

ILLINOIS POLLUTION CONTROL BOARD
June 16, 1983

IN THE MATTER OF:)
)
MAJOR STATIONARY SOURCES) R81-16
CONSTRUCTION AND MODIFICATION) Docket B
PART 203 OF CHAPTER 2:)
AIR POLLUTION)

PROPOSED ORDER. SECOND NOTICE

ORDER OF THE BOARD (by J. D. Dumelle):

It is the Order of the Pollution Control Board that Chapter 2: Air Pollution Regulations be amended by the addition of Part 203: Major Stationary Source Construction and Modification, as follows:

TITLE 35: ENVIRONMENTAL PROTECTION

SUBTITLE B: AIR POLLUTION

CHAPTER I: POLLUTION CONTROL BOARD

SUBCHAPTER a: PERMITS AND GENERAL PROVISIONS

PART 203

MAJOR STATIONARY SOURCES CONSTRUCTION AND MODIFICATION

SUBPART A: GENERAL PROVISIONS

Section 203.101 Definitions

Unless a different meaning of the term is clear from its context, the definitions of terms used for this Part shall be the same as those used in the Pollution Control Board Rules and Regulations, Chapter 2: Air Pollution.

Section 203.102 Actual Emissions

The actual rate of annual emissions of a pollutant from an operational emission source for a particular date equal to the mean rate at which the emission source actually emitted the pollutant during the two-year period which immediately precedes the particular date and which is determined by the Illinois Environmental Protection Agency (Agency) to be representative of normal emission source operation; however:

- a) The Agency shall allow the use of a different time period upon a determination that it is more representative of normal emission source operation. The burden shall be on the applicant to demonstrate that another time period is more representative. Actual emissions shall be calculated using the emission source's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
- b) If the Agency determines that there is inadequate information to determine actual emissions as indicated in the preceding paragraphs, the Agency shall use the potential to emit of the emission source.

Section 203.103 Allowable Emissions

- a) The emission rate of an emission source is calculated using the maximum rated capacity of the emission source (unless the emission source is subject to permit conditions or other enforceable limits which restrict the operating rate, or hours of operation, or both) and the more stringent of the following:
 - 1) the applicable emission standard or limitation contained in this Chapter, including those with a future compliance date; or
 - 2) the emissions rate specified as a permit condition including those with a future compliance date.
- b) The allowable emissions may be expressed as a permit condition limiting annual emissions or material or fuel throughput.
- c) Allowable emissions shall include a reasonable estimate of emissions in excess of applicable standards during start-up, malfunction, or breakdown, as appropriate, only if the provisions of Rule 105 of this Chapter have been complied with.
- d) If an emission source is not subject to an emission standard under provision (a) and is not conditioned pursuant to provision (b), the allowable emissions shall be the source's potential to emit.

Section 203.104 Available Growth Margin

The difference between total allowable emissions consistent with reasonable further progress and projected actual emissions in a nonattainment area.

Section 203.105 Commence

As applied to construction of a major stationary source or major modification means that the owner or operator has:

- a) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- b) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

Section 203.106 Construction

Any physical change or change in the method of operation, including but not limited to fabrication, erection, installation, demolition, or modification of an emissions source, which would result in a change in actual emissions.

Section 203.107 Emission Baseline

The starting point or reference level from which increases and decreases in emissions are measured. The rules governing determination of emission offsets, calculations of net emission increases, and evaluation of alternative control strategies specify the particular emission baseline that applies for that purpose.

Section 203.108 Emission Offset

A creditable emission reduction used to compensate for the increase in emissions resulting from a new major source or a major modification.

Section 203.109 LAER

Abbreviation for lowest achievable emission rate.

Section 203.110 Potential to Emit

The maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

Section 203.111 Reasonable Further Progress

Annual incremental reductions in the emissions of the applicable air pollutant sufficient to provide for attainment of the National Ambient Air Quality Standards as expeditiously as practicable, in accordance with Part D of the Clean Air Act 42 U.S.C. 7501 et seq. and 40 CFR 51.15 adopted thereunder.

