RECEIVED BEFORE THE ILLINOIS POLLUTION CONTROL BOARD CLERK'S OFFICE

R09-

DEC 0 1 2008

IN THE MATTER OF:

CLEAN-UP AMENDMENTS TO 35 ILL. ADM. CODE PART 243

TABLE OF CONTENTS OF REGULATORY SUBMITTAL

)

))

- Notice of Filing 1.
- Appearance of Charles E. Matoesian, Assistant Counsel for the Illinois 2. Environmental Protection Agency
- Proposal of Regulations by Director Douglas P. Scott 3.
- Agency Analysis of Economic and Budgetary Effects 4.
- Statement of Reasons 5.
- 6. Proposed Amendments to 35 Ill. Adm. Code 243
- Technical Support Document for Rule Revisions to Part 243: Air Quality 7. Standards, Illinois Environmental Protection Agency, September 2008.
- Certificate of Service 8.
- 9. Disk in Microsoft WORD containing Agency's Analysis of Economic and Budgetary Effects (ECONOMICBUDGET-243.doc) and Proposed Amendments to Part 243 (RULE-243.doc)

(Rulemaking – Air)

STATE OF ILLINOIS **Pollution Control Board**

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

RECEIVED CLERK'S OFFICE

DEC 0 1 2008

IN THE MATTER OF:

CLEAN-UP AMENDMENTS TO 35 ILL. ADM. CODE PART 243

,	
)	
)	
)	
)	
)	

)

R09- | (Rulemaking - Air)

STATE OF ILLINOIS Pollution Control Board

NOTICE

TO: John Therriault, Assistant Clerk Illinois Pollution Control Board James R. Thompson Center 100 West Randolph, Suite 11-500 Chicago, Illinois 60601-3218

> Virginia Yang, Deputy Legal Counsel Illinois Department of Natural Resources One Natural Resources Way Springfield, IL 62702

Matthew Dunn, Chief Division of Environmental Enforcement Office of the Attorney General 69 West Washington St., Suite 1800 Chicago, IL 60602

PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board the <u>REGULATORY PROPOSAL FOR CLEAN-UP AMENDMENTS TO 35 ILL. ADM.</u> <u>CODE PART 243</u> and <u>APPEARANCE</u> of the Illinois Environmental Protection Agency *a* copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL **PROTECTION AGENCY**

Bv: Charles E. Matoesian

Assistant Counsel Division of Legal Counsel

DATED: November 25, 2008

1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 217.782.5544 217.782.9143 (TDD)

THIS FILING IS SUBMITTED ON RECYCLED PAPER

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD RECEIVED CLERK'S OFFICE

))

)

)

IN THE MATTER OF:

CLEAN-UP AMENDMENTS TO 35 ILL. ADM. CODE PART 243

D00 19	DEC 0 1 2008
(Rulemaking – A	STATE OF ILLINOIS

APPEARANCE

The undersigned hereby enters his appearance as an attorney on behalf of the

Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

> Charles E. Matoesian Assistant Counsel Division of Legal Counsel

DATED: November 25, 2008

1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 217/782-5544

RECEIVED CLERK'S OFFICE

DEC 0 1 2008

STATE OF ILLINOIS BEFORE THE ILLINOIS POLLUTION CONTROL BOARDution Control Board

)

)

)

)

IN THE MATTER OF:

CLEAN-UP AMENDMENTS TO 35 ILL. ADM. CODE PART 243 R09 –) [¶] (Rulemaking – Air)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY PROPOSAL OF REGULATIONS

The Illinois Environmental Protection Agency moves that the Illinois Pollution Control Board adopt the attached regulations.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By:

Douglas P S Director

DATED: November 25, 2008

1021 North Grand Ave. East P.O. Box 19276 Springfield, Illinois 62794-9276 217/782 3397

Agency Analysis of Economic and Budgetary Effects of Proposed Rulemaking

Agency: Illinois Pollution Control Board

Part/Title: Air Quality Standards (35 Ill. Adm. Code Part 243)

Illinois Register Citation:

Please attempt to provide as dollar-specific responses as possible and feel free to add any relevant explanation.

