Sierra Club Great Lakes Program
Toxic Air Pollution Education Series

A Narrative on Illinois' Air Pollution Rules on Toxic Air Pollution

September, 1999

Published by the
Sierra Club Great Lakes Program
Emily S. Green, Program Director
214 N. Henry Street, Suite 203; Madison, WI 53703
608-257-4994; 608-257-3513 (fax)
emily.green@sierraclub.org http://www.sierraclub.org

Prepared by Alex J. Sagady & Associates
PO Box 39, East Lansing, MI 48826
(517) 332-6971; ajs@sagady.com

Forward

This document is one in a series produced for the Sierra Club Great Lakes Program in order to facilitate and increase public understanding of toxic substance issues and the connection between toxic air pollution, Great Lakes water pollution and effects on human health and the environment.

In this document, we brief the reader on current provisions of the Illinois Pollution Control Board rules dealing with toxic air pollution . The Sierra Club Great Lakes Program hopes that these educational materials will assist citizens in their use of these regulations and stimulate discussion about potential changes in Illinois policy to more fully protect public health and the environment.

The Sierra Club Great Lakes Program wishes to acknowledge a generous grant from the Joyce Foundation of Chicago to make these efforts possible.

Note to Readers:

This document assumes understanding of some terms and some of the basic science of air quality regulation and toxicology that is explained in the Sierra Club Great Lakes Program Airborne Toxicant Education Series document entitled “An Introduction to Airborne Toxicant Evaluation and Regulation.”

Persons who are not already familiar with basic concepts of air quality regulation and toxicology should first read that introductory briefing paper before reading this document.

Table of Contents

1. Introduction

The purpose of this document is to brief the reader on Illinois' Air Pollution Rules as they relate to toxic air contaminant emissions. This Sierra Club descriptive series focuses on state-initiated air pollution policies that exceed the reach and scope of Federal hazardous air pollutant regulations.

2. History of Illinois' Regulation of Toxic Air Pollution

In Illinois, the Illinois Pollution Control Board (IPCB) is the entity with the primary responsibility to promulgate air pollution regulations. The Illinois Environmental Protection Agency (IEPA) has the primary responsibility for issuing permits, enforcing IPCB regulations and proposing new regulations to IPCB.

According to an IEPA official involved in air toxics issues, Illinois has attempted to deal with the airborne toxicant problem in a three step program. First, Illinois established regulatory authority at the state level to run federal-related hazardous air pollution control programs. At this writing, IEPA is fully delegated by the U.S. Environmental Protection Agency to administer EPA's regulations for National Emission Standards for Hazardous Air Pollutants (NESHAPS) and Maximum Achievable Control Technology (MACT) standards.[1] With development of new federal emission standards, Illinois will continue to develop new state regulations to implement these federal requirements.

Although these Illinois rules to carry out the federal program are extensive, in general they are no more stringent than the federal rules on which they are patterned. Given the focus in this document series on state-initiated airborne toxicant policy that goes beyond minimal federal compliance, this document will not discuss the Illinois rules for meeting federal minimum requirements.

The second step was the promulgation of rules specifying health-related criteria that would be used to designate Illinois Toxic Air Contaminants (ITACs) and simultaneous publication of a list of 263 designated Toxic Air Contaminants (TACs). Illinois began to develop these criteria in January, 1990 and first proposed them to the public in September, 1991. Illinois promulgated Illinois rules for Toxic Air Contaminants October 18, 1992 under part 232 of Chapter 35 of Illinois' administrative code. The health-related criteria in the rules, and their implications for the designation of ITACs, are discussed in more detail later in this document.

Also in the early 1990s, IEPA began to develop environment-related listing criteria for Illinois TACs and established a rulemaking docket with the Pollution Control Board. However, as of the July 1997 publication of the Illinois EPA regulatory agenda, IEPA

---

[1] Personal telephone conversation, Hank Naour, IEPA, April 16, 1999

apparently dropped plans to write environment-related criteria for listing ITACs, so the IPCB dropped this docket from their proceedings.

In October, 1995, IEPA officials sought to make certain changes to the ITAC list and it took until May, 1997 for these changes to be adopted. The list was increased to 347 TACs by adding all of the air contaminants regulated under the Federal Clean Air Act as federal hazardous air pollutants (HAPs) and the list of chemicals known to be present in the Great Lakes/Great Waters. The May 1997 revision also incorporated rules requiring the collection of a one time Illinois toxic air contaminant emissions inventory. This information was collected during 1997-98 throughout the state.