Section 203.112 Secondary Emissions

Emissions which occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purpose of this Part, secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions may include, but are not limited to emissions from any reasonably foreseeable offsite support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification.

Section 203.113 Public Participation

At the initiation of a permit application pursuant to Subpart B, the Agency shall provide at a minimum, notice of the same and a comment period pursuant to the Agency public participation procedures.

Section 203.114 Severability

Notwithstanding Rule 113 of this Chapter, if any provision of Part 203 is stayed or declared invalid by a final order, no longer subject to appeal, of any court of competent jurisdiction, then the entirety of Part 203 shall be deemed stayed or invalidated until the stay is lifted or the Pollution Control Board acts to revalidate the Part.

SUBPART B: MAJOR STATIONARY EMISSIONS SOURCES IN NONATTAINMENT AREAS

Section 203.201 Prohibition

No person shall cause or allow the construction of a new major stationary source or major modification in an area designated as nonattainment as defined at Section 171(2) of the Clean Air Act (42 U.S.C. 7501.2) with respect to that pollutant, except as in compliance with this Part for that pollutant.

Section 203.202 Preconstruction Permit Requirement and Application

- a) A preconstruction permit designating the proposed construction as a new major source or major modification is required prior to:
 - 1) entering into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of a source to be completed within a reasonable time;
 - 2) initiating physical on-site construction activities which are permanent in nature including but not limited to installation of building supports and foundations, laying underground pipework and construction of permanent storage structures; or
 - 3) initiating a change in operations which may be subject to this Subpart and Subpart C.
- b) Applications for preconstruction permits shall contain sufficient information to demonstrate that the source constitutes or does not constitute a new major source or major modification pursuant to this Subpart.

Section 203.203 Construction Permit Requirement and Application

- a) A construction permit is required prior to having begun or having caused to begin a continuous program of actual on-site construction or change in operations of the source. Such permit shall contain enforceable conditions satisfying the requirements Subparts B and C.
- b) Applications for construction permits required under this Section shall contain sufficient information to demonstrate compliance with Rule 103, and the requirements of this Subchapter including, but not limited to, Subpart C.

Section 203.204 Duration of Construction Permit

A permit to construct shall become invalid if the permittee has not commenced construction within 18 months after receipt of such permit, construction is discontinued for a period of 18 consecutive months or more, or construction is not completed within a reasonable time. However, this provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must begin actual construction within 18 months of the dates contained in the permit application.

Section 203.205 Effect of Preconstruction and Construction Permits

Neither a preconstruction nor a construction permit shall relieve any person of the responsibility to comply fully with applicable provisions of state, local or federal law.

Section 203.206 Major Stationary Emission Source

A major stationary emission source that is major for organic material shall be considered major for ozone. The following constitutes a major stationary emission source:

- a) Any stationary emission source of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any pollutant.
- b) Any physical change that would occur at a stationary emission source not qualifying under paragraph (a) as a major stationary emission source, if the change would constitute a major stationary emission source by itself.
- c) The reconstruction of a stationary emission source will be treated as the construction of a new major stationary source if the fixed capital cost of new components exceeds approximately half of the fixed capital cost of an entirely new stationary source. Determining whether reconstruction will occur is based on the following:
 - 1) fixed capital cost shall mean the capital needed to provide all the depreciable components;
 - 2) the fixed capital cost for the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;
 - 3) the estimated life of the source after the replacements compared to the life of a comparable entirely new source; and
 - 4) the extent to which the components being replaced cause or contribute to the emissions from the source.

Section 203.207 Major Modification of a Source

Any physical change, or change in the method of operation of a stationary emission source that would result in a significant net emissions increase of any pollutant, except that a physical change or change in the method of operation shall not include any activity listed below. Any net emissions increase that is

significant for organic material shall be considered significant for ozone.