- 1. Anticipated effect on State expenditures and revenues.
 - (a) Current cost to the agency for this program/activity. <u>\$ 0 per year</u>
 - (b) If this rulemaking will result in an increase or decrease in cost, specify the fiscal year in which this change will first occur and the dollar amount of the effect. N/A
 - (c) Indicate the funding source, including Fund and appropriation lines, for this program/activity. N/A
 - (d) If an increase or decrease in the costs of another State agency is anticipated, specify the fiscal year in which this change will first occur and the estimated dollar amount of the effect. N/A
 - (e) Will this rulemaking have any effect on State revenues or expenditures not already indicated above? <u>No</u>
- 2. Economic effect on persons affected by the rulemaking:
 - (a) Indicate the economic effect and specify the persons affected:

Positive ____ No effect _X___

Persons affected: N/A

Dollar amount per person: N/A

Total statewide cost: N/A

(b) If an economic effect is predicted, please briefly describe how the effect will occur. N/A

(c) Will the rulemaking have an indirect effect that may result in increased administrative costs? Will there be any change in requirements such as filing, documentation, reporting or completion of forms?

<u>The rulemaking should have no indirect effect that may result in increased</u> <u>administrative costs.</u>

BEFORE THE ILLINOIS POLLUTION CONTROL BOARDECEIVED CLERK'S OFFICE

IN THE MATTER OF:

CLEAN-UP AMENDMENTS TO 35 ILL. ADM. CODE PART 243 DEC 0 1 2008 STATE OF ILLINOIS Pollution Control Board (Rulemaking - Air)

STATEMENT OF REASONS

)

)

)

)

The Illinois Environmental Protection Agency ("Illinois EPA") hereby submits this Statement of Reasons to the Illinois Pollution Control Board ("Board") pursuant to Sections 27 and 28 of the Environmental Protection Act ("Act") (415 ILCS 5/27 and 28) and 35 Ill. Adm. Code 102.202(b), in support of the attached proposed amendments to existing regulations. Included in this proposal are amendments to 35 Ill. Adm. Code Part 243 ("Part 243"), which update the existing Part to incorporate new federal air quality standards. These changes include: amending Section 243.125 to the repeal the 1-hour ozone standard and replace it with the 8-hour ozone standard; proposing a new Section 243.120a to incorporate the new particulate matter standard (PM_{2.5}); and updating Section 243.108 to include the new incorporations by reference. This proposal amends the most recent version of Part 243 as found on the Board's website.

I. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY PROPOSAL

This proposed rulemaking simply updates the existing regulation and is a result of new National Ambient Air Quality Standards ("NAAQS") adopted by the United States Environmental Protection Agency ("U.S. EPA"). Originally, the Subpart at issue was adopted to satisfy Clean Air Act ("CAA") requirements. Recent changes by the U.S. EPA require amendments to the Illinois rules to reflect the new NAAQS for both ozone and particulate matter. More specifically, the amendments reflect the new 8-hour ozone standard and the revocation of the 1-hour standard. This new standard is set forth in a recent posting in the Federal Register, *National Ambient Air Quality Standards for Ozone*, 73 Fed. Reg. 16436 (March 27, 2008). The ambient air quality standard for ozone is 0.075 ppm daily maximum 8-hour concentration, and is based on the fourth-highest daily 8-hour value recorded during a calendar year and measured by a reference or equivalent method as described in 40 CFR Part 50, Section 50.1 (2003) and the newly created Interpretation of the NAAQS for O₃, 40 CFR Appendix P, 73 Fed. Reg. 16436 (March 27, 2008).

