

Department of Environmental Quality
Air Quality Division
OZONE NONATTAINMENT IMPLEMENTATION AND
NEW SOURCE REVIEW
QUESTION AND ANSWER DOCUMENT
Updated Version
July 28, 2004

1. When did the new nonattainment designations become effective?

The new ozone 8-hour nonattainment designations became effective on June 15, 2004.

2. What are the classifications for nonattainment?

Nonattainment Area Name	Counties	Classification*	Maximum Attainment Date (from June 15, 2004)
Detroit-Ann Arbor	Livingston Macomb Monroe Oakland St. Clair Washtenaw Wayne Lenawee	Moderate	June 2010
Flint	Genesee Lapeer	Unclassified	June 2009
Grand Rapids	Ottawa Kent	Unclassified	June 2009
Muskegon	Muskegon	Moderate	June 2010
Allegan	Allegan	Unclassified	June 2009
Huron	Huron	Unclassified	June 2009
Kalamazoo-Battle Creek	Calhoun Kalamazoo Van Buren	Unclassified	June 2009
Lansing-East Lansing	Clinton Eaton Ingham	Unclassified	June 2009
Benton Harbor	Berrien	Unclassified	June 2009
Benzie	Benzie	Unclassified	June 2009
Cass	Cass	Moderate	June 2010
Mason	Mason	Unclassified	June 2009

*The U.S. Environmental Protection Agency (EPA) Phase 1 Implementation Rule refers to areas classified under Subpart 1 as “basic.” For the purpose of Rule 220, “basic” means “unclassified.”

Note: the Department of Environmental Quality (DEQ) did submit a request and demonstration to the EPA on July 15, 2004, to “bump down” the classification for Cass, Muskegon, and the Detroit-Ann Arbor areas from moderate to marginal. The EPA is expected to act on these requests by September 15, 2004.

3. When will nonattainment new source review (NSR) be required in newly designated counties?

Permits issued on and after the effective date (June 15, 2004) are subject to nonattainment requirements. Michigan's Air Pollution Control Rule 336.1220 (Rule 220) outlines the NSR requirements applicable in nonattainment areas.

4. If a permit application is filed before the effective date of the designations, but the permit is issued after that date, which permitting rules apply: attainment or nonattainment?

Since the permit issuance date is after the effective date of the designations, nonattainment NSR would apply (EPA Guidance memos – March 11, 1991 and September 3, 1992). This is true regardless of when the application was submitted, made technically complete, and/or the public comment period was announced.

5. What are the thresholds of volatile organic compounds (VOCs) and nitrogen oxides (NOx) for new sources and modifications in nonattainment areas?

For both pollutants, the threshold for a new source located in a nonattainment area is 100 tons per year and 40 tons per year for a modification.

6. For the designated ozone nonattainment areas, will it be necessary for major new sources (or major modifications) of NOx to obtain emission offsets for NOx, given that the states are now operating under a NOx budget pursuant to the NOx State Implementation Plan (SIP) Call?

Offsets are required. Since one of the criteria for offsets is that they cannot be generated as a result of other regulations, it appears that any reductions realized from the NOx SIP Call cannot be used for offsets.

7. Will the offset waiver procedure still be available to states upon a demonstration that NOx reductions in a particular area will be counterproductive?

Rule 220 requires major NOx sources in a moderate ozone nonattainment area to obtain offsets prior to construction, unless a NOx waiver has been granted. For the 1-hour ozone standard, the EPA granted NOx waivers for 10 counties. For the seven counties in Southeast Michigan that were formerly moderate nonattainment under the 1-hour standard, the EPA withdrew the NOx waiver when the area was redesignated to attainment. Therefore, the Rule 220 waiver will not apply in these counties. The waivers have not been revoked for Kent, Ottawa, and Muskegon counties. However, the EPA's 2003 draft 8-hour ozone implementation Rule states that areas previously granted a NOx waiver under the 1-hour standard would have to seek re-approval for the 8-hour standard.

