modify the Board note appended to 35 Ill. Adm. Code 243.122(a)(5), which states that USEPA has not designated areas for the 2010 NAAQS and mentions a 2011 Agency recommendation for area designations.

Summary Listing of the Federal Actions

Upon Which Action is Required in This Docket

Based on the foregoing, the two federal actions that form the basis for Board action in this update docket are the following, listed in chronological order:

Federal Action Date (citation)	Description of the Action
January 15, 2013 (78 Fed. Reg. 3086)	New 2012 Primary 24-Hour and Annual Average NAAQS for PM _{2.5}

June 27, 2013	Update to the List of Designated Methods
July 3, 2013 (78 Fed. Reg. 40000)	New FRM for Lead
August 5, 2013 (78 Fed. Reg. 47191)	Two Area Designations in Illinois Under the 1971 Primary Annual Average and 24-Hour NAAQS for Sulfur Oxides

The Context of This Identical-in-Substance Proceeding

The Board does not engage in substantive review of federal standards in the context of an identical-in-substance proceeding. Rather, the Board reviews federal standards only to the extent necessary to make a "best fit" for those standards in the context of the Illinois regulatory scheme.

The Board tries to follow the structure and content of federal regulations where possible. This ensures the full incorporation of all necessary elements of the present federal standards, and it makes updating the regulations easier when future federal amendments occur.

Departures from the federal structure may occur for a variety of reasons and will be noted as needed below. Where more stringent pre-existing State standards exist that will continue in effect after incorporation of federal elements, the Board will incorporate a structure that retains those State standards. *See, e.g.*, RCRA Subtitle D Amendments (Amendments to 35 III. Adm. Code 810, 811, and 814), R93-10 (Sept. 15, 1993), slip op. at 3-5 (adding required federal elements into existing State regulations); Safe Drinking Water Act Regulations, R88-26 (Aug. 9, 1990), slip op. at 6-7 (retaining more stringent pre-existing State regulations within the body of new federal requirements).

DISCUSSION

The following discussion begins with substantive discussions of the four USEPA actions involved in this docket. A very brief discussion of the limited Board-initiated corrections and clarifying amendments follows the discussion of USEPA actions. The discussion of USEPA actions is organized in chronological order. The discussions conclude with a description of the types of deviations that the Board makes from the literal text of federal regulations in adopting identical-in-substance rules.

Discussion of the Particular Federal Actions Involved in This Docket

New 2012 Primary 24-Hour and Annual Average NAAQS for PM_{2.5}—Section 243.120

On January 15, 2013 (78 Fed. Reg. 3086), USEPA adopted new ambient air quality standards for fine particulate matter as 40 C.F.R. 50.18. These are an annual average standard of 12 micrograms per cubic meter (mg/m³) and a 24-hour average standard of 35 mg/m³. USEPA further revised appendix N to 40 C.F.R. 50, which is entitled "Interpretation of the National

Ambient Air Quality Standards for PM_{2.5}." The Interpretation sets forth the data handling and computational requirements needed to demonstrate compliance with the PM_{2.5} standards.

The addition of 40 C.F.R. 50.18 did not remove any of the existing particulate matter standards of 40 C.F.R. 50.6 (the 1987 primary and secondary 24-hour NAAQS for PM_{10}), 50.7 (the 1997 primary and secondary annual average and 24-hour NAAQS for $PM_{2.5}$), or 50.13 (the 2006 primary and secondary annual average and 24-hour NAAQS for $PM_{2.5}$). Thus, the federal regulations now include one NAAQS for PM_{10} , three annual average NAAQS for $PM_{2.5}$, and three 24-hour NAAQS for $PM_{2.5}$, as follows

- 1987 Primary and Secondary 24-Hour NAAQS for PM_{10} : 150 μ g/m³, 24-hour average concentration
- 1997 Primary and Secondary Annual Average NAAQS for $PM_{2.5}$: 15.0 $\mu g/m^3$, annual arithmetic mean concentration, averaged over three years
- 1997 Primary and Secondary 24-Hour NAAQS for $PM_{2.5}$: 65 $\mu g/m^3$, 24-hour average concentration, 98th percentile, averaged over three years
- 2006 Primary and Secondary Annual Average NAAQS for $PM_{2.5}$: 15.0 $\mu g/m^3$, annual arithmetic mean concentration, averaged over three years
- 2006 Primary and Secondary 24-Hour NAAQS for PM_{2.5}: $35~\mu g/m^3$, 24-hour average concentration, 98th percentile, averaged over three years
- 2012 Primary Annual Average NAAQS for PM_{2.5}:
 12.0 µg/m³ annual arithmetic mean concentration, averaged over three years

The 1987 NAAQS for PM_{10} is independent of the $PM_{2.5}$ standards, as are the annual $PM_{2.5}$ standards from the 24-hour standards. Thus, after the 1997 institution of the $PM_{2.5}$ standards, the 2006 NAAQS revised the 24-hour standard downward, leaving the annual average standard unaffected. The 2012 NAAQS has now revised the primary annual average standard downward, leaving the 1997 secondary annual average NAAQS and the 2006 primary and

² USEPA adopted 24-hour and annual average standards for PM₁₀ in 1997 and 2006, but subsequently removed these standards. *See* 71 Fed. Reg. 61224 (Oct. 17, 2006) (removing the 1987 annual average NAAQS for PM₁₀); 69 Fed. Reg. 45592 (July 30, 2004) (removing the 1997 primary and secondary annual average and 24-hour NAAQS for PM₁₀); 62 Fed. Reg. 38652 (July 18, 1997) (adopting the 1997 primary and secondary annual average and 24-hour NAAQS for

 $PM_{2.5}$

17, 2006).