Concerning particulate matter, several recent postings in the Federal Register reflect changes to the NAAQS for PM_{10} and $PM_{2.5}$. On July 18, 1997, a Federal Register posting at 62 Fed. Reg. 38652 lowered the annual arithmetic mean concentration to 15 micrograms per cubic meter. More recently, in *The National Ambient Air Quality Standards for Particulate Matter*, 73 Fed. Reg. 61144 (October 17, 2006), a maximum 24-hour concentration of 35 micrograms per cubic meter was established. This was to be calculated at the 98th percentile value, as determined by 40 CFR Part 50, Appendix N. The posting also updated Appendix L of 40 CFR Part 50, which describes the reference method used for the determination of fine particulate matter as $PM_{2.5}$ in the atmosphere. Appendix N, meanwhile, was further updated in a separate posting, *Interpretation of the National Ambient Air Quality Standards for PM*_{2.5}, 40 CFR Part 50, Appendix N, 73 Fed. Reg. 1497 (January 9, 2008). Finally, Section 243.107, Reference Conditions, was

2

updated to reflect that $PM_{2.5}$ measurements should be based upon the actual ambient air volume measured at the actual temperature and pressure at the monitoring site during the measurement period. This differs from the other air quality measurements which are corrected to a reference temperature of 25° C, and to a reference pressure of 760 millimeters of mercury (1013.2 millibars).

The standard for PM_{10} was also amended by the Federal Register posting of October 17, 2006. The Federal Register posting revoked the annual PM_{10} standard which had been calculated as the annual arithmetic mean concentration of 50 micrograms per cubic meter. The posting left the daily PM_{10} standard unchanged at a maximum 24-hour concentration of 150 micrograms per cubic meter, not to be exceeded more than once per year. The posting further amended Appendix K of 40 CFR Part 50, which described the interpretation of the NAAQS for particulate matter.

Lastly, the Illinois EPA's proposal involves several minor corrections to Section 243.101 (Definitions), Section 243.104 (Nondegradation), Section 243.122 (Sulfur Oxides (Sulfur Dioxide)), and Section 243.126 (Lead). These amendments simply correct typographical errors and put citations in proper form.

II. GEOGRAPHIC REGIONS AND SOURCES AFFECTED

Sources throughout the state could be affected by this proposal, but, as stated, the proposal simply incorporates the addition of new federal standards which are currently applicable throughout the nation.

III. PURPOSE AND EFFECT OF THE PROPOSAL

3

This proposal is a minor clean-up of Part 243. It incorporates new U.S. EPA air quality standards and has no real impact upon sources as it is currently federal law. These standards are well known to industry and have been thoroughly discussed by the U.S. EPA.

IV. TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS

The amendments to Part 243 do not impose new requirements, they merely update the State's regulations to reflect current federal law and standards. The Illinois EPA therefore believes that an analysis of technical feasibility and economic reasonableness is not appropriate. These standards are well known to industry and have been thoroughly discussed by the U.S. EPA.

V. COMMUNICATION WITH INTERESTED PARTIES

These amendments are being proposed based on current national ambient air quality standards adopted by the U.S. EPA that must be reflected in Illinois' regulations. As the changes are commonly known throughout industry, no specific program of outreach was implemented.

VI. CONCLUSION

update specified provisions and to reflect current national ambient air quality standards established by the U.S. EPA under the federal Clean Air Act.

WHEREFORE, for the reasons stated above, the Illinois EPA hereby submits this regulatory proposal and requests the Board adopt these proposed amendments to Part 243 for the State of Illinois.

Respectfully submitted, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY By

Charles E. Matoesian Assistant Counsel Division of Legal Counsel

DATED: November 25, 2008

1021 North Grand Ave. East P.O. Box 19276 Springfield, IL 62794-9276

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 Preamble
- 243.103 Applicability
- 243.104 Nondegradation
- 243.106 Monitoring
- 243.107 Reference Conditions
- 243.108 Incorporations by Reference

SUBPART B: STANDARDS AND MEASUREMENT METHODS

Section

- 243.120 <u>PM₁₀ PM-10</u>
- <u>243.120a</u> <u>PM 2.5</u>
- 243.121 Particulates (Repealed)
- 243.122 Sulfur Oxides (Sulfur Dioxide)
- 243.123 Carbon Monoxide
- 243.124 Nitrogen Dioxide
- 243.125 <u>8 Hour</u> Ozone
- 243.126 Lead
- Appendix A Rule into Section Table
- Appendix B Section into Rule Table
- Appendix C Past Compliance Dates

AUTHORITY: Implementing Section 10 and 11thorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111 1/2, pars. 1010 and 1027).

