

## **CHAPTER 9: PREVENTION OF SIGNIFICANT DETERIORATION**

### **Rule 19.901 Title**

The following rules of the Arkansas Pollution Control and Ecology Commission, adopted in accordance with the provisions of Part II of the Arkansas Water and Air Pollution Control Act at Ark. Code Ann. § 8-4-101 *et seq.*, shall be known as Prevention of Significant Deterioration Rules of the Arkansas Plan of Implementation for Air Pollution Control, hereinafter referred to, respectively, as the “Prevention of Significant Deterioration Rules.”

### **Rule 19.902 Purposes**

Promulgation and enforcement of these Prevention of Significant Deterioration Rules is intended to further the purposes of the state implementation plan and Rule 19, including, but not limited to, acceptance of delegation by the EPA of authority for enforcement of rules governing the prevention of significant deterioration of air quality and rules governing the protection of visibility in mandatory Class I federal areas.

### **Rule 19.903 Definitions**

- (A) “Advance notification” (of a permit application) means any written communication that establishes the applicant's intention to construct, and that provides the Division with sufficient information to determine that the proposed source may constitute a major new source or major modification, and that such source may affect any mandatory Class I federal area, including, but not limited to, submittal of a draft or partial permit application, a prevention of significant deterioration monitoring plan, or a sufficiently detailed letter. “Advance notification” does not include general inquiries about Commission Rules.
- (B) “Regulated new source review pollutant,” for purposes of this chapter, means the following:
- (1) Any pollutant for which a national ambient air quality standard has been adopted under Chapter 2 of this Rule and any pollutant identified under this paragraph (B)(1) as a constituent or precursor for such pollutant. Precursors identified by the Division for purposes of new source review are the following:
    - (a) Volatile organic compounds and nitrogen oxides are precursors to ozone in all attainment and unclassifiable areas.

- (b) Sulfur dioxide is a precursor to PM<sub>2.5</sub> in all attainment and unclassifiable areas.
  - (c) Nitrogen oxides are presumed to be precursors to PM<sub>2.5</sub> in all attainment and unclassifiable areas, unless Arkansas demonstrates to the Administrator's satisfaction or EPA demonstrates that emissions of nitrogen oxides from sources in a specific area are not a significant contributor to that area's ambient PM<sub>2.5</sub> concentrations.
  - (d) Volatile organic compounds are presumed not to be precursors to PM<sub>2.5</sub> in any attainment or unclassifiable area, unless Arkansas demonstrates to the Administrator's satisfaction or EPA demonstrates that emissions of volatile organic compounds from sources in a specific area are a significant contributor to that area's ambient PM<sub>2.5</sub> concentrations.
- (2) Any pollutant that is subject to any standard promulgated under Section 111 of the Clean Air Act;
  - (3) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Clean Air Act;
  - (4) Any pollutant that otherwise is subject to regulation under the Clean Air Act;
  - (5) Notwithstanding paragraphs (B)(1) through (4) of this section, the term *regulated new source review pollutant* shall not include any or all hazardous air pollutants either listed in Section 112 of the Clean Air Act, or added to the list pursuant to Section 112(b)(2) of the Clean Air Act, and that have not been delisted pursuant to Section 112(b)(3) of the Clean Air Act, unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under Section 108 of the Clean Air Act; and
  - (6) PM<sub>2.5</sub> emissions and PM<sub>10</sub> emissions shall include gaseous emissions from a source or activity that condense to form particulate matter at ambient temperatures. As of the effective date of the federal final rule published by EPA in the Federal Register on Thursday, October 25, 2012 (77 FR 65107), such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for PM<sub>2.5</sub>, and PM<sub>10</sub> in prevention of significant deterioration permits. Compliance with emissions limitations for PM<sub>2.5</sub>, and PM<sub>10</sub> issued prior to this date shall not be based on

condensable particulate matter unless required by the terms and conditions of the permit or the applicable implementation plan. Applicability determinations made prior to this date without accounting for condensable particulate matter shall not be considered in violation of this chapter.

- (C) For the purpose of this chapter, “subject to regulation” means, for any air pollutant, that the pollutant is subject to either a provision of the federal Clean Air Act, or a nationally-applicable regulation codified by the Administrator pursuant to 40 C.F.R., Chapter 1, Subchapter C and adopted herein, that requires actual control of the quantity of emissions of that pollutant and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity.
- (D) All other terms used herein shall have the same meaning as set forth in Chapter 2 of Rule 19 or in 40 C.F.R. § 52.21(b) [prevention of significant deterioration] and 40 C.F.R. § 51.301 [Protection of Visibility] as of October 20, 2010, and adopted in Rule 19.904, unless manifestly inconsistent with the context in which they are used. Wherever there is a difference between the definitions in Chapter 2 of Rule 19 and those listed in 40 C.F.R. § 52.21(b) and C.F.R. § 51.301, the federal definitions as listed in 40 C.F.R. § 52.21(b), as adopted in Rule 19.904 and Rule 19.903(A), (B) and (C), and 40 C.F.R. § 51.301 as of October 20, 2010, shall apply.
- (E) The definition for “routine maintenance, repair and replacement” in 40 C.F.R. § 52.21(b)(2)(iii)(a) is not incorporated.

