

Eastern Kern Air Pollution Control District

Rule 210.4 PREVENTION OF SIGNIFICANT DETERIORATION

FINAL STAFF REPORT

January 19, 2012

Prepared by

Jeremiah Cravens
Air Quality Specialist II

Reviewed by

David L. Jones **Glen Stephens**
Air Pollution Control Officer **Senior Air Quality Engineer III**

Eastern Kern Air Pollution Control District
2700 "M" Street, Suite 302
Bakersfield, California 93301
(661) 862-5250 • www.kernair.org

Table of Contents

I.	BOARD ADOPTION	1
II.	TAILORING RULE BACKGROUND	1
III.	TAILORING RULE BACKGROUND	2
IV.	PSD PROGRAM.....	2
V.	EQUIVALENCY DETERMINATION.....	3
VI.	SB 288.....	3
VII.	DEFINITIONS	4
VIII.	APPLICABILITY.....	4
IX.	EXEMPTION.....	4
X.	ECONOMIC IMPACTS	4
XI.	SOCIOECONOMIC IMPACTS.....	5
XII.	ENVIRONMENTAL IMPACTS	5
APPENDIX A	AMENDED RULE 210.4, PREVENTION OF SIGNIFICANT DETERIORATION	
APPENDIX B	PREVIOUS VERSION OF RULE 210.4, PREVENTION OF SIGNIFICANT DETERIORATION	
APPENDIX C	RESPONSE TO COMMENTS	
APPENDIX D	PSD EQUIVALENCY DEMONSTRATION	

I. BOARD ADOPTION

Rule 210.4, Prevention of Significant Deterioration (PSD) was amended by the Eastern Kern Air Pollution Control District (District) Governing Board on January 12, 2012 at the January 2012 Board meeting.

II. INTRODUCTION

The District has had Rule 210.4, PSD in its Rule Book since 1984. However, authority to enforce the rule was not delegated by U.S. Environmental Protection Agency Region IX (EPA). EPA recently encouraged the District to revise its PSD rule and request authority to operate/enforce the PSD program. The District while interested in pursuing delegation of Federal PSD regulations recognized significant changes to its PSD rule were necessary in order to achieve delegation of the program.

Last year's federal decision to include greenhouse gas (GHG) emissions in PSD and Title V actions and the ability to offer sources subject to PSD a more streamlined permitting process were the primary reason the District amended Rule 210.4.

The District also amended Rules 201.1, Permits to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990, 201.2, Synthetic Minor Source, and 201.3, Federally Enforceable Limits on Potential to Emit to align them with federal GHG reporting requirements of the Tailoring Rule while concurrently amending Rule 210.4, PSD to allow a request for delegation.

This staff report presents significant amendments made to Rule 210.4, PSD following the February 10, 2011 workshop held at the Mojave Veterans Building 15580 "O" Street, Mojave, CA and the November 9, 2011 workshop held at the Rosamond CSD 3179 35th Street - West, Rosamond, CA 93560.

Appendix A is the 1/12/12 amended version of Rule 210.4, PSD reflecting changes made after