Phase II of the EPA's 8-hour ozone implementation rule will address the waiver issue and may contain different requirements than described above. This rule is expected to be finalized later in 2004.

8. What will be the baseline date for offsets for NSR permitting in new nonattainment areas?

Rule 220(2)(b) states, "[o]nly those offsets occurring after the year used as the baseline for the SIP, or the date on which an area is classified nonattainment for an air contaminant, whichever is later, may be used." Michigan's baseline emission inventory year for the 8-hour ozone SIP is 2002 and will be used as the baseline date for offsets. Any reductions occurring prior to January 1, 2003, will not be eligible to be used as an offset.

The baseline represents the emissions inventory used by the state to begin the control program analysis for bringing the nonattainment area into attainment. Offsets must

therefore originate after the baseline year. The 2002 baseline date under Rule 220 is consistent with the baseline date that the EPA established for other states.

9. With the baseline date for offsets being January 1, 2003, there may be few offsets available for use when the offset requirement began in June 2004. How will an applicant be able to meet the Rule 220 requirement for offsets?

The DEQ recognizes that there may be limited amounts of offsets available but commits to assisting applicants with identifying potential offsets. The DEQ held meetings with other interested parties to determine the best process to help applicants identify and use offsets.

10. Can the offsets be obtained from counties designated as attainment?

No. Section 173(c)(1) of the CAA as well as Rule 220 specify that the offsets (emission reductions) must be obtained from either (a) the same nonattainment area or (b) another nonattainment area. If offsets are obtained from another nonattainment area, that area must have an equal or higher nonattainment classification and the emissions from that area must contribute to the standard being violated in the area where the source is being located.

11. Which regulation will govern permits for nonattainment NSR permitting: Rule 220 or 40 CFR Part 51, Appendix S?

40 CFR 52.24(k) states that Appendix S applies during the interim period between nonattainment designation and the EPA approval of a SIP that satisfies nonattainment requirements specified in Part D of the CAA. Rule 220 is included in Michigan's SIP and has been used as part of the attainment plan for the 1-hour ozone standard. Appendix S would apply in all new 8-hour nonattainment areas where either no nonattainment permit rules apply or where the existing state rules are less stringent than Appendix S.

Since Rule 220 is in Michigan's approved SIP and has fulfilled all of the requirements for NSR permitting for ozone nonattainment, it is expected to be considered as stringent as Appendix S. It will be clear whether the EPA will take this same view when the new requirements in the final Phase II implementation rule for 8-hour ozone are published late this summer. The EPA is expected to establish NO_x as a precursor to ozone in Subpart 1 nonattainment areas in Phase II or in the Appendix S revisions. Therefore, offsets would be required for major sources of NO_x, as well as VOCs, in unclassified areas. Rule 220 does not require NO_x offsets in unclassified nonattainment areas. The EPA has indicated that revisions to Appendix S are underway and will be available by September 2004. These changes will need to be included in the SIP by 2007.

It is important to note that even if Rule 220 is considered less stringent than Appendix S, as a state rule it became effective immediately upon the effective date of the nonattainment designations. A comparison chart outlining the requirements of Rule 220 for Michigan, Appendix S, and the federal CAA can be found on page 6.

12. What version of Rule 220 is in the SIP?

The current version of Rule 220 as found in Michigan's Administrative Rules differs from the Rule 220 version in the SIP. The version approved into the SIP is from the early 1980s. The DEQ has made a number of revisions to Rule 220 since the 1980s version, but because of the EPA concerns with various parts of Michigan's NSR rules, the EPA never adopted the more recent versions into the SIP. The DEQ has completed a set of rule revisions, including the current Michigan Rule 220, to address the EPA concerns with Michigan's NSR program, and these revisions are awaiting the EPA SIP approval at this time.