³ USEPA did not revise the numerical standard, but did revise the data handling and calculations requirements in appendices D and N to 40 C.F.R. 50. *See* 71 Fed. Reg. 61144, 61165-66 (Oct.

secondary 24-hour NAAQS unchanged.⁴ The USEPA PM NAAQS webpage lists the following four NAAQS as the current effective standards (even though all seven of the above PM NAAQS remain codified)⁵:

2012 Primary Annual Average NAAQS for $PM_{2.5}$ 35 $\mu g/m^3$ 24-hour average concentration, 98th percentile, averaged over three years

1997 Secondary Annual Average NAAQS for $PM_{2.5}$ 15.0 $\mu g/m^3$, annual arithmetic mean concentration, averaged over three years

2006 Primary and Secondary 24-Hour NAAQS for $PM_{2.5}$ 35 $\mu g/m^3$, 24-hour average concentration, 98th percentile, averaged over three years

1987 Primary and Secondary 24-Hour NAAQS for PM_{10} 150 $\mu g/m^3$, 24-hour average concentration

Any person interested in the substance of the 2012 primary annual average and 24-hour NAAQS for PM_{2.5} should refer to the January 15, 2015 *Federal Register* discussion that accompanied the USEPA amendments. Alternatively, interested persons could contact USEPA as directed in the *Federal Register* notice.

The Board has incorporated the 2012 primary NAAQS for PM_{2.5} without substantive changes. Nevertheless, the Board has found a very limited number of minor revisions to the federal text necessary. The primary revisions involve (1) codification of the 2012 standards as subsection (d) in Section 243.120, a centralized provision that includes all of the PM standards, rather than codification in a separate provision; (2) revising the language to the standardized nomenclature, "2012 primary annual average NAAQS for PM_{2.5}" and "primary 24-hour NAAQS for PM_{2.5}" in the text; and (3) updating the incorporation by reference to appendix N to 40 C.F.R. 50, rather than amending substantive language, since the requirements of appendix N are incorporated by reference in the Illinois rules. All of those revisions are itemized and summarily outlined in Table 1, which begins on page 14 of this opinion and order, and Table 2, which begins on page 15. No further discussion of those changes will appear in this opinion and order.

⁴ Except as to revisions in the data handling and calculations requirements of appendix N to 40 C.F.R. 50. *See* 78 Fed. Reg. 3086, 3228-32 (Jan. 15, 2013)

⁵ See http://www.epa.gov/air/criteria.html (listing of current NAAQS) and http://www.epa.gov/ttn/naaqs/standards/pm/s_pm_history.html (listing of historical PM NAAQS). Not included in the listing of current standards are the 1997 primary annual average NAAQS for PM_{2.5} in 40 C.F.R. 50.7(a), the 1997 primary and secondary 24-hour NAAQS for PM_{2.5} in 40 C.F.R. 50.7(a), and the 2006 primary and secondary annual average NAAQS for PM_{2.5} in 40 C.F.R. 50.13(a), all of which remain codified. See www.epa.gov/air/criteria.html; 40 C.F.R. 50.7(a) and 50.13(a) (2013).

Request for Public Comments: The Board requests comments on the incorporation of the January 15, 2013 USEPA adoption of the 2012 NAAQS for $PM_{2.5}$.

<u>Updated Edition of List of Designated Methods—Section 243.108</u>

On June 27, 2013, USEPA released a new version of the List of Designated Methods. The List is not codified, and the Board did not see that USEPA published a notice for the update in the *Federal Register*. Rather, USEPA's usual practice is simply to post a link to the updated version on the Internet (at *www.epa.gov/ttn/amtic/criteria.html*). Thus, the Board found the update in a routine on-line check for an update.

The updated version of the List included a number of methods that were modified since the last version dated December 17, 2012. The modified methods were the following, arranged by criteria pollutant:

Carbon monoxide:

Automated Reference Method RFCA-1093-093, modified May 2013 (Teledyne-Advanced Pollution Instrumentation, Inc. Models 300, 300E, 300EU, T300, T300U; Teledyne Monitor Labs sensor-eTM Model TML-30 CO Analyzer; recordum airpointer® system module 801-003000).

Nitrogen oxides:

Automated Reference Method RFNA-0809-186, modified March 2013 (Ecotech Serinus 40 Oxides of Nitrogen Analyzer, Opsis AB OPS40 Oxides of Nitrogen Analyzer, Teledyne Analytical Instruments 9110E Oxides of Nitrogen Analyzer).

Automated Reference Method RFNA-1194-099, modified March 2013 (Teledyne-Advanced Pollution Instrumentation, Inc. Model 200A, 200AU, 200E, 200EU, T200, T200U; Teledyne Analytical Instruments 9110A; Teledyne Monitor Labs sensor-eTM Model TML-41 NO₂ Analyzers; recordum airpointer® system module 801-002000).

Automated Reference Method RFNA-1292-090, modified March 2013 (Teledyne-Monitor Labs/Casella/Ecotech Models ML9841/CM2041, ML9841A/CM2041A/EC9841A; Teledyne-Monitor Labs/Casella/Ecotech Models ML9841B/CM2041B; Wedding & Associates Model 1030 NO₂ Analyzers).

Ozone:

Automated Equivalent Method EQOA-0992-087, modified May 2013 (Teledyne-Advanced Pollution Instrumentation, Inc. Model 400E or T400; Advanced Pollution Instrumentation, Inc. Model 400/400A; Teledyne Monitor Labs sensor-eTM Model TML-10 Ozone Analyzers; recordum airpointer® system module 801-004000).

<u>PM_{2.5}:</u>

Automated Equivalent Method EQPM-0609-183, modified June 2013 (Thermo Scientific Model 5030i SHARP Monitor or Model 5030 SHARP Monitor).

Sulfur dioxide:

Automated Equivalent Method EQSA-0495-100, modified May 2013 (Teledyne-Advanced Pollution Instrumentation, Inc. Models 100A, 100AS, 100E, 100EU, T100, T100U; Teledyne Analytical Instruments Model 6400A; Teledyne Monitor Labs sensor-eTM Model TML-50 SO₂ Analyzers; recordum airpointer® system module 801-001000).

The List of Designated Methods is essential to implementation of the various NAAQS. The List specifies the analytical methods that are permissible for the monitoring required to demonstrate compliance with ambient air quality standards. Thus, the modifications are important to any entity or State using the particular methods.

Any person interested in the substance of the June 27, 2013 update to the List of Designated Methods should refer to that document. Alternatively, interested persons could contact USEPA as directed at www.epa.gov/ttn/amtic/criteria.html.