The third step, which hasn't yet commenced but which will apparently be initiated shortly, is to use the emission inventory information as a database to look for excessive health risks from existing ITAC emissions. IEPA would then have more detailed justification for writing potential toxic air contaminant emission control regulations based on air quality modeling and comparison of expected ambient concentrations of toxic air contaminants with screening level concentrations that are also yet to be developed.

To implement the third step, IEPA officials are now developing a work plan to assess public health threats and to look at the need for toxic air contaminant control regulations. A multi-interest stakeholder process to which environmental and citizen advocates will be invited will help guide this effort.

Recently, IPCB proposed new rules to control emissions from medical waste incinerators. Although the emission standards are largely the same as the recently issued federal rules for this source category, the proposed rules attempt to go beyond federal rules requirements by establishing pollution prevention and source reduction programs to keep certain materials out of medical waste incinerators.

Other recent rulemaking events tangentially related to airborne toxicant regulation include Illinois' proposal to establish an emissions reduction marketing system (ERMS) in the Chicago area. Although the target of such an emission reduction system is volatile organic compounds as a general pollution class, many of these materials are, in fact, toxic air pollutants. However, environmentalists and members of the public are concerned about the potential of such a system to create pollution "hot spots" associated with allowing poorly controlled emissions from certain sources. This is a particularly important concern, since there is no rule presently in place to evaluate and control residual risks from human and environmental exposure to such emissions.

3. Illinois' Statutory Provisions Affecting Toxic Air Pollution

Three specific provisions of the Illinois Environmental Protection Act are worth mentioning when it comes to statutory requirements to control emissions of toxic air contaminants in Illinois.

3.1 Airborne Toxicant Provisions

The General Assembly made an important finding in the Illinois Environmental Protection Act concerning exposure to and control of toxic air pollution :

> "The public health and welfare may be endangered by the release of toxic contaminants into the air which are carcinogenic, teratagenic, mutagenic or otherwise injurious to humans or the environment."[2]

> "Existing federal programs may not be adequate to protect the public and the environment from low-level, chronic exposure to toxic air contaminants."[3]

The General Assembly provided for publication of a list of toxic air contaminants:

> "The list published under this subsection shall include any air contaminant which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or may pose a significant threat to human health or the environment. The Agency shall propose to the Board for adoption a list which meets the requirement of this subsection."[4]

Unfortunately, this definition and its repetition in the administrative regulations as well as its interpretation by Illinois toxicologists have had the effect of seriously limiting the scope of Illinois toxic air contaminant designations. Toxicants that cause adverse physiological, neurological, endocrine disruption and pulmonary effects may potentially be excluded under this definition unless they can be demonstrated to pose a significant threat to human health or the environment..

The Assembly mandated that the Illinois Pollution Control Board adopt an emission control program:

> "The Board, pursuant to Title VII, shall adopt regulations establishing a program to control toxic contaminants released into the air in a manner that protects the

---

[2] Illinois Environmental Protection Act (IEPA) Section 9.5(a)(1)

[3] IEPA Section 9.5(a)(2)

[4] IEPA Section 9.5(c)

public health and the environment. The Agency shall propose regulations to the Board for adoption which meet the requirements of this subsection."[5]

Finally the Assembly provided a system of exempted source categories that were not covered by the toxic air contaminant provisions of the Act. These include dry cleaning operations, storage and handling of motor fuels, combustion processes using commercial fuels, incidental and minor sources defined by regulation.[6]

The exemption for combustion processes using commercial fuels is both significant and damaging to airborne toxicant control efforts because of it scope. "Commercial fuels" will include coal, refined oils, petroleum coke and residual oil; the combustion of all of these fuels may pose serious airborne toxicant issues, particularly with emissions of toxic heavy metals.