13. What are the requirements of Rule 220?

Rule 220 requires that all major offset sources or major offset modifications:

- *Meet the Lowest Achievable Emission Rate (LAER). The LAER is the most stringent emission limitation contained in any SIP, unless it is demonstrated that the limitation is not achievable, or the most stringent emission limitation achieved in practice. In addition, Best Available Control Technology (BACT) is required for any nonattainment air contaminant for which the potential to emit is significant but less than 100 tons per year.*
- *Analyze alternate sites, sizes, production processes, and control techniques. The applicant must demonstrate that the benefits of the proposal significantly outweigh its environmental and social costs.*
- *Demonstrate that all of its major sources are in compliance with all air quality regulations. The applicant must demonstrate that all of its major sources in Michigan are in compliance or are complying with a legally enforceable order.*
- *Provide offsets (emission reductions). The amount of offsets depends upon the designation of the nonattainment area. For unclassified areas, the amount of VOC offsets required is 110 percent. In moderate areas the amount for VOC and NO_x is 115 percent of the allowable emissions. Offsets must be provided for each applicable nonattainment air contaminant prior to start-up of the proposed new source, but must be verifiable before the issuance of the permit.*

These requirements are consistent with the federal requirements in the CAA. A comparison of Rule 220 with the CAA and with the EPA's general offset provisions (Appendix S of 40 CFR 51) can be found on page 6.

14. Rule 220(1)(a) requires the LAER for major offset modifications for each significant net emissions increase of a nonattainment air contaminant. Does this mean that every modification must be evaluated for LAER applicability based on the net emissions increase at the facility?

Emissions netting is required only when a modification results in both a significant emissions increase and a significant net emissions increase. Therefore, emissions netting will remain an option only for modifications that, by themselves, result in a significant emissions increase.

Examples:

- *A company proposes a 30-ton-per-year increase of VOCs in the ozone nonattainment area. Because the proposed increase is less than the VOC significance level of 40 tons per year, LAER would not apply.*
- *A company proposes a 50-ton-per-year increase of VOCs in the ozone nonattainment area. Since the proposed increase is greater than the VOC significance level of 40 tons per year, the net emissions increase may be determined. The net emissions increase determination takes into account all contemporaneous emissions increases and decreases at the facility. In this case, equipment has been shut down at the facility and the net emissions increase is determined to be 25 tons per year. Since net emissions increase of 25 tons per year is less than the significance level for ozone of 40 tons per year, LAER would not apply to the proposed installation.*

Ozone Nonattainment Implementation
and New Source Review
Question and Answer Document
July 28, 2004

- *A company proposes a 50-ton-per-year increase in VOCs in the ozone nonattainment area. Over the years, other equipment has been added to the facility, and as a result, the net emissions increase is determined to be 60 tons per year. Because both the proposed increase and the proposed net emissions increase are greater than the 40 tons per year significance level for VOCs, LAER would be required for the proposed installation.*

15. If a source obtains a permit under the Prevention of Significant Deterioration program and does not construct within 18-months, what permitting rules will apply if the county has now been designated nonattainment?

40 CFR 52.21(r)(2) allows an extension to the permit if a source has not commenced construction within 18 months of approval to construct. If an extension is not issued prior to nonattainment designation and the county is redesignated as nonattainment, the source is subject to the nonattainment NSR permit process and requirements.

16. Does Michigan's trading program have any impacts on offsets?

Michigan's trading program is available as a source of offsets but it is not required to be used in acquiring or generating offsets. If it is used, the 10 percent set-aside is required, and a provision of Rule 211 requires that 2 ½ years of emission reduction credits be retained for new sources. The original emission reduction must occur on or after January 1, 2003. Emission reduction credits used for offsets will be only a one-time use, as with nontrading program offsets.