The December 17, 2012 version of the List of Designated Methods is incorporated by reference in Section 243.108. The Board has updated that incorporation by reference to the June 27, 2013 version of the List. In addition to updating the version of the List of Designated Methods, the Board has made two minor revisions to the existing text of the incorporation by reference. When adopting the incorporation by reference in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013), the Board consistently added the definite article before each appearance of "List of Designated Methods" throughout the various substantive provisions at the request of JCAR. For the sake of consistency, the Board adds the definite article to "List of Designated Methods" in the incorporation by reference, which was overlooked in the prior rulemaking. The Board further changed "this document" to "the List of Designated Methods" in the appended Board note. These added revisions are itemized and summarily outlined in Table 2, which begins on 15 of this opinion and order.

Request for Public Comments: The Board requests comments on the update to the incorporation by reference to the June 27, 2013 version of the List of Designated Methods.

New FRM for Lead—Section 243.108

On July 3, 2013 (78 Fed. Reg. 40000), USEPA established a new federal reference method (FRM) for lead in total suspended particulate matter (Pb-TSP). Establishing the new FRM involved amendment of appendix G to 40 C.F.R. 50. The former FRM for Pb-TSP was a flame atomic absorption spectrographic (FAAS) method that originated with the 1978 NAAQS for lead. *See* 43 Fed. Reg. 46246 (Oct. 5, 1978). USEPA adopted a substantially more stringent NAAQS for lead in 2008, retaining use of the FRM adopted in 1978. *See* 73 Fed. Reg. 66964 (Nov. 12, 2008). USEPA has now established a more technologically advanced, more precise,

and more sensitive inductively coupled plasma-mass spectrometric (ICP-MS) method for lead analyses. The ICP-MS method was based on two methods formerly approved as federal equivalent methods (FEMs).⁶ USEPA has now designated the former FRM as a FEM.

Any person interested in the substance of the establishment of a new FRM for Pb-TSP and the designation of the former FRM as an FEM for Pb-TSP should refer to the July 3, 2013 *Federal Register* discussion that accompanied the USEPA amendments. Alternatively, interested persons could contact USEPA as directed in the *Federal Register* notice.

The Board has decided to expedited consideration of USEPA's July 3, 2013 amendments in this docket, rather than wait until the as-yet-unreserved docket for the July 1, 2013 through December 31, 2013 update period. The Board has multiple reasons for expedited consideration of the July 3, 2013 amendments:

- Expedited consideration will facilitate implementation of the July 3, 2013 amendments, as well as the 2008 NAAQS for lead;
- Expedited consideration does not add substantially to the effort required to complete amendments based on the USEPA actions during the period January 1, 2013 through June 30, 2013, which underlie this proceeding;
- Expedited consideration will obviate very prompt initiation of any NAAQS update for the period July 1, 2013 through December 31. 2013 (to complete amendments before July 3, 2014); and
- Expedited consideration could obviate any NAAQS update for the period July 1, 2013 through December 31. 2013 (assuming that USEPA does not again act prior to January 1, 2014 in any way that requires Board action).

The Board incorporated the July 3, 2013 USEPA amendments without substantive changes. The Board updated the incorporation by reference to 40 C.F.R. 50 to the 2013 edition as amended at 78 Fed. Reg. 40000 (July 3, 2013). The Board found it necessary to depart from the literal USEPA text in doing so; the Board updated the incorporation by reference to appendix G to 40 C.F.R. 50, rather than amending substantive language, since the requirements of appendix G are incorporated by reference in the Illinois rules. This revisions is itemized and summarily outlined in Table 2, which begins on page 15 of this opinion and order.

The Board further added the former FAAS FRM as an FEM. This required adding a reference to the USEPA designation of the former FRM as an FEM to the incorporation by reference to the List of Designated Methods. Since the former FRM was codified until 2013 as appendix G to 40 C.F.R. 50, the Board as a parenthetical reference to that version of appendix G. This revisions is itemized and summarily outlined in Table 2, which begins on page 15 of this opinion and order.

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⁶ See 78 Fed. Reg. at 40001 (identifying methods EQL-0510-191 and EQL-0710-192); List of Designated Methods (December 17, 2012 or June 27, 2013 version), at p. 45.

Request for Public Comments: The Board requests comments on the incorporation of the July 3, 2013 USEPA designation of a new FRM for Pb-TSP and designation of the former FRM as an FEM for Pb-TSP.

Area Designations for the 2010 One-Hour NAAQS for Sulfur Oxides—Section 243.122

On August 5, 2013 (78 Fed. Reg. 47191), USEPA amended various provisions in 40 C.F.R. 81 to make area air quality designations for 29 areas in 16 states. USEPA designated all of the affected areas as non-attainment for the 2010 primary one-hour NAAQS for sulfur oxides. Included were two areas in Illinois, as now codified in 40 C.F.R. 81.314 (*see* 78 Fed. Reg. at 47199):

Lemont: Cook County (Lemont Township) and

Will County (DuPage and Lockport Townships); and

<u>Pekin:</u> Tazewell County (Cincinnati and Pekin Townships) and

Peoria County (Hollis Township).

These area designations were based on ambient air quality monitoring data collected in 2009, 2010, and 2011.

The immediate importance to the State of Illinois of these non-attainment designations is that the State must undertake measures to submit a SIP that meets various federal requirements and provides for attainment of the 2010 NAAQS for sulfur oxides. This submission must occur before April 6, 2015, and the SIP must provide for attainment no later than October 4, 2018. 78 Fed. Reg. at 47193; *see* 42 U.S.C. 7502, 7514, 7514a (2011) (Clean Air Act non-attainment-prompted SIP requirements).

The importance to the Board of these nonattainment designations is the effect that the area designations might have on the sunset provision in 40 C.F.R. 50.4(e) for the 1971 NAAQS for sulfur oxides. Section 243.122(a)(5) states that the Board will remove the 1971 NAAQS after the conditions in 40 C.F.R. 50.4(e) have been fulfilled. Further, the Board note attached to Section 243.122(a)(5) includes explanation of the status of area designations for sulfur oxides, and USEPA's August 5, 2013 designations makes updating that explanation necessary.