SOURCE: Adopted as Chapter 2: Air Pollution, Part III: Air Quality Standards, in R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R80-11, 46 PCB 125, at 6 III. Reg. 5804, effective April 22, 1982; amended in R82-12, at 7 III. 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 ______ at _____, effective ______.

SUBPART A: GENERAL PROVISIONS

Section 243.101 Definitions

- a) Except as hereinafter stated and unless a different meaning of a term is clear from its context, the definitions of terms used in this Part shall be the same as those used in the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1001 et seq.) (Act).
- b) All terms which appear in this Part have the definitions specified by Parts 201 or 211 of this <u>Subtitle Chapter</u>.

(Source: Amended at _____, effective _____).

Section 243.102 Preamble

- a) Air quality standards are limits on atmospheric concentrations of air contaminants established for the purpose of protecting public health and welfare. The levels of air quality designated by the standards are designed to protect against injury to human, plant or animal life and they are further intended to allow maximum enjoyment of life and property consistent with the intent of the Act.
- b) The first use of our air resources is to sustain life. Air entering the respiratory tract must not menace health. Therefore, the air quality standards set must, as a minimum, provide air which will not adversely affect, through acute or chronic symptoms, the health of the community. Adverse health effects include not only the possible production and aggravation of disease, but also interference with bodily functions. The standards have also taken into account soiling, corrosion, vegetation damage and other human effects.
- c) Primary ambient air quality standards define levels of air quality which are necessary, with an adequate margin of safety, to protect the public health. Secondary ambient air quality standards define levels of air quality which are necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

d) The standards are more than goals. They are legally enforceable limitations, and any person causing or contributing to a violation of the standards is subject to enforcement proceedings under the Act. The standards have also been designed for use as a basis for the development of implementation plans by State and local agencies for the abatement and control of pollutant emissions from existing sources, and for the determination of air contaminant emission limitations to insure that population and economic growth trends do not add to the region's air pollution problems.

Section 243.103 Applicability

The standards in this Part are applicable throughout the State of Illinois, except as otherwise provided in this Part.

Section 243.104 Nondegradation

Existing ambient air quality which is better than the <u>established</u> extablished ambient air quality standards at the date of their adoption will be maintained in its present high quality. Such ambient air quality shall not be lowered unless and until it is proved to the Illinois Environmental Protection Agency (Agency) that such change is justifiable as a result of necessary economic and social development and will not interfere with or become injurious to human health or welfare.

(Source: Amended at _____, effective _____).

Section 243.106 Monitoring

Pollution levels will be determined by fixed or mobile sampling stations beyond the premises on which a source is located. Stations will be located according to the guildelines for established monitoring networks as developed by the United States Environmental Protection Agency.

Section 243.107 Reference Conditions

All measurements of air quality, except $PM_{2.5}$, are corrected to a reference temperature of 25° C, and to a reference pressure of 760 millimeters of mercury (1013.2 millibars). $PM_{2.5}$ measurements shall be based upon the actual ambient air volume measured at the actual temperature and pressure at the monitoring site during the measurement period.

(Source: Amended at _____, effective _____).