Nonattainment Regulations Comparison Chart

Rule 220 of the Michigan Air Pollution Control Rules	40 CFR 51, Appendix S, Emission Offset Interpretive Ruling	Clean Air Act of 1990
Major offset source means a source with a potential to emit of 100 tons per year (tpy) or greater.	Same as Rule 220 requirements.	Same as Rule 220 requirements. Section 302
Requirements apply in ozone, particulate matter, particulate matter less than 10 microns, carbon monoxide, NO _x , sulfur dioxide, or lead nonattainment areas.	Requirements apply in any nonattainment area.	Requirements apply in any nonattainment area.
Must apply LAER for major offset source with potential 100 tpy or greater. R220(1)(a)(i)(A)	Apply LAER for pollutants which the increased allowable emissions exceed 50 tpy, 1000 pounds/day, or 100 pounds/hour (use short-term limits if the National Ambient Air Quality Standard (NAAQS) is 24-hour or less).	Same as Rule 220 requirements. Section 173(a)(2)
Must apply LAER for major offset modification with potential significant net emissions increase. Significant net emissions increase is defined. R220(1)(a)(i)(B)	Apply LAER for pollutants which the increased allowable emissions exceed 50 tpy, 1000 lb/day, or 100 lb/hr (use short-term limits if the NAAQS is 24-hour or less).	Same as Rule 220 requirements. Section 173(a)(2)
At a new major nonattainment source, must apply LAER for significant net emissions increases and BACT for other nonattainment pollutants with potential emission greater than the significant trigger level, but less than 100 tpy ¹ . R220(1)(a)(ii)	Appendix S requires LAER for significant net emissions increases at a new major nonattainment source but does not address BACT for other nonattainment pollutants.	The CAA requires LAER for significant net emissions increases at a new major nonattainment source but does not address BACT for other nonattainment pollutants.
For NO _x , LAER and BACT described above, do not apply if NO _x reductions from using LAER or BACT would not decrease ozone and for certain source categories, the net air quality benefits are greater without NO _x reductions. R220(1)(a)(iii)	Appendix S does not address this.	Same as Rule 220 requirements. Section 182(f)

¹ This BACT requirement was included in Rule 220 in earlier rulemaking and was intended to insure that control requirements in nonattainment areas are at least as stringent as in attainment areas.

Nonattainment Regulations Comparison Chart

Rule 220 of the Michigan Air Pollution Control Rules	40 CFR 51, Appendix S, Emission Offset Interpretive Ruling	Clean Air Act of 1990
The owner or operator of a major offset source or major offset modification that has other facilities in the state which have the potential to emit 100 tpy or more any criteria pollutant must be in compliance with all air rules or air permits at these other facilities. R220(1)(b)	Same as Rule 220 requirements.	Same as Rule 220 requirements. Section 173(a)(3)
In a nonclassified or marginal ozone nonattainment area, VOC offsets must be equal or greater than 110% of the allowable emissions from the proposed offset source/modification. R220(1)(c)(i)(A)	Offsets must demonstrate reasonable progress towards attainment. (Ratio greater than 1:1)	Same as Rule 220 requirements. Section 182(a)(4)
In a moderate ozone nonattainment area, VOC offsets must be equal or greater than 115% of the allowable emissions from the proposed offset source/modification. R220(1)(c)(i)(B)	Offsets must demonstrate reasonable progress towards attainment. (Ratio greater than 1:1)	Same as Rule 220 requirements. Section 182(b)(5)
In a moderate ozone nonattainment area, NO _x offsets must be equal or greater than 115% of the allowable emissions from the proposed offset source/modification. R220(1)(c)(ii)	Offsets must demonstrate reasonable progress towards attainment. (Ratio greater than 1:1)	Same as Rule 220 requirements. Section 182(f)
NO _x offsets do not apply if it has been shown that the NO _x reductions would not decrease ozone and the EPA determined that for certain sources, the net air quality benefits are greater without NO _x reductions from the source of concern. R220(1)(c)(ii)(A) and (B)	Appendix S does not address this.	Same as Rule 220 requirements. Section 182(f)
Offsets for particulate matter, particulate matter less than 10 microns, carbon monoxide, sulfur dioxide or lead are as follows: <ul style="list-style-type: none"> • 120% if area does not meet the primary standard; • 110% if secondary standard is not met; • 150% if offset is from control of fugitives. R220(1)(c)(iii)(A), (B) and (C)	Offsets must demonstrate reasonable progress towards attainment. (Ratio greater than 1:1)	Section 173(c)(1) requires offsets in nonattainment areas. Offset ratios are not specified.