Any person interested in the substance of the designations of Pekin and Lemont as non-attainment for the 2010 NAAQS for sulfur oxides should refer to the July 3, 2013 *Federal Register* discussion that accompanied the USEPA amendments. Alternatively, interested persons could contact USEPA as directed in the *Federal Register* notice. The Board limits attention here to the effect those designations may have on the conditions recited in 40 C.F.R. 50.4(e) and on the language in the Board note appended to corresponding Section 243.122(a)(5).

⁷ The states affected were Arizona, Florida, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Montana, New Hampshire, Ohio, Pennsylvania, Tennessee, West Virginia, and Wisconsin.

The Board has decided to expedite consideration of USEPA's August 5, 2013 amendments in this docket, rather than wait until the as-yet-unreserved docket for the July 1, 2013 through December 31, 2013 update period. The reasons for expedited consideration of the August 5, 2013 amendments are similar to those discussed above with regard to July 3, 2013 designation of a new FRM:

- Expedited consideration will more promptly update the Board note appended to Section 243.122(a)(5) more accurately inform interested persons;
- Expedited consideration will not add substantial effort required to complete amendments based on the USEPA actions during the period January 1, 2013 through June 30, 2013;
- Expedited consideration will obviate prompt initiation of any NAAQS update for the period July 1, 2013 through December 31. 2013 (to complete amendments before August 5, 2014); and
- Expedited consideration could obviate any NAAQS update for the period July 1, 2013 through December 31. 2013 (assuming that USEPA does not again act prior to January 1, 2014 in any way that requires Board action).

The Board has evaluated the effect of the August 5, 2013 USEPA area designations on Illinois ambient air quality standards. The present area designations do not yet fulfill the conditions of the sunset provisions in the sunset provision for the 1971 NAAQS for sulfur oxides.

The sunset provision for the 1971 primary annual average and 24-hour NAAQS for sulfur oxides provides as follows:

The [1971 primary annual average and 24-hour NAAQS for sulfur oxides] . . . will remain applicable to all areas notwithstanding the promulgation of . . . [the 2010 primary one-hour NAAQS for sulfur oxides]. The [1971 primary annual average and 24-hour NAAQS for sulfur oxides] . . . will no longer apply to an area one year after the effective date of the designation of that area, pursuant to section 107 of the Clean Air Act [(42 U.S.C. § 7401 (2011))], for the . . . [2010 primary one-hour NAAQS for sulfur oxides]; except that for areas designated nonattainment for the [1971 primary annual average and 24-hour NAAQS for sulfur oxides] . . . as of the [August 23, 2010] effective date of . . . [the 2010] primary one-hour NAAQS for sulfur oxides], and areas not meeting the requirements of a SIP call with respect to requirements for the . . . [1971 primary annual average and 24-hour NAAQS for sulfur oxides], the [1971 primary annual average and 24-hour NAAQS for sulfur oxides] . . . will apply until that area submits, pursuant to section 191 of the Clean Air Act [(42 U.S.C. § 7514 (2011))], and EPA approves, an implementation plan providing for attainment of the . . . [2010 primary one-hour NAAQS for sulfur oxides]. 40 C.F.R. 50.4(e) (2013).

Under this provision, the Board sees two thresholds for determining that the 1971 NAAQS for sulfur oxides no longer applies to an area:

- 1. Where the area is not designated non-attainment for the 1971 NAAQS, the 1971 NAAQS will not apply one year after the effective date of USEPA designation of the attainment status of that area for the 2010 NAAQS.
- 2. Where USEPA has designated the area non-attainment for the 1971 NAAQS before August 23, 2010, or a SIP call for the 1971 NAAQS has not been fulfilled for the area, the 1971 NAAQS will not apply after USEPA has approved an implementation plan (SIP or federal implementation plan) for the area for the 2010 NAAQS.

No area of Illinois was designated non-attainment for the 1971 NAAQS for sulfur oxides prior to August 23, 2010. See 40 C.F.R. 81.314 (2011) (table for "Illinois— SO_2 "). Thus, only the first threshold applies to areas in Illinois: the 1971 NAAQS will no longer apply to an area in Illinois one year after the effective date of a USEPA designation of the attainment status of that area for the 2010 NAAQS for sulfur oxides.

The August 5, 2013 designation of the Pekin and Lemont areas as non-attainment for the 2010 NAAQS for sulfur oxides is effective October 4, 2013. *See* 78 Fed. Reg. at 47192. The 1971 NAAQS for sulfur oxides will no longer apply to those areas after October 4, 2014. USEPA plans to complete the areas designations to include all areas in the future. *See* 78 Fed. Reg. at 47193-94.

The August 5, 2013 area designation of two areas of the State is insufficient to prompt Board action to remove the 1971 NAAQS for sulfur oxides. The 1971 NAAQS will continue to apply to all other areas of the State that USEPA has not yet classified, notwithstanding inapplicability to Pekin and Lemont after October 4, 2014.

The August 5, 2013 area designations for Pekin and Lemont prompt amendment of the Board note appended to Section 243.122(a)(5). When adopting the amendments in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013), the Board added the Board note to explain the then-current status of fulfillment of the sunset conditions for the 1971 NAAQS for sulfur oxides. That explanation stated that USEPA had not yet made any area designations for the 2010 NAAQS. The explanation noted June 3, 2011 Agency recommendations to USEPA. The Board must now update the Board note explanation to reflect the August 5, 2013 area designations. The revisions to effect this update itemized and summarily outlined in Table 2, which begins on page 15 of this opinion and order.

Requests for Public Comments: The Board requests comments on the effect of the August 5, 2013 USEPA area designations for the Pekin and Lemont areas for the 2010 primary one-hour NAAQS for sulfur oxides on the continued effectiveness of the 1971 annual average and 24-hour NAAQS for sulfur oxides. The Board requests comments on the revisions made to the Board note appended to Section 243.122(a)(5) in response to the August 5, 2013 area designations.