Section 243.108 Incorporations by Reference

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

- a) Pararosaniline method, 40 CFR 50, Appendix A (1982).
- b) Non-dispersive infrared spectrometry technique, 40 CFR 50, Appendix C (1982), 36 Fed. Reg. 22391, November 25, 1971.
- c) Colorimetric method, 36 Fed. Reg. 22396, November 25, 1971.
- d) Ozone-ethylene reaction method, 40 CFR 50, Appendix D (1982), 36 Fed. Reg. 22392, November 25, 1971.
- e) Lead, 40 CFR 50, Appendix G (1982), 43 Fed. Reg. 46258, October 5, 1978, as amended at 44 Fed. Reg. 37915, June 29, 1979; 46 Fed. Reg. 44163, September 3, 1981.
- f) Reference method for the determination of particulate matter as $\underline{PM_{10}} \underline{PM}_{10}$ in the atmosphere, 40 CFR 50, Appendix J (1990).
- g) Interpretation of the national ambient air quality standards for particulate matter, 40 CFR 50, Appendix K, 73 Fed. Reg. 61144 (October 17, 2006). (1990)
- h) Reference method for the determination of particulate matter as PM_{2.5} in the atmosphere, 40 CFR 50, Appendix L, 73 Fed. Reg. 61144 (October 17, 2006).
- i) Interpretation of the national ambient air quality standards for PM_{2.5}, 40 CFR 50, Appendix N, 73 Fed. Reg. 1497 (January 9, 2008).
- j. Interpretation of the NAAQS for O₃, 40 CFR 50, Appendix P, 73 Fed. Reg. 16436 (March 27, 2008).

(Source: Amended at _____, effective _____).

SUBPART B: STANDARDS AND MEASUREMENT METHODS

Section 243.120 <u>PM₁₀ PM-10</u>

a) Standards. The ambient air quality standards for <u>PM₁₀ PM-10 is a</u> maximum 24-hour concentration of 150 micrograms per cubic meter, as measured in accordance with subsection (b) below.

are:

- 1) An annual arithmetic mean concentration of 50 micrograms percubic meter; and
- 2) A maximum 24-hour concentration of 150 micrograms per cubicmeter, not to be exceeded more than once per year.
- b) Measurement Method. For determining conformance with the $\underline{PM_{10}}$ \underline{PM}_{10} ambient air quality standards, $\underline{PM_{10}}$ \underline{PM}_{10} \underline{PM}_{10} shall be measured by the method described in 40 CFR 50, Appendix J (incorporated by reference in Section 243.108). The computations necessary for analyzing particulate matter data to determine attainment of the \underline{PM}_{10} \underline{PM}_{10} standards are described in 40 CFR 50, Appendix K (incorporated by reference in Section 243.108).

(Source: Amended at _____, effective _____).

243.120a PM2.5

- a) Standards. The ambient air quality standards for PM2.5 are:
 - 1) An annual arithmetic mean concentration of 15 micrograms per cubic meter; and
 - A maximum 24-hour concentration of 35 micrograms per cubic meter, at the 98th percentile value, as determined by 40 CFR Part 50, Appendix N, and as measured in conformance with subsection (b) below.
- b) Measurement Method. For determining conformance with the PM_{2.5} ambient air quality standards, PM_{2.5} shall be measured by the method described in 40 CFR 50, Appendix L (incorporated by reference in Section 243.108). The computations necessary for analyzing particulate matter data to determine attainment of the PM_{2.5} standards are described in 40 CFR 50, Appendix N (incorporated by reference in Section 243.108).

(Source: Added at _____, effective _____).

5

Section 243.121 Particulates (Repealed)

(Source: Repealed at 16 Ill. Reg. 8185, effective May 15, 1992)

Section 243.122 Sulfur Oxides (Sulfur Dioxide)

- a) Primary Standards. The primary ambient air quality standards for sulfur oxides measured as sulfur dioxide are:
 - 1) An annual arithmetic mean concentration of 80 micrograms per cubic meter (0.03 ppm); and,
 - 2) A maximum 24-hour concentration not to be exceeded more than once per year of 365 micrograms per cubic meter (0.14 ppm).
- b) Secondary Standard. The secondary ambient air quality standard for sulfur oxides measured as sulfur dioxide is a maximum 3-hour concentration not to be exceeded more than once per year of 1,300 micorgrams per cubic meter (0.5 ppm).
- c) Measurement Method. For determining conformance with sulfur oxide air quality standards, sulfur oxides shall be measured as sulfur dioxide by the pararosaniline method described in 40 CFR 50, <u>Appendix App.</u> A, (1982), or by an equivalent method of proof approved by the Agency.