- a) Routine maintenance, repair, and replacement of components which do not constitute reconstruction pursuant to Section 203.206(c).
- b) Use of an alternative fuel or raw material by reason of any order under Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. 791, the Power Plant and Industrial Fuel Use Act of 1978, 42 U.S.C. 8301 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act, 16 U.S.C. 791, et seq.
- c) Use of an alternative fuel by reason of an order or rule under Section 125 of the Clean Air Act, 42 U.S.C. 7425.
- d) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste.
- e) Use of an alternative fuel or raw material by a stationary source which:
 - 1) it was capable of accommodating before December 21, 1976 unless such change would be prohibited under any enforceable permit condition which was established after that date pursuant to 40 CFR 52.21; or
 - 2) is approved for use under any permit issued pursuant to 40 CFR 52.21 or this Chapter.
- f) An increase in the hours of operation or in the production rate, unless such change would be prohibited under any enforceable permit condition which was established after December 21, 1976 pursuant to 40 CFR 52.21 or this Chapter.
- g) Any increase in emissions of organic material due to the temporary shutdown of a control device during seasonal periods as allowed by this Chapter.
- h) Any change in ownership at a stationary source.

Section 203.208 Net Emission Determination

A net emissions increase is the amount by which the sum of any increase in actual emissions from a particular physical change or

change in method of operation at an emission source, and any other increases and decreases in actual emissions at the emission source that are contemporaneous with the particular change and are otherwise creditable, exceeds zero. The following steps determine whether the increase or decrease in emissions is available.

- a) An increase or decrease in actual emissions is contemporaneous only if it occurs between the date that an increase from a particular change occurs and the date five years before a timely and complete application is submitted for the particular change. In the case of an increase, it must also occur after either April 24, 1979 or the date the area is designated by United States Environmental Protection Agency as a nonattainment area for the pollutant, whichever is more recent;
- b) An increase or decrease in actual emissions is creditable:
 - 1) only if no other permit has been issued, and is still in effect when the particular change occurs, which relied on the same increase or decrease in actual emissions;
 - 2) in the case of a shutdown of an emission source, only to the extent that it is being replaced by a similar source; and
 - 3) only to the extent the new and old levels differ.
- c) A decrease in actual emissions is creditable to the extent that:
 - 1) it is enforceable at and after the time that actual construction on the particular change begins;
 - 2) it has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change;
 - 3) that the old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions; and
 - 4) it is demonstrated by the Agency not to have been previously relied on for demonstrating

attainment on reasonable further progress in the nonattainment area which the physical change will impact.

Section 203.209 Significant Emissions Determination

A net emission increase in the pollutant emitted is significant if the rate of emission is equal to or in excess of the following:

- a) Carbon monoxide: 100 tons per year (tpy)
- b) Nitrogen oxides: 40 tpy
- c) Sulfur dioxide: 40 tpy
- d) Particulate matter: 25 tpy
- e) Ozone: 40 tpy of organic material
- f) Lead: 0.6 tpy
- g) Asbestos: 0.007 tpy
- h) Beryllium: 0.0004 tpy
- i) Mercury: 0.1 tpy
- j) Vinyl chloride: 1 tpy
- k) Fluorides: 3 tpy
- l) Sulfuric acid mist: 7 tpy
- m) Hydrogen sulfide (H_2S): 10 tpy
- n) Total reduced sulfur (including H_2S): 10 tpy
- o) Reduced sulfur compounds (including H_2S): 10 tpy

Section 203.210 Relaxation of a Source-Specific Limitation

Except those modifications exempted pursuant to Section 203.207, at such time that a particular source or modification becomes a major stationary source or major modification by virtue of a relaxation in any enforceable limitation which establishes a specific standard for that source to emit a pollutant, this Subpart shall apply to the source or modification as though construction had not yet commenced.