<u>Deviations from the Literal Text of the Federal Amendments</u> and Non-Federally Derived Corrections and Clarifications

The Board routinely examines federal amendments and the base text of rules open for amendments to find any areas that need correction or clarification. JCAR and the Office of the Secretary of State also routinely examine the text and suggest corrections and clarifications. Sometimes suggestions arise from the Agency, USEPA, or members of the regulated community. The Board often makes revisions as a result. The revisions thus made are not directly derived from federal amendments. The Board is ever mindful of the limited discretion authorized in the context of an identical-in-substance proceeding. The Board is limited to "those changes that are necessary for compliance with the Illinois Administrative Code," "technical changes that in no way change the scope or meaning of any portion of the regulations," and "apparent typographical and grammatical errors." *See* 415 ILCS 5/7.2(a) and (a)(7) (2012). Thus, the Board will only make minor, non-substantive corrections and clarifications in this context. These corrections are non-substantive in effect.

Tables follow that document the corrections and clarifications made in this proceeding. The first table lists the limited number of USEPA amendments that were not necessary in this proceeding. The second table itemizes the deviations from the literal text of the USEPA amendments involved in this proceeding. The third table lists the correction made in this docket that was not prompted by federal amendments.

<u>Tabulations of Deviations from the Literal Text of the Federal Amendments and Miscellaneous Board Housekeeping Amendments.</u>

The tables below list numerous corrections and amendments that are not based on current federal amendments. Table 1 lists a number of federal amendments that the Board has not included in this docket. Table 1 gives a brief explanation why the Board has declined to make each. Table 2 includes deviations made in the adopted amendments from the verbatim text of the federal amendments. Table 3 contains corrections and clarifications that the Board made in the base text involved in the amendments. The amendments listed in Table 3 are not directly derived from the current federal amendments. Some of the entries in these tables are discussed further in appropriate segments of the general discussion beginning at page 5 of this opinion. Table 4 is a listing of revisions made to the text of the amendments from that proposed and set forth in the Board's opinion and order of September 5, 2013. Table 4 indicates the changes made, as well as the source that suggested each of the changes. Table 5 indicates suggested revisions that the Board has not made in adopting these amendments. Each entry gives a brief explanation why the Board did not incorporate the suggested change.

Table 1: Federal Amendments That Are Not Necessary in This Docket

50.14(c)(2)(vi) Table 1, column 1 heading/ 243.Table A, column 1 heading	Did not capitalize the word "pollution."/ The Board did not include the word in the column heading when adopting Table A in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013).	
50.14(c)(2)(vi) Table 1, columns 3 and 4 generally/ 243.Table A, columns 3 and 4 generally	Did not remove the footnote markings "a" (11 times), "b" (nine times), and "1" (once)./ The Board did not include the footnotes in the column 3 and 4 entries when adopting Table A in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013)	
50.14(c)(2)(vi) Table 1, column 1, 2010 one-hour nitrogen and 2010 one-hour sulfur oxides/ 243.Table A, columns 3 and 4 generally	Did not change "one-hour" to "1-Hr" (twice)./ The Board prefers the written form of numbers one through nine and not to use the abbreviation "Hr."	
50.14(c)(2)(vi) Table 1, column 1, 2010 one-hour nitrogen/ 243.Table A, columns 3 and 4 generally	Did not change "(80-100 PPB, final level TBD" to "100 ppb) Promulgated February 9, 2010."/ The Board did corrected the entry and added a citation that included the adoption date when adopting Table A in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013)	
50.14(c)(2)(vi) Table 1, column 1, 2010 one-hour sulfur oxides/ 243.Table A, columns 3 and 4 generally	Did not change "(50-100 PPB, final level TBD" to "75 ppb) Promulgated June 22, 2010."/ The Board did corrected the entry and added a citation that included the adoption date when adopting Table A in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013)	

Table 2: Deviations from the Text of the Federal Amendments

Illinois Section	40 C.F.R. Section	Revision(s)
243.107	50.3	Changed "40 CFR 50.17" to "(d)" (twice) to reflect codification of this federal provision as 35 Ill. Adm. Code 120(d).

243.108, GPO, "Appendix G to 40 CFR 50."	50, appendix G	Updated the <i>Code of Federal</i> Regulations to the latest edition available, including addition of a Federal Register citation to the July 3, 2013 amendments.
243.108, GPO, "Appendix N to 40 CFR 50."	50, appendix N	Updated the <i>Code of Federal</i> Regulations to the latest edition available, including addition of a Federal Register citation to the August 5, 2013 amendments.
243.108, USEPA, "List of Designated Methods"	"List of Designated Methods"	Updated the citation to the June 27, 2013 version of the List; added the parenthetical "as an FEM" offset by commas; changed "no Federal Register notices" to "former codified FRM that USEPA designated as FEM in the following Federal Register notice"; changed "December 17, 2012 that updated the List of Designated Methods" to "June 27, 2013"; changed the ending period to a colon; added the citation to "78 Fed. Reg. 40000 (July 3, 2013) (designating the former FRM in appendix G of 40 CFR as an FEM."
243.120(d)	50.17	Codified the new provision as a subsection of the Illinois provision that includes all PM-related standards; changed "national primary ambient air quality standards for PM _{2.5} " to the standardized format "2012 Primary Annual Average and 24-Hour NAAQS for PM _{2.5} ."

243.120(d)(1)	50.17(a)	Increased the indent level to accommodate codification of the new provision as a subsection of the Illinois provision that includes all PM-related standards; changed "national primary ambient air quality standards for PM _{2.5} are measured" to the standardized format "2012 Primary Annual Average NAAQS for PM _{2.5} is , and the 2012 24-Hour NAAQS for PM _{2.5} is , measured in the ambient air"; changed "micrograms per cubic meter (µg/m³)" to the defined abbreviation "mg/m³"; removed the parenthetical definition "(particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers)" in favor of the definition in Section 243.101; changed "by either" to "by a method that fulfills either of the following requirements."
243.120(d)(1)(A)	50.17(a)(1)	Increased the indent level to accommodate codification of the new provision as a subsection of the Illinois provision that includes all PM-related standards; changed "a reference method" to the defined term "an FRM"; changed "appendix L to this part and designated in accordance with part 53 of this chapter" to "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."