Nonattainment Regulations Comparison Chart

Rule 220 of the Michigan Air Pollution Control Rules	40 CFR 51, Appendix S, Emission Offset Interpretive Ruling	Clean Air Act of 1990
The applicant must analyze alternative sites, sizes, production processes, and control techniques for the proposed offset source/modification and show that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location and construction/modification. R220(1)(d)	Appendix S does not address this.	Same as Rule 220 requirements. Section 173(a)(5)
Offsets must be for the same air contaminant and in a time frame compatible with the applicable air quality standard. R220(2)(a)	Same as Rule 220 requirements.	Same as Rule 220 requirements. Section 173(c)
Offsets must occur after the baseline year for the SIP or the date that an area is classified, whichever is later. R220(2)(b)	Appendix S does not provide a specific baseline date; however, the baseline year is provided in the Implementation Rule published by EPA. The date for the 8-hour Implementation Plan has not been specified, but is expected within the next several months.	The baseline year is determined by EPA regulations. Section 173(a)(1)
Offsets must be permanent, quantifiable, and federally enforceable. Offsets must be actual emissions or allowable emissions, whichever is lower, and must be accomplished by the start-up date of the proposed source. R220(2)(c)	Similar - offsets must be enforceable and accomplished by the start-up date of the proposed source. Offsets must be calculated based on actual hours of operation for the previous one- or two-year period.	Similar - offsets must be enforceable, accomplished by the start-up date of the proposed source, and must be of equal or greater reduction in actual emissions. Section 173(c)
Obtain offsets from the same nonattainment area as the proposed source/modification unless another area has an equal or higher classification and the nonattainment emissions from the other area contribute to the nonattainment status in the area of the proposed source. R220(2)(d)(i) and (ii)	Similar - obtain offsets from existing sources in the broad vicinity (not necessary from a nonattainment area) for VOC and NOx (closer for other pollutants); offset ratio should increase with distance from the proposed source.	Same as Rule 220 requirements. Section 173(c)(1)
Reductions required as a result of an air quality rule, an air permit or order cannot be used as offsets. In this situation, incidental emission reductions can be used as offsets as long as they meet the requirements of Rule 220(2). R220(2)(e)	Appendix S does not address this.	Same as Rule 220 requirements. Section 173(c)(2)

Nonattainment Regulations Comparison Chart

Rule 220 of the Michigan Air Pollution Control Rules	40 CFR 51, Appendix S, Emission Offset Interpretive Ruling	Clean Air Act of 1990
The LAER and offset requirements in R220(1) do not apply to routine maintenance, repair and replacement (this does not refer to the new federal Routine Maintenance, Repair, and Replacement equipment replacement provision currently in litigation), the use of an alternate fuel required by an order or if the fuel is used at a steam generating unit and generated from municipal waste, or the use of an alternate fuel that would be allowed under a permit [see R220(3)(a) through (f)]. R220(3)	LAER and offsets do not apply to resource recovery facilities burning municipal solid waste or fuel switches that are a result of lack of adequate fuel supplies or result from EPA requirements.	The CAA does not list specific exemptions from LAER and offsets.
The offset ratios in R220(1)(c) do not apply to any temporary emissions (pilot plants, portable facilities, or the construction phase of a major source or modification). R220(4)	Same as Rule 220 requirements.	The CAA does not exempt temporary emissions from offset requirements.
Rule 220 does not apply to organic compounds that have very little effect on ozone formation. These chemicals are listed in 40 CFR 51.100(s)(1). R220(5)	Same as Rule 220 requirements.	The CAA does not address this.
Rule 220 does not address banking of emissions, but does not prohibit it as long as offsets meet the rule's other criteria for legitimate offsets.	Banking is allowed (offsets can be saved for future use).	The CAA does not address this but does not prohibit saving reductions for future use.
Rule 220 does not address offsets from neighboring states, but does not prohibit it. Offsets must be enforceable.	Offsets obtained from a neighboring state must be enforceable by that state.	The CAA recognizes interstate ozone transport but does not specifically address offsets from neighboring states.