#### **Rule 19.904 Adoption of Rules**

- (A) Except where manifestly inconsistent with the provisions of the Clean Air Act, as amended, or with federal regulations adopted pursuant thereto, and as amended specifically herein by paragraphs (B), (C), (D), (E), (F), and (G) of Rule 19.904, the Division of Environmental Quality shall have those responsibilities and that authority, with reference to the State of Arkansas, granted to the Administrator of the EPA under 40 C.F.R. § 52.21 (a)(2) through (bb), as in effect on November 29, 2005, which are hereby incorporated herein by reference with the exception of:
  - (1) 40 C.F.R. § 52.21(aa), which is incorporated by reference as in effect on August 13, 2012, except for instances in the sections of 40 C.F.R. § 52.21(aa) where 40 C.F.R. § 52.21(b)(49) is referenced. In those instances, paragraph (G) of Rule 19.904 shall apply;

- (2) 40 C.F.R. § 52.21(r)(6), which is incorporated by reference as of the effective date of the federal final rule published by EPA in the Federal Register on December 21, 2007 (72 FR 72607);
- (3) 40 C.F.R. §§ 52.21(b)(23), 52.21(i)(5)(ii), and 52.21(i)(5)(iii), which are incorporated by reference as of May 16, 2008;
- (4) 40 C.F.R. §§ 52.21(b)(14)(i) [Major Source Baseline Date], 52.21(b)(14)(ii) [Minor Source Baseline Date], 52.21(b)(14)(iii), 52.21(b)(15) [Baseline Area], 52.21(c) [Ambient Air Increments], 52.21(k)(1) [Source Impact Analysis Requirements], and 52.21(p) [Requirements for Sources Impacting Federal Class I areas], which are incorporated herein by reference as of October 20, 2010;
- (5) 40 C.F.R. §§ 52.21(b)(49), 52.21(b)(50), 52.21(b)(55-58), 52.21(i)(9), and 52.21(cc), which are not incorporated herein.

In the absence of a specific imposition of responsibility or grant of authority, the Division shall be deemed to have that responsibility and authority necessary to attain the purposes of the state implementation plan, these Prevention of Significant Deterioration Rules, and the applicable federal regulations, as incorporated herein by reference.

- (B) Exclusions from the consumption of increments, as provided in 40 C.F.R. § 51.166(f)(1)(iii) as of November 29, 2005, shall be effective immediately. Submission of the state implementation plan under the Governor's signature constitutes a request by the Governor for this exclusion.
- (C) In addition to the requirements of 40 C.F.R. § 52.21(o) as of November 29, 2005, the following requirements [designated as Rule 19.904(C)(1),(2),(3) and (4)] shall also apply:
  - (1) Where air quality impact analyses required under this Chapter indicate that the issuance of a permit for any major stationary source or for any major modification would result in the consumption of more than fifty percent (50%) of any available annual increment or eighty percent (80%) of any short term increment, the person applying for such a permit shall submit to the Division an assessment of the following factors:
    - (a) Effects that the proposed consumption would have upon the industrial and economic development within the area of the proposed source; and
    - (b) Alternatives to such consumption, including alternative siting of the proposed source or portions thereof.