243.120(d)(1)(B)	50.17(a)(2)	Increased the indent level to accommodate codification of the new provision as a subsection of the Illinois provision that includes all PM-related standards; changed "an equivalent method" to the defined term "an FEM"; changed "designated in accordance with part 53 of this chapter" to "designated by USEPA and listed in the List of Designated Methods, incorporated by reference in Section 243.108."
243.120(d)(2)	50.17(b)	Increased the indent level to accommodate codification of the new provision as a subsection of the Illinois provision that includes all PM-related standards; changed "primary annual PM _{2.5} standard" to the standardized format "2012 primary annual NAAQS for PM _{2.5} "; changed "appendix N of the part" to "appendix N of 40 CFR 50, incorporated by reference in Section 243.108."
243.120(d)(3)	50.17(c)	Increased the indent level to accommodate codification of the new provision as a subsection of the Illinois provision that includes all PM-related standards; changed "primary 24-hour PM _{2.5} standard" to the standardized format "2012 primary 24-hour NAAQS for PM _{2.5} "; changed "appendix N of the part" to "appendix N of 40 CFR 50, incorporated by reference in Section 243.108."
243.120(d) Board note	50.17 generally	Added explanation of the derivation of subsection (d).
243.122(a)(5) Board note	50.4(e) generally and 78 Fed. Reg. 47191 (Aug. 5, 2013)	Changed the explanation of USEPA designation of areas in Illinois for the 2010 NAAQS for sulfur oxide to reflect the August 5, 2013 action.

243.Table A, "2012 annual PM _{2.5} "	50.14(c)(2), table 1, "2012 annual PM _{2.5} "	Changed "PM _{2.5} /Primary Annual Standard" to "2012 annual PM _{2.5} " in the first column; added "Section 243.120(d)(1)" and "40 CFR 50.19(a)" in the first column; changed "Promulgated December 14, 2012" to "78 Fed. Reg. 3086 (Jan. 15, 2013)" in the first column; omitted footnote markings "a" from dates in the third column (twice).
243.Table A Board note	50.14(c)(2), table 1, footnote "a"	Omitted the footnote; added explanation of the omission.
243.Table A Board note	50.14(c)(2), table 1, "2012 annual PM _{2.5} " generally	Added explanation of omission of "Promulgated December 14, 2012."

Table 3: Board Housekeeping Amendments

Section	Source	Revision(s)
243.108, GPO, "Appendix A-1 to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix A-2 to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix B to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix C to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix D to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix F to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.

243.108, GPO, "Appendix H to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix I to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix J to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix K to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix L to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix O to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix P to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix Q to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix R to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix S to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, GPO, "Appendix T to 40 CFR 50."	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.108, USEPA, "List of Designated Methods"	Board	Added the definite article before "List of Designated Methods."

243.108, USEPA, "List of Designated Methods" Board note	Board	Changed "this document" to "the List of Designated Methods."
243.120(a) Board note	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.120(b) Board note	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.120(c) Board note	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.122(a)(5) Board note	Board	Changed the explanation of USEPA designation of areas in Illinois to reflect two August 5, 2013 designations.
243.122(a) Board note	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.122(b) Board note	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.
243.122(c) Board note	Board	Updated the <i>Code of Federal Regulations Citation</i> to the latest edition available.

<u>Table 4:</u> <u>Revisions to the Text of the Proposed Amendments in Final Adoption</u>

Section	Source	Revision(s)
243.108, USEPA, "List of Designated Methods," 78 Fed. Reg. 40000	JCAR	Changed "appendix G to 40 CFR 50" to "appendix G of 40 CFR 50."
243.120(d)(2)	JCAR	Corrected the period before "incorporated by reference" to a comma.
243.120(d)(3)	Board	Corrected the period before "incorporated by reference" to a comma.
243.Table A, col. 4, row 4	Board	Corrected the spelling "occured" to "occurred."

Table 5:
Requested Revisions to the Text of the Proposed Amendments Not Made in
Final Adoption

Section Affected	Source of Request: Requested Revision	Explanation
243 source note	JCAR: Add "4 PCB 191" after "R71-23" and 46 PCB 125" after "R80-11."	The Board removed these obsolete citations in National Ambient Air Quality Standards, USEPA Regulations (through December 31, 2012), R13-11 (July 25, 2013).
243.107	JCAR: Remove the comma from before "and (d)" (twice).	The Board prefers to offset the last element of a three-or-more element series with a comma.
243.108, Government Printing Office	JCAR: Remove the comma from "Washington, DC."	The Board prefers to follow the common practice and offset "DC" by a comma.
243.122(a)(5) Board note	JCAR: Add "See 40 CFR 81.314 (2012)" before "The 1971 primary annual average."	This addition is duplicative of the citation after "effective October 4, 2013."
243.Table A Board note	JCAR: Remove the comma after "footnote 'a'" and change "which" to "that" for a restrictive relative clause.	The Board prefers to retain the non-restrictive relative clause construction as a description of footnote "a."
243.Table A Board note	JCAR: Move the ending period outside the ending quotation mark after "Promulgated December 14, 2012."	The Board prefers to retain the non-restrictive relative clause construction as a description of footnote "a."

ORDER

The Board directs the Clerk to file the following adopted amendments to the Illinois ambient air quality regulations at 35 Ill. Adm. Code 243 with the Office of the Secretary of State and to provide notice of their adoption in the *Illinois Register*:

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

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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].

SUBPART A: GENERAL PROVISIONS

Section 243.107 Reference Conditions

All measurements of air quality that are expressed as mass per unit volume (e.g., micrograms per cubic meter, other than for particulate matter ($PM_{2.5}$) standards contained in Section 243.120(b), and (c), and (d) and lead standards contained in Section 243.126(b), are corrected to a reference

temperature of 25° C, and to a reference pressure of 760 millimeters of mercury (1013.2 millibars). Measurements of PM_{2.5}, for purposes of comparison to the standards contained in Section 243.120(b), and (c), and (d), and lead, for purposes of comparison to the standards contained in Section 243.126(b), must be reported based upon the actual ambient air volume measured at the actual temperature and pressure at the monitoring site during the measurement period.

BOARD NOTE:	Derived from 40 CFR 50.3-(2012)	<u>(2013)</u> .
(Source:	Amended at 37 Ill. Reg.	, effective

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). The following documents incorporated by reference are available from this source:

Appendix A-1 to 40 CFR 50-(2012) (2013) (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 (2012) (2013) (Reference Method for the Determination of Sulfur Dioxide in the Atmosphere (Pararosaniline Method)), referenced in Section 243.122.