3.2 Municipal Waste Incinerator Provisions Control Technology Provision

In regard to municipal waste incineration, the General Assembly found:

"That air pollution from municipal waste incineration may constitute a threat to public health, welfare and the environment. The amounts and kinds of pollutants depend on the nature of the waste stream, operating conditions of the incinerator, and the effectiveness of emissions controls. Under normal operating conditions, municipal waste incinerators produce pollutants such as organic compounds, metallic compounds and acid gases which may be a threat to public health, welfare and the environment."[7]

"That a combustion and flue-gas control system, which is properly designed, operated and maintained, can substantially reduce the emissions of organic materials, metallic compounds and acid gases from municipal waste incineration."[8]

The statute provides for rulemaking and the setting of emission limitations for new municipal waste incinerators that burn 25 tons or more of municipal waste per day. Municipal waste is defined as:

---

[5] IEPA Section 9.5(d)

[6] IEPA Section 9.5(e)

[7] IEPA Section 9.4(a)(1)

[8] IEPA Section 9.4(a)(2)

> "'MUNICIPAL WASTE' means garbage, general household and commercial waste, industrial lunchroom or office waste, landscape waste, and construction or demolition debris."[9]

New MWI facilities must have emission limits and operating standards based on the application of Best Available Control Technology (BACT).[10] BACT is defined in the same manner as the definition of BACT in the Prevention of Significant Deterioration section of the Federal Clean Air Act[11].[12] A "new municipal waste incinerator" is defined as one that is initially permitted for development or construction after January 1, 1986.[13]

Under the statute, IPCB was required to issue regulations over municipal waste incineration within one year of the effective date of the amendatory Act of 1985. The regulations would have had to address the pollutants hydrogen chloride as an "acid gas," arsenic, cadmium, mercury, chromium, nickel and lead under the definition of "heavy metals," and polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans and polynuclear aromatic hydrocarbons under the definition of "organic materials."[14] IPCB never issued specific municipal waste incineration rules to comply with the statutory requirement, although Illinois' adoption of New Source Performance Standards for large incinerators [greater than 250 tons per day per combustion unit] would address the control requirements for the largest incineration units.

3.3 Pollution Control Facility Siting Provisions

Although provisions of the Illinois Environmental Protection Act covering the siting of "pollution control facilities" do not directly relate to the technicalities of airborne toxicant emissions, citizens will nevertheless find such provisions useful for addressing the siting of facilities with potential airborne toxicant emissions.

---

[9] IEPA Section 3.21

[10] IEPA Section 9.4(b)

[11] The Federal Clean Air Act defines BACT as...."...the maximum degree of reduction for each pollutant *** which the [permitting authority], on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable ***" "***" indicates deleted text to provide for brevity.

[12] IEPA Section 9.4(e)

[13] IEPA Section 9.4(f)

[14] IEPA Section 9.4(d)

"Pollution control facility" is defined to be:

> "....any waste storage site, sanitary landfill, waste disposal site, waste transfer station, waste treatment facility or waste incinerator. This includes sewers, sewage treatment plants, and any other facilities owned or operated by sanitary districts organized under the Metropolitan Water Reclamation District Act."[15]

The statute requires that the court board of the county or the governing body of the municipality in which a pollution control facility is proposed for siting "shall approve or disapprove the request for local siting approval for each pollution control facility which is subject to such review. The applicant must submit a detailed application to demonstrate compliance and local siting approval shall be granted only if the proposed facility meets several detailed approval criteria.[16]

The statute also provides for notice to adjacent property owners, submission of public comments and a mandatory public hearing on a proposed decision and final written decisions.[17]

Citizens and communities involved in fighting certain types of pollution control facilities will find these procedural regulations to be useful in such efforts.

4 Illinois Airborne Toxicant Regulations

Regulations at 35 Ill. Adm. Code Part 232 provide definitions, establish the substantive criteria for listing Illinois Toxic Air Contaminants (TACs), provide a list of TACs and a list of carcinogens, procedures for amending the TAC list, and provide regulations for a one-time emission inventory for Illinois TACs.

At present no emission control regulations, technology-based emission control requirements, risk assessment procedures, acceptable risk levels or acceptable ambient air concentrations for toxic air pollutants have been promulgated under this section of the Illinois air pollution regulations. In addition, as noted above, regulations covering emissions from municipal waste incinerators have also not been promulgated under this

---

[15] IEPA Section 3.32; Note however that several types of facilities are specifically exempted from coverage as a pollution control facility in subsequent provisions of the same section. A detailed discussion of these exempted facilities is outside of the scope of this discussion. The reader is referred to the text of the statute for a detailed review of the exemptions.