SUBPART C: REQUIREMENTS FOR MAJOR STATIONARY SOURCES IN
NONATTAINMENT AREAS

Section 203.301 Lowest Achievable Emission Rate

- a) For any source, lowest achievable emission rate (LAER) will be the most stringent rate of emissions based on the following:
 - 1) The lowest emission limitation which is contained in the implementation plan of any state for such class or category of stationary source, unless it is demonstrated that such limitation is not achievable;
 - 2) The lowest emission limitation which is achieved in practice or is achievable by such a class or category of stationary source; or
 - 3) The applicable new source performance standard contained in Part IX of this Chapter.
- b) The owner or operator of a new major stationary source shall demonstrate that the control equipment and process measures applied to the source will produce LAER.
- c) The owner or operator of a major modification shall demonstrate that the control equipment and process measures applied to the modification will produce LAER at each emissions source at which a significant increase in emissions of the pollutant has occurred or would occur as a result of a physical change or change in the method of operation.
- d) The owner or operator shall provide a detailed showing that the proposed emission limitations constitute LAER. Such demonstration shall include:
 - 1) a description of the manner in which the proposed emission limitation was selected, including a detailed listing of information resources,
 - 2) alternative emission limitations, and
 - 3) such other reasonable information as the Agency may request as necessary to determine whether the proposed emission limitation is LAER.

Section 203.302 Maintenance of Reasonable Further Progress and Emission Offsets

- a) For particulate matter, sulfur dioxide, nitrogen oxides, or carbon monoxide emissions, the owner or operator of a new major source or major modification shall demonstrate that the source or modification will not interfere with reasonable further progress by meeting one of the following requirements:
 - 1) Providing equal or greater emission offsets for the allowable emissions from the source or the net increase in emissions from the modification, and demonstrating that actual average air quality will be improved in the nonattainment area and that at no location will the impact exceed the significant air quality impact levels contained in Section 203.304(d);
 - 2) Demonstrating that air quality in the nonattainment area will be improved at every location affected by the new major source or modification, barring the use of dispersion enhancement techniques; or
 - 3) Providing in the immediate vicinity of the source or modification actual emission offsets at a ratio of 1.25:1 or greater (i.e., for each ton of new allowable emissions, there shall be at least 1.25 tons of actual emission offsets) provided that stack or emission parameters do not indicate a significant adverse effect on air quality in accordance with Section 203.304(d), due to the operation of the source or modification.
- b) For organic material emissions, the owner or operator of a new major source or major modification shall demonstrate that it does not interfere with reasonable further progress by providing actual emission offsets in excess of the allowable emissions from the new source or the net increase in emissions from the modification.

Section 203.303 Baseline and Emission Offsets Determination

- a) An emission offset must be obtained from a source in operation prior to the permit application for the new or modified source. Emission offsets can be obtained from stationary or fugitive sources.
- b) The emission offsets provided must be:

- 1) of a type with approximately the same qualitative significance for public health and welfare as that attributed to the increase in a particular change;
 - 2) in the case of a shutdown, it must have occurred since April 24, 1979 or the date the area is designated by the United States Environmental Protection Agency as a nonattainment area for the pollutant, whichever is more recent, and the shutdown source is being replaced by a similar new source; and
 - 3) enforceable by permit.
- c) The baselines for determining emission offsets are as follows:
- 1) For particulate matter (TSP), sulfur dioxide (SO₂), nitrogen oxide (NO_x) and carbon monoxide (CO), the applicable emission limit contained in this Chapter. If this rate is greater than the uncontrolled emission rate, the baseline shall be the uncontrolled rate.
 - 2) Except for organic material, if no emission rate is contained in this Chapter, the baseline shall be the actual emission rate.
 - 3) The baseline for organic material shall be the lesser of the actual or allowable emission rate.
- d) The location of emission sources providing the emission offsets must be
- 1) for TSP, SO₂, NO_x, or CO, these sources must be significant contributors to or located in the nonattainment area affected by the new or modified source; or
 - 2) for organic material, these sources must be located within 100 miles of the new or modified source. If the applicant can demonstrate using generally accepted air quality models, that the effect of the proposed offsets on air quality is at least as great as if the source of the offsets was within the 100 mile radius, these offsets shall be acceptable.