Appendix B to 40 CFR 50-(2012) (2013) (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-(2012) (2013) (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 (2012) (2013) (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-(2012) (2013) (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-(2012) (2013), as amended at 78 Fed. Reg. 40000 (July 3, 2013) (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-(2012) (2013) (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-(2012) (2013) (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 $50 \cdot (2012) \cdot (2013)$ (Reference Method for the Determination of Particulate Matter as PM_{10} in the Atmosphere, referenced in Section 243.120.

Appendix K to 40 CFR 50-(2012) (2013) (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-(2012) (2013) (Reference Method for the Determination of Fine Particulate Matter as PM_{2.5} in the Atmosphere), referenced in Section 243.120.

Appendix N to 40 CFR 50-(2012) (2013), as amended at 78 Fed. Reg. 47191 (August 5, 2013) (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 (2012) (2013) (Reference Method for the Determination of Coarse Particulate Matter as PM_{10-2.5} 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 (2012) (2013) (Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone), referenced in Section 243.125.

Appendix Q to 40 CFR 50 (2012) (2013) (Reference Method for the Determination of Lead in Particulate Matter as PM10 Collected from Ambient Air), referenced in appendix R to 40 CFR 50.

Appendix R to 40 CFR 50-(2012) (2013) (Interpretation of the National Ambient Air Quality Standards for Lead), referenced in Section 243.126.

Appendix S to 40 CFR 50-(2012) (2013) (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-(2012) (2013) (Interpretation of the Primary National Ambient Air Quality Standards for Oxides of Sulfur (Sulfur Dioxide)), referenced in Section 243.122.

Clean Air Act, 42 USC 7401 et seq. (2011) (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 17, 2012) (June 27, 2013) (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.

This reference includes, as an FEM, the no-former codified FRM that USEPA designated an FEM in the following Federal Register notices notice subsequent to December 17, 2012 that updated List of Designated Methods. June 27, 2013:

78 Fed. Reg. 40000 (July 3, 2013) (designating the former FRM in appendix G of 40 CFR 50 as an FEM).

BOARD NOTE: This document 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 37 Ill. Reg.	. effective	

SUBPART B: STANDARDS AND MEASUREMENT METHODS

Section 243.120 PM₁₀ and PM_{2.5}

- a) 1987 Primary and Secondary 24-Hour NAAQS for PM₁₀.
 - 1) The level of the 1987 primary and secondary 24-hour NAAQS for PM_{10} is 150 $\mu g/m^3$, 24-hour average concentration. The 1987 primary and

secondary NAAQS for PM₁₀ is 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 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 51.6(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 PM_{10} , particulate matter must be measured in the ambient air as 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-(2012) (2013). USEPA adopted 1997 primary NAAQS for PM₁₀ 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 PM₁₀ are included in this subsection (a).

- b) 1997 Primary and Secondary Annual Average and 24-Hour NAAQS for PM_{2.5}.
 - 1) The 1997 primary and secondary annual average NAAQS for PM_{2.5} is 15.0 μg/m³, annual arithmetic mean concentration, and the 1997 primary and secondary 24-hour NAAQS for PM_{2.5} is 65 μg/m³, 24-hour average concentration, measured in the ambient air as 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 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 $15.0 \,\mu\text{g/m}^3$.
- The 1997 primary and secondary 24-hour NAAQS for 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 μ g/m³.

BOARD NOTE: This subsection (b) is derived from 40 CFR 50.7-(2012) (2013). The 2006 primary and secondary annual average and 24-hour NAAQS for PM _{2.5} differs from the 1997 standards in that the 24-hour average concentration required by the 2006 standard is substantially lower (more stringent) than that for the 1997 standard. The Board has retained the 1997 standard in this subsection (b) because USEPA has retained the 1997 standard in 40 CFR 50.6.

- c) 2006 Primary and Secondary Annual Average and 24-Hour NAAQS for PM_{2.5}.
 - The 2006 primary and secondary annual average NAAQS for PM_{2.5} is 15.0 μg/m³, annual arithmetic mean concentration, and the 2006 primary and secondary 24-hour NAAQS for PM_{2.5} is 35 μg/m³, 24-hour average concentration, measured in the ambient air as 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 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 μg/m³.
 - The 2006 primary and secondary 24-hour NAAQS for 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 μ g/m³.

BOARD NOTE: This subsection (c) is derived from 40 CFR 50.13-(2012) (2013).

d) 2012 Primary Annual Average and 24-Hour NAAQS for PM_{2.5}

- 1) The 2012 primary annual average NAAQS for PM_{2.5} is 12.0 μg/m³ annual arithmetic mean concentration, and the 2012 primary 24-hour NAAQS for PM_{2.5} is 35 μg/m³ 24-hour average concentration, measured in the ambient air as 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 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 µg/m³.
- 3) The 2012 primary 24-hour NAAQS for 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 µg/m³.

BOARD NOTE: This subsection (d)	is derived from 40 CFR 50.13 (2013).
(Source: Amended at 37 Ill. Reg,	effective)

Section 243.122 Sulfur Oxides (Sulfur Dioxide)

- a) 1971 Primary Annual Average and 24-Hour NAAQS for Sulfur Oxides (as Sulfur Dioxide (SO₂)).
 - 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 SO₂ 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) 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) after fulfillment of the conditions recited by USEPA in corresponding 40 CFR 50.4(e).