[16] IEPA Section 39.2(a)(I-ix)

[17] IEPA Section 39.2(b-o)

section. Therefore, despite findings in the Illinois Environmental Protection Act about the danger of toxic air pollution and the potential inadequacy of federal controls, Illinois has not at all reduced toxic air pollution beyond what federal regulations require.

Although Section 9.5(c) of the Illinois Environmental Protection Act requires the issuance of regulations demonstrating environmental criteria for listing toxic air contaminants, no such regulations are provided in the 35 Ill Adm. Code Part 232 regulations and the IPCB dissolved a docket providing for this rulemaking since the IEPA dropped the matter from its regulatory agenda.

4.1 Exemptions from the Rules

As provided in the statute, certain facilities have been exempted from the rules. These include dry cleaning operations, storage and handling of motor fuels, combustion processes using only commercial fuels, including internal combustion engines (cars, landfill gas engines, stationary turbine generators, etc) and incidental/minor sources defined by rule.[18] "Commercial fuel" is defined to include:

> "Any fuel offered for final sale for use in combustion processes; any gaseous or liquid fuel generated as a by-product at a source for which the source has been issued an operating permit to use such fuel internally in combustion processes, including internal combustion engines; or any waste derived fuel for which an operating permit has been issued and which represents no more than five percent (0.05) by weight on a daily basis of total fuel used in combustion processes by a source."

As a result of the commercial fuel exemption, mercury emissions from electric utility plants and toxic air pollutants from coke oven combustion stacks would, for example, be exempted under the rule. This means that these source categories, along with other similar combustion processes using commercial fuels, would be exempted from the current airborne toxicant emission reporting requirements and from any future control and risk assessment regulations in the absence of a change to the contrary. As such, very large emissions of toxic air contaminants will remain unregulated and unreported if these exemptions continue in the Illinois regulations.

4.2 Determination of a Toxic Air Contaminant

The rules reiterate the statutory definition of a toxic air contaminant:

---

[18] 35 Ill. Adm. Code 232.130 (a-d)

> "A toxic air contaminant is a contaminant which the Board finds may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or may pose a significant threat to human health."[19]

It appears that the Board can find that a substance is a Toxic Air Contaminant under a general authority interpretation of the above language. However, if a chemical substance is rated according to a scoring system in the rule, the rule provides that the board shall find that a contaminant is a Toxic Air Contaminant upon a determination that a substance has a "Toxicity Score" of 3 or higher as prescribed in 35 Ill. Adm Code 232.310. The toxicity scoring system is described in a subsequent section of this document.

If the contaminant is a carcinogen according to 35 Ill Adm. Code 232.320 and the Board finds the contaminant meets the statutory definition, then the substance is deemed a toxic air contaminant.[20]

Other rule provisions indicates that any person can petition the Board to list or delist a toxic air contaminant. The petitioner can use the the statutory definition of a "toxic air contaminant" in their petition to the IPCB;. alternatively, the petitioners can use the scoring system in the rule to make a demonstration supporting their listing or delisting effort. The criteria for listing and/or delisting a chemical as an Illinois Toxic Air Contaminant are listed in the table below:

Required Showing for Listing and/or Delisting a Toxic Air Contaminant
The toxicity score or carcinogen classification is incorrectly determined pursuant to Subpart C procedures
The Subpart C procedure for determining a toxicity score or carcinogen classification is not appropriate for the contaminant
The Subpart C procedure for determining a toxicity score or carcinogen classification is incorrectly applied for the contaminant

[19] IEPA Section 9.5(c) and 35 Ill Adm. Code Part 232.200(b)

[20] 35 Ill Adm. Code Part 232.200(c)

The studies used are inadequate for the purposes of the Subpart C procedure
Additional or new studies should be considered in a determination to list or delist a contaminant

4.3 Carcinogenic Substances

The regulation lists substances considered to be carcinogens in Appendix C. These are cancer-causing materials as determined in the year indicated in the table below by the agencies indicated with the determination as listed:

Reviewing Agency	**Type of Determination**	**Year of Finding**
ACGIH	Category A1 or A2 Carcinogen	1989
IARC-WHO	Category 1 or 2A/2B Carcinogen	1987
HHS-NTP	"Human Carcinogen" or "Anticipate Human Carcinogen	1989
EPA-IRIS/FR	Category A or B1/B2 Carcinogen in IRIS or in a Final Rule published in the Federal Register by EPA	1989

Although the rule was last amended in 1997, no effort was made in the rule to provide more recent carcinogenicity references to these agencies.