(Source: Amended at _____, effective _____).

Section 243.123 Carbon Monoxide

- a) Standards. The ambient air quality standards for carbon monoxide are:
 - 1) A maximum 8-hour concentration not to be exceeded more than once per year of 10 milligrams per cubic meter (9 ppm); and,
 - 2) A maximum 1-hour concentration not to be exceeded more than once per year of 40 milligrams per cubic meter (35 ppm).
- b) Measurement Method. For determining conformance with the carbon monoxide air quality standard, carbon monoxide shall be measured by the nondispersive infrared spectrometry technique as described in 40 CFR 50, App. C (1982), 36 Fed. Reg. 22,391, November 25, 1971, or by an equivalent method approved by the Agency.

Section 243.124 Nitrogen Dioxide

- a) Standard. The ambient air quality standard for nitrogen dioxide is an annual arithmetic mean concentration of 100 micrograms per cubic meter (0.05 ppm).
- b) Measurement Method. For determining conformance with the nitrogen dioxide air quality standard, nitrogen dioxide shall be measured by the colorimetric method as described in 36 Fed. Reg. 22,396, November 25, 1971, or by an equivalent method approved by the Agency.

Section 243.125 <u>8-Hour</u> Ozone

- a) Standard. The ambient air quality standard for ozone is 0.075 ppm daily maximum 8-hour concentration based on the fourth-highest daily 8-hour value recorded during a calendar year and in accordance with subsection (b) below.
- b) Measurement Method. For determining conformance with the ozone air quality standard, ozone shall be measured by a reference or equivalent method as described in 40 CFR Part 50, Section 50.1 (2003) and the Interpretation of the NAAQS for O₃, 40 CFR Appendix 50, P, 73 Fed. Reg. 16436 (March 27, 2008).
- a) Standard. The ambient air quality standard for ozone is 0.12 ppm (235micrograms per cubic meter) maximum 1-hour concentration not to beexceeded on more than one day per year.
- b) Measurement Method. For determining conformance with the ozone air quality standard, ozone shall be measured by the ozone ethylene reaction method as described in 40 CFR 50, App. D, (1982), as amended.

(Source: Amended at ______, creative ______).

Section 243.126 Lead

a) Standard. The ambient air quality standards for lead and its compounds <u>is</u> are 1.5 micrograms per cubic meter, maximum arithmetic mean average over a calendar quarter. b) Measurement Method. For determining conformance with the ambient air quality standards for lead and its compounds, lead and its compounds shall be measured by the atomic absorbtion spectrometry or equivalent method as described in 40 CFR 50 <u>Appendix App.</u> G (1982).

(Source: Amended at _____, effective _____).

Appendix A Rule into Section Table

RULE	SECTION
301	243.102
302	243.103
303	243.104
304	Appendix C
305	243.106
306	243.107
307	243.121
308	243.122
309	Repealed
310	243.123
311	243.124
312	243.125
313	243.126

Appendix B Section into Rule Table

SECTION	RULE
243.101	
243.102	301
243.103	302
243.104	303
243.106	305
243.107	306
243.121	307
243.122	308
243.123	210
243.124	311
243.125	312

243.126 313

Appendix C Past Compliance Dates

Except as otherwise noted, compliance with this Part was required June 26, 1973.

Technical Support Document for Revisions to Part 243: Air Quality Standards

Purpose

The Clean Air Act (CAA) requires that the U.S. Environmental Protection Agency (U.S. EPA) establish National Ambient Air Quality Standards (NAAQS) for six criteria pollutants that have been deemed harmful to public health and the environment. The six criteria pollutants are ozone, particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. The CAA also requires that U.S. EPA review, on a periodic basis, new scientific evidence about the effects of these pollutants on public health and welfare and to revise the standards as appropriate. On October 17, 2006 (effective December 18, 2006), U.S. EPA revised the NAAQS for particulate matter, reducing the 24-hour standard for fine particles less than 2.5 microns in diameter ($PM_{2.5}$) from 65 micrograms per cubic meter to 35 micrograms per cubic meter. On March 12, 2008, U.S. EPA also strengthened the NAAQS for ozone, reducing the 8-hour average standard from 0.08 parts per million to 0.075 parts per million.