BOARD NOTE: Corresponding 40 CFR 50.4(e) recites that the 1971 primary NAAQS for sulfur oxides remains effective in two types of areas for which USEPA has not yet approved an implementation plan for attainment with the 2010 primary one-hour NAAQS for sulfur oxides. The first type of area is one that USEPA had designated as non-attainment for that standard as of the effective date of the 2010 primary one-hour NAAQS for the 1971 primary NAAQS for sulfur oxides as of the effective date of the 2010 NAAQS. That date was August 23, 2010. See 75 Fed. Reg. 35520 (June 22, 2010). As of that date, USEPA had not designated any area in Illinois as non-attainment. See 40 CFR 81.314 (2010). The Board is unaware of any USEPA SIP call for any area of Illinois relative to the 1971 primary NAAQS for sulfur oxides. As of December 31, 2012, USEPA had not yet designated the attainment status of two areas in Illinois for the 2010 primary one-hour NAAQS for sulfur oxides on August 5, 2013, effective October 4, 2013. See 40 CFR 81.314-(2012) (2013), as amended at 78 Fed. Reg. 47191 (Aug. 5, 2013) (Lemont and Pekin areas). The Agency recommended that USEPA designate limited areas of Illinois as non-attainment with the 2010 primary one-hour NAAQS. See letter of June 2, 2011 from Laurel Kroack, Chief, Bureau of Air, Agency, to Cheryl A. Newton, Director, Office of the Air and Radiation Division, USEPA Region 5 (available at http://www.epa.gov/ so2designations/recletters/R5 IL rec wtechanalysis.pdf). The 1971 primary annual average and 24-hour NAAQS for sulfur oxides will no longer apply to those two designated areas effective October 4, 2014; although the NAAQS will continue to apply to all other areas of Illinois

<u>after that date.</u> When the conditions of this subsection (a)(5) have been fulfilled <u>as to all areas of Illinois</u>, or USEPA has removed 40 CFR 50.4, the Board will remove the standard of this subsection (a) as obsolete.

BOARD NOTE: This subsection (a) is derived from 40 CFR 50.4-(2012).

- b) 1971 Secondary Three-Hour NAAQS for Sulfur Oxides (as SO₂).
 - 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).
 - Sulfur oxides must be measured in the ambient air as SO₂ 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) of this Section, 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-(2012).

- c) 2010 Primary One-Hour NAAQS for Sulfur Oxides (as SO₂).
 - 1) The level of the 2010 primary one-hour NAAQS for sulfur oxides is 75 ppb, measured in the ambient air as SO₂.
 - 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-(2012). The 1971 primary NAAQS for SO₂ remains in effect until the federal conditions of 40 CFR 50.4(e) have been fulfilled, as outlined in subsection (a)(5) of this Section and the appended Board note.

(Source:	Amended at 37 Ill. Reg.	, effective)
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Section 243.TABLE A Schedule of Exceptional Event Flagging and Documentation Submission for New or Revised NAAQS

NAAQS (Level) Regulatory Citations	Air quality data collected for calendar year	Event flagging & initial description deadline	Detailed documentation submission deadline
2006 24-hour PM _{2.5} (35 μg/m ³) Section 243.120(c)(1) 40 CFR 50.13(a) 71 Fed. Reg. 61144 (Oct. 17, 2006)	2004-2006	October 1, 2007	April 15, 2008
2008 eight-hour ozone (0.075 ppm) Section 243.125(c)(1) 40 CFR 50.15(a) 73 Fed. Reg. 16436 (Mar. 27, 2008)	2005-2007 2008 2009	June 18, 2009 June 18, 2009 60 days after the end of the calendar quarter in which the event occurred or February 5, 2010, whichever date occurred first	June 18, 2009 June 18, 2009 60 days after the end of the calendar quarter in which the event occurred or February 5, 2010, whichever date occurred first
2010 one-hour nitrogen oxides (as NO ₂) (100 ppb) Section 243.124(b) 40 CFR 50.11(b) 75 Fed. Reg. 6474 (Feb. 9, 2010)	2008 2009 2010	July 1, 2010 July 1, 2010 April 1, 2011	January 22, 2011 January 22, 2011 July 1, 2010

2010 one-hour sulfur oxides (as SO ₂) (75 ppb) Section 243.122(c)(1) 40 CFR 17(a) 75 Fed. Reg. 35520 (June 22, 2010)	2008 2009 2010 2011	October 1, 2010 October 1, 2010 June 1, 2011 60 days after the end of the calendar quarter in which the event occurred or March 31, 2012, whichever date	June 1, 2011 June 1, 2011 June 1, 2011 60 days after the end of the calendar quarter in which the event occurred or March 31, 2012, whichever date
2012 annual PM _{2.5} (12 μg/m3) Section 243.120(d)(1) 40 CFR 50.18(a) 78 Fed. Reg. 3086 (Jan. 15, 2013)	2010 and 2011 2012 2013	occurred first July 1, 2013 July 1, 2013 July 1, 2014	December 12, 2013 December 12, 2013 August 1, 2014

BOARD NOTE: Derived from table 1 to 40 CFR 50.14(c) (2012). USEPA noted that the information in this table of revised deadlines only applies to data that USEPA will use to establish the final-initial area designations for new or revised NAAQS. USEPA stated that the general schedule in this table applies for all other purposes, most notably, for data that USEPA will use for redesignations to attainment. Corresponding table 1 to 40 CFR 50.14(c)(2) cites the 2010 one hour NAAQS for nitrogen oxides as "80-100 PPB, final level TBD" and the 2010 onehour NAAOS for sulfur oxides as "80-100 PPB, final level TBD." The adopted 2010 one-hour NAAQS for NO_X at 40 CFR 50.11(f) is 100 ppb and the adopted 2010 one-hour NAAQS for SO₂ is 75 ppb. The Board has used the actual NAAQS for these contaminants in this Table A. Further, corresponding table 1 to 40 CFR 50.14(c) includes endnotes "a" and "b" indicate whether dates for NO₂ and SO₂ are changed or unchanged, which the Board has omitted, since endnotes will serve no purpose in the Illinois regulations. includes a footnote "a," which indicates that the tabulated deadlines for event flagging and initial description for 2012 and 2013 data under the 2012 primary annual average NAAQS for PM_{2.5} are the same as those prescribed by 40 CFR 50.14 (corresponding with Section 243.105). The Board omitted those footnotes as unnecessary in the Illinois rules. Corresponding federal table 1 states that the 2012 primary annual average NAAQS for PM_{2.5} was "Promulgated December 14, 2012." Although the Administrator of USEPA signed adopted rule on that date, publication did not occur until January 15, 2013. See 78 Fed. Reg. 3086, 3276 (Jan. 15, 2013). The Board has used the Federal Register citation and date.

(Source: Amended at 37 Ill. Reg. _____, effective _____

IT IS SO ORDERED.

I, Don A. Brown, Acting Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on November 21, 2013, by a vote of 4-0.

Don A. Brown, Acting Clerk Illinois Pollution Control Board

Don a. Brown