Section 203.304 Exemptions from Emissions Offset Requirement

- a) The Agency shall allow the use of all or some portion

of the available growth margin to satisfy Section 203.303 if:

- 1) the owner or operator can show that possible sources of emission offsets were investigated and none were reasonably available at that time, and
 - 2) the owner or operator agrees to accept permit conditions on all future permits for the source or modification designed to provide the required emission offset at the earliest future time such offsets become reasonably available.
- b) Section 203.302 shall not apply to a major stationary source or major modification if the emissions from the source, or the net emissions increase from the modification would be temporary, that is, existing for a period of time less than two years.
- c) Section 203.302(a) shall not apply to a major stationary source or major modification if an air quality analysis shows it is located in a portion of a given nonattainment area where the air quality standards are not being violated and it will not cause an impact in the area in which air quality standards are being violated greater than the significant air quality impact levels in subparagraph (d). Such an analysis shall be based upon dispersion modeling and air quality monitoring performed by the Agency or in accordance with Agency procedures. The date when the emission offset requirements may be restricted to a limited part of the nonattainment area is the date that such analysis is completed by the Agency or the date such analysis is approved by the Agency, and redesignation of the area where the major source or major modification is to be located is under federal review.
- d) If the emissions from a major stationary source or major modification are demonstrated to be greater than the following levels, exemption pursuant to subparagraph (c) is not available for the major stationary source or major modification.

<u>Pollutant</u>	<u>Averaging Time</u>				
	<u>Annual</u>	<u>24-Hour</u>	<u>8-Hour</u>	<u>3-Hour</u>	<u>1-Hour</u>
SO ₂	1.0 ug/m ³	5 ug/m ³		25 ug/m ³	
TSP	1.0 ug/m ³	5 ug/m ³			
NO _x	1.0 ug/m ³				
CO			0.5 mg/m ³		2 mg/m ³

- e) Section 203.302(a) shall not apply to a major stationary source or major modification for particulate matter if it will be located in an area which meets the following criteria:
- 1) the area is an attainment area for the primary total suspended particulate air quality standard;
 - 2) the area is lacking reasonably available emission offsets;
 - 3) the air quality of the area is dominated by agricultural and related fugitive pollutant sources;
 - 4) the area lacks major industrial development; and
 - 5) the area is of a low urban population density.

Section 203.305 Compliance by Existing Sources

The owner or operator shall demonstrate that all major stationary sources which he or she owns or operates (or which are owned or operated by any entity controlling or controlled by, or under common control with the owner or operator) in Illinois are in compliance, or on a schedule for compliance, with all applicable state and federal air pollution control requirements.

Section 203.306 Analysis of Alternatives

For emission of organic material or carbon monoxide, the owner or operator shall demonstrate that benefits of the new major source or major modification significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification, based upon an analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source.

SUBPART D: RESERVED

SUBPART E: RESERVED

SUBPART F: OPERATION OF A MAJOR STATIONARY SOURCE
OR MAJOR MODIFICATION

Section 203.601 Lowest Achievable Emission Rate Compliance Requirement

No person shall cause or allow the operation of a new major stationary source or major modification subject to the construction requirements of Subpart C, except as in compliance with applicable LAER provisions established pursuant to Section 203.301 for such source or modification.

Section 203.602 Emission Offset Maintenance Requirement

No person shall cause or allow the operation of a new major stationary source or major modification which is required to demonstrate that it would not interfere with reasonable further progress, or which must include emission offsets in a demonstration pursuant to Sections 203.302 and 203.303 without maintaining those emission offsets or other equivalent offsets.


Section 203.603 Ambient Monitoring Requirement

The owner or operator of a new stationary source or major modification shall conduct such ambient monitoring as the Agency determines is reasonably necessary to establish the effect of the emissions from the source or modification on ambient air quality in the area.

This Order conforms to the Opinion adopted this same day. These regulations are directed to Second Notice.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Order was adopted on the 16th day of June, 1983 by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board