4.4 Procedures for Determining the "Toxicity Score"

In order to trigger the mandatory pollutant listing as a "toxic air contaminant" under the Illinois regulation for non-carcinogens, a scoring system is specified in the rule. The "toxicity score" can be shown mathematically as:

Toxicity Score = [Lethality Score + Chronic Toxicity Score]

Where the "chronic toxicity score" is defined as follows:

Chronic Toxicity Score = [Lowest Toxic Dose Score X Severity of Effects Score]

All of these concepts are explained in sections below.

4.4.1 Acute Lethality Score

The Acute Lethality Score is derived under the rule from acute toxicology tests solely on rats. There is no flexibility for showing acute toxicity in other species. The rule specifies that acute inhalation toxicity tests should be used if such results are available. The test is for the Lethal Concentration at which 50% of the test animals die or the LC50. The acute lethality score is then determined as follows:

Inhalation Concentration Acute Lethality Score for LC50s in milligrams per cubic meter (mg/m3)	
Less than: 500 mg/m3	Score: 3
500-4,999 mg/m3	Score: 2
5,000-50,000 mg/m3	Score: 1
Greater than 50,000 mg/m3	Score: 0

If an LC50 is not available, the Lethal Dose at which 50% of the test animals die can be used. This is the LD50 and is a measure of acute oral route toxicity.

Oral Dose Acute Lethality Score for LD50s in milligrams per kilogram of body weight mg/kg	
Less than 50 mg/kg	Score: 3
50 - 499 mg/kg	Score: 2
500 - 5,000 mg/kg	Score: 1
Greater than 5,000 mg/kg	Score: 0

Since only acute toxicity for rats can be used, the rule may have the effect of not using the best data available where other species may indicate a more toxic effect for which more concern is warranted.

4.4.2 Lowest Toxic Dose Score

The Lowest Toxic Dose Score is a factor based on the lowest dose in a chronic toxicity test that causes an observable adverse health effect in units of milligrams per kilogram of body weight per day. For chronic toxicity studies using inhalation or drinking water routes, the rule provides conversion factors to arrive at a comparable oral dose factor. The Lowest Toxic Dose Score is as shown below:

Lowest Toxic Dose Score in milligrams per kilogram of body weight per day	
Less than 5 mg/kg/day	Score: 1
5-50 mg/kg/day	Score: 2/3
Greater than 50 mg/kg/day	Score: 1/3

4.4.3 Severity of Effects Score, Organ Categories and Levels of Effect

The Severity of Effects Score is determined by a matrix by looking at the target organ affected in toxicity tests and the type of effect occurring in that organ. Classifiers are provided for all organs as shown below:

Category	Organ Criteria	Sample Organ List
I	Organs, the impairment or loss of which is fatal or usually cannot be compensated for by the body; gonads, the loss of which prevents the transmission of genetic material; and, adverse reproductive outcome including stillbirth, miscarriage, or reduced litter size (animal studies).	Lungs, Heart, Brain, Spinal Cord, Kidneys, Liver, Bone Marrow, and Gonads.
II	Organs, the impairment or loss of which may be fatal, but which can be compensated for by drug or replacement therapy; adverse effect on an immune function which may be life threatening; changes in the composition or function of blood constituents which may be life threatening; and, certain fetotoxic effects including premature birth, reduced birth weight, and reduced morphometric parameters.	Adrenals, Thyroids, Parathyroids, Pituitary, Pancreas, Esophagus, Stomach, Small Intestine, Large Intestine, Lymph Nodes, Thymus, Trachea.
III	Organs, the impairment or loss of which is not life threatening but may result in functional or emotional handicaps; adverse effect on an immune function which is not life threatening; changes in composition or function of blood which are not life threatening but may result in functional handicaps.	Organs include, but are not limited to: Oviducts, Epididymides, Uterus, Prostrate, Seminal Vesicles, Ductus Deferens, Penis, Vagina, Eyes, Bone, Nose, Peripheral Nerves, Muscles, Urinary Bladder, Blood Vessels, Ears, Gallbladder, Larynx, Mammary Glands, Salivary Glands, Skin, Spleen, Tongue, Teeth, Ureter, Urethra, Pharynx.