The Illinois Environmental Protection Agency (Illinois EPA) is proposing to amend Part 243 of Title 35 of the Illinois Administrative Code to update Illinois' air quality standards consistent with those adopted by the U.S. EPA. The Illinois EPA is also proposing to amend Part 243 to establish an annual $PM_{2.5}$ standard of 15 micrograms per cubic meter, consistent with the Federal standard established on July 18, 1997, and to revoke the annual standard of 50 micrograms per cubic meter for PM_{10} (particulate matter less than 10 microns in diameter), consistent with the Federal standards as revised on October 17, 2006.

Background

The CAA established two types of national air quality standards: primary standards and secondary standards. Primary standards are limits for protecting public health, including the health of "sensitive" populations (such as asthmatics, children, and the elderly). Secondary standards establish limits to protect the welfare of the public, which includes protection against decreased visibility, damage to buildings, crops, animals and vegetation. As mentioned previously, the CAA established air quality standards for six criteria pollutants: ozone, particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. The proposed revisions to Part 243 address the recent revisions by U.S. EPA of the national air quality standards for ozone and particulate matter.

Ozone, as it exists at ground level in the atmosphere, has been linked to health effects associated with the lungs and respiratory systems. Specifically, it can cause reduced lung function, irritated airways, a higher frequency of asthma attacks, inflammation and damage to the lining of the lungs, and a higher risk of respiratory infections. This can result in greater medication use, absences from school, and more frequent doctor visits. In addition, ground-level ozone can have detrimental effects on public welfare. Elevated ozone levels can decrease forest growth and crop yields, greatly damage the leaves of trees and other plants (which would ruin the appearance of

urban vegetation, national parks, and recreation areas), and increase the susceptibility of sensitive plants to diseases, insects, other pollutants, and severe weather.

Ozone is not emitted into the ambient air, but rather is produced in the atmosphere through a complex series of chemical reactions involving nitrogen oxides (NO_x) and volatile organic material (VOM) emitted by both man-made and natural emission sources. Significant sources of NO_x and VOM include a range of industrial processes, motorized vehicles (both on- and offroad), and the use of chemical solvents.

Particulate matter (PM) is a complex mixture of particles and liquid droplets that are suspended in the atmosphere. Exposure to such matter has been linked to several significant health problems. Short-term exposure to particulate matter (in hours or days) can aggravate the lungs and cause asthma attacks, acute bronchitis, and could even raise the risk of respiratory infections, heart attacks, and heart arrhythmias. Other symptoms include irritation of the eyes, nose, and throat, shortness of breath, and chest pains. Long-term exposure to high particulate levels can lead to the development of chronic bronchitis and reduced lung function, and premature death from heart and lung disease. Welfare effects include reduced visibility and soiling of property.

Particulate matter is emitted from a wide range of emission sources, include fuel combustion, high temperature industrial processes, tire and brake wear, and resuspension of dust from roads and farm fields. Particulate matter can also be the result of chemical reactions occurring in the atmosphere, involving gaseous pollutants, such as sulfur dioxide, nitrogen oxides, ammonia, and organic compounds.

U.S. EPA has established NAAQS for two categories of particulate matter based on the size of the particles. Coarse particulate matter, also known as PM_{10} , is defined as particles that are less than 10 micrometers in diameter. The PM_{10} NAAQS were originally established in 1987. However, effective December 17, 2006, U.S. EPA revoked the annual standard for PM_{10} as more recent health studies attributed adverse long term health effects to fine particulate matter ($PM_{2.5}$). U.S. EPA has retained the existing 24-hour PM_{10} standard of 150 micrometers. In 1997, U.S. EPA established the fine particulate matter standard, or $PM_{2.5}$, to address the adverse health impacts associated with fine particles that were not adequately controlled by the previous PM_{10} standards. On October 17, 2006, U.S. EPA strengthened the 24-hour fine particle standard based on continuing research on health effects of particulate matter.