- (2) The assessment required under Rule 19.904(C)(1) shall be made part of the application for permit and shall be made available for public inspection as provided in 40 C.F.R. § 52.21(q) as of November 29, 2005.
  - (3) The assessment required under Rule 19.904(C)(1) shall be in detail commensurate with the degree of proposed increment consumption, both in terms of the percentage of increment consumed and the area affected.
  - (4) The assessment required under Rule 19.904(C)(1) may be made effective where a proposed source would cause an increment consumption less than that specified in said subparagraph if the Director finds that unusual circumstances exist in the area of the proposed source that warrant such an assessment. The Director shall notify the applicant in writing of those circumstances that warrant said assessment. The Commission may rescind or modify the Director's action, upon a showing by the applicant that the circumstances alleged by the Director either do not exist or do not warrant the aforesaid assessment.
- (D) In addition to the requirements of 40 C.F.R. § 52.21(p)(1) as of October 20, 2010, the following requirements shall also apply:
- Impacts on mandatory Class I federal areas include impacts on visibility. The preliminary determination that a source may affect air quality or visibility in a mandatory Class I federal area shall be made by the Division, based on screening criteria agreed upon by the Division and the Federal Land Manager.
- (E) In all instances wherein the aforesaid 40 C.F.R. § 51.301 and 40 C.F.R. § 52.21 refer to the Administrator or the EPA, the reference, for the purposes of paragraph (A) of Rule 19.904, shall be deemed to mean the Division, unless the context plainly dictates otherwise, except in the following sections:
- (1) Exclusion from increment consumption: 40 C.F.R. §§ 52.21(f)(1)(v), (f)(3), and (f)(4)(I);
  - (2) Redesignation: 40 C.F.R. §§ 52.21(g)(1), (g)(2), (g)(4), (g)(5), and (g)(6);
  - (3) Air quality models: 40 C.F.R. § 52.21(l)(2).
- (F) Redesignation of air quality areas in Arkansas shall comply with Ark. Code Ann. § 8-3-101 *et seq.*

(G) For the purpose of the regulation of greenhouse gases, only the standards and requirements promulgated by EPA as of June 3, 2010, related to the permitting of greenhouse gas emissions shall apply to the requirements of 40 C.F.R. § 52.21, as of November 29, 2005, incorporated by reference at Rule 19.904(A). The following definitions and requirements shall also apply:

(1) “Greenhouse gases” means the air pollutant defined as the aggregate group of six (6) greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation except as provided in Rule 19.904(G)(4) through Rule 19.904(G)(5), and shall not be subject to regulation if the stationary source:

- (a) Maintains its total plant-wide emissions below the greenhouse gas plant-wide applicability limitations level;
- (b) Meets the requirements in 40 § C.F.R 52.21(aa)(1) through 40 C.F.R. § 52.21(aa)(15) as outlined in Rule 19.904(A)(1); and
- (c) Complies with the greenhouse gases plant-wide applicability limitations contained in the permit.

(2) For purposes of Rule 19.904(G)(3) through Rule 19.904(G)(5):

- (a) The term tons per year of CO<sub>2</sub> equivalent emissions shall represent an amount of greenhouse gases emitted, and shall be computed as follows:
  - (i) Multiplying the mass amount of emissions in tons per year, for each of the six (6) greenhouse gases in the pollutant greenhouse gases, by each gas’s associated global warming potential published at Table A-1 to Subpart A of 40 C.F.R. Part 98—Global Warming Potentials; and
  - (ii) Sum the resultant values from Rule 19.904(G)(2)(a) for each gas to compute tons per year of CO<sub>2</sub> equivalent emissions.

(3) The term “emissions increase” as used in Rule 19.904(G)(4) through Rule 19.904(G)(5) shall mean that both a significant emissions increase (as calculated using the procedures in 40 C.F.R. § 52.21(a)(2)(iv), as of November 29, 2005), and a significant net emissions increase (as defined in 40 C.F.R. § 52.21(b)(3), as of November 29, 2005, and 40 C.F.R. § 52.21(b)(23), as of November 29, 2005), occur. For the pollutant greenhouse gases, an emissions increase shall be based on

tons per year of CO<sub>2</sub> equivalent emissions, and shall be calculated assuming the pollutant greenhouse gases is a regulated new source review pollutant, and “significant” is defined as seventy-five thousand (75,000) tons per year of CO<sub>2</sub> equivalent emissions instead of applying the value in 40 C.F.R. § 52.21(b)(23)(ii), as of November 29, 2005.

(4) Beginning January 2, 2011, the pollutant greenhouse gases is subject to regulation if:

(a) The stationary source is a new major stationary source for a regulated new source review pollutant that is not greenhouse gases, and also will emit or will have the potential to emit greenhouse gases at seventy-five thousand (75,000) tons per year of CO<sub>2</sub> equivalent emissions or more; or

(b) The stationary source is an existing major stationary source for a regulated new source review pollutant that is not greenhouse gases, and also will have an emissions increase of a regulated new source review pollutant, and an emissions increase of greenhouse gases of seventy-five thousand (75,000) tons per year of CO<sub>2</sub> equivalent emissions or more.

(5) [RESERVED]

(H) The following shall apply when dispersion or other air quality modeling is used to meet the requirements of this chapter.

(1) General

All applications of air quality modeling involved in this chapter shall be based on the applicable models, data bases, and other requirements specified in Appendix W of 40 C.F.R. Part 51 (Guideline on Air Quality Models).

(2) Substitution

Where an air quality model specified in the Guideline on Air Quality Models is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific pollutant or type of stationary source. Written approval of the Administrator of the EPA must be obtained for any modification or substitution.