Levels of effect are categorized into 4 types as shown below based on results shown in the chronic toxicity testing:

Descriptor	Description

Serious Irreversible (SI)	A serious effect is an incapacitating condition or a condition which significantly contributes to an increase in mortality; an irreversible effect is one that is permanent or would require medical treatment to correct
Serious Reversible (SR)	A serious effect is an incapacitating condition or a condition which significantly contributes to an increase in mortality; a reversible effect is a temporary effect
Non-serious Irreversible (NI)	A non-serious effect is a non-incapacitating condition or a condition which is unlikely to contribute to an increase in mortality; an irreversible effect is one that is permanent or would require medical treatment to correct
Non-serious Reversible (NR)	A non-serious effect is a non-incapacitating condition or a condition which is unlikely to contribute to an increase in mortality; a reversible effect is a temporary effect

Once the chronic toxicity testing results is known and the target organ is classified as noted above and the Level of Effect Descriptor is determined as shown above, the Severity of Effect Score is determined according to the following chart:

Level of Effect Descriptor	**Organ Type I**	**Organ Type II**	**Organ Type III**
SI	6	5	4
SR	5	4	3
NI	4	3	2
NR	3	2	1
No Observed Effect	0	0	0

When a chronic toxicity test show an adverse health effect on multiple organs within the same category at the lower observed adverse effect level, the Severity of Effects Score is increased by a value of 1. In no event can the Severity of Effects Score be greater than 6.

The provisions for level of effect scores taken together with target organ classification potentially discount concerns on serious toxic effects with highly

toxic compounds if such effects are manifest in what the Illinois' regulation considers to be more expendable target organ systems.

4.5 Emission Reporting Requirement

A one-time toxicant emission reporting requirement is the only substantive requirement presently imposed on dischargers of toxic air contaminants under the present Illinois Rule 232 program. Although the Rule 232 lists several toxic air contaminants in Appendix A, the reporting requirement applies only to 115 Illinois Toxic Air Contaminants (ITACs), which are defined as follows:

> "'Illinois Toxic Air Contaminant" (ITAC) means any toxic air contaminant listed pursuant to 35 Ill. Adm Code 232, excluding, specifically: coke over gas; any hazardous air pollutant (HAP) now or hereafter listed under Section 112(b) of the Clean Air Act (CAA) (1990); and any pollutant or contaminant listed as a compound of concern under the Great Waters and Coastal Waters Program under Section 112(m) of the CAA."[21]

The reporting requirement only applies to a source that manufacturers, processes or imports 25,000 lbs or more of any individual ITAC in any calendar year or otherwise uses 10,000 lbs of any individual ITAC in any calendar year. The entities required to report are subject to the exemptions previously discussed above, including the combustion process/commercial fuel exemption and the several pesticide exemptions.. Emission reports were to be filed by October 1, 1997 for the calendar year 1996. Sources that become subject to the emission report requirement in the future must file by July 1 of the year following the year they became subject to the rule.

Sources do not have to do stack tests to justify their reports but may use engineering and emission factor calculations to justify their reported results. Sources may submit EPA's Emergency Planning and Community Right to Know Act Form R in lieu of the Illinois report required.

If sources have de minimis emissions, they do not have to report such emissions. Emissions from an emission unit or fugitive emissions of less than 0.5 tons per year are considered de minimis. Certain low weight percentage discharges are considered de minimis.

---

[21] 35 Ill. Adm. Code Part 232.120 Definitions

5 Conclusion

Illinois' has achieved little progress in establishing regulatory controls and evaluation of toxic air contaminants over and above minimum federal requirements. The level of state-initiated toxic air contaminant controls in Illinois has been far outpaced by some other Great Lakes states, such as Michigan and Wisconsin.

Current regulatory exemptions don't recognize modern understanding of the effects of combustion processes on emissions of toxic air contaminants and their environmental fate.

The effect of Illinois' definition of toxic air contaminant and aspects of Illinois' scoring system for selecting such contaminants inappropriately discounts serious potential effects of toxic air contaminants on human health that are not associated with death and serious illness.

Finally, Illinois has forgone important information gathering opportunities by not taking initiatives to collect toxic air contaminant information from sources exempt under the rule and by failing to provide more detailed reporting than is presently required under EPA's toxic release program.