Implementation of Revised Air Quality Standards

Following promulgation of a new or revised air quality standard, the CAA requires the Governor of each state to recommend initial designations of the attainment status for all areas in the state. Areas can be classified as nonattainment (does not meet, or contributes to a nearby area that does not meet the NAAQS), attainment (meets the NAAQS), or unclassifiable (cannot be classified based on available data).

If a state identifies, through ambient monitoring, that an area fails to meet the NAAQS, the CAA requires a state with areas that fail to meet the NAAQS to develop a State Implementation Plan

(SIP) describing how the state will attain and maintain the NAAQS. SIPs must include control strategies or measures to reduce emissions of the criteria pollutant, or its precursors, as needed to attain the standards within timeframes prescribed by the CAA. Also, the SIP must include a program to enforce the measures specified. The state adopts the SIP only after reasonable notice and public involvement, such as a public hearing. The SIP is then sent to U.S. EPA for approval or disapproval.

Subsequent to the 1997 NAAQS revisions, the counties of Cook, DuPage, Kane, Lake, McHenry, Will, and Aux Sable and Goose Lake Townships in Grundy County, and Oswego Township in Kendall County in the Chicago area have been designated as nonattainment for both the ozone and PM_{2.5} standards. In the Metro-East area, the counties of Madison, Monroe, St. Clair, and Jersey have been designated as nonattainment for the ozone standard, and the counties of Madison, Monroe, St. Clair, and Baldwin Township in Randolph County are designated as nonattainment for PM_{2.5}. The Illinois EPA is still in the process of developing Illinois' SIP to ensure attainment and maintenance of the NAAQS established in 1997.

Nonattainment area boundaries have not yet been established pursuant to the 2006 and 2008 NAAQS revisions, but based on ambient monitoring data, it is expected that the same areas listed above will be designated as nonattainment for one or both of the standards.

The Illinois EPA considers the technical feasibility and cost effectiveness of emission controls before control measures are included in the SIP. Specific control measures must be adopted by the Illinois Pollution Control Board through a State process that provides for the consideration of alternate measures through a public process. Although the control measures adopted through the SIP process may invoke significant costs on emission sources, it is important to note that the proposed revisions to Part 243 do not impose new requirements or impose new costs to the regulated community.

G:/rob/ Part 243 Revisions TSD (Sep 08)

STATE OF ILLINOIS

SS

COUNTY OF SANGAMON

CERTIFICATE OF SERVICE

)

)

)

I, the undersigned, an attorney, state that I have served the attached <u>REGULATORY</u> <u>PROPOSAL FOR CLEAN-UP AMENDMENTS TO 35 ILL. ADM. CODE PART 243</u> and <u>APPEARANCE</u> of the Illinois Environmental Protection Agency upon the persons to whom it is directed, by placing it in envelopes addressed to:

John Therriault, Assistant Clerk Illinois Pollution Control Board James R. Thompson Center 100 West Randolph, Suite 11-500 Chicago, Illinois 60601-3218 (First Class Mail)

Virginia Yang, Deputy Legal Counsel Illinois Department of Natural Resources One Natural Resources Way Springfield, IL 62702 (First Class Mail) Matthew Dunn, Chief Division of Environmental Enforcement Office of the Attorney General 69 West Washington St., Suite 1800 Chicago, IL 60602 (First Class Mail)

and mailing it from Springfield, Illinois, with sufficient postage affixed, as indicated above.

ILLINIOS ENVIRONMENTAL PROTECTION AGENCY,

Charles E. Matoesian Assistant Counsel Division of Legal Counsel

DATED: November 25, 2008

1021 North Grand Ave. East Springfield, IL 62794-9276 217.782.5544 217.782.9143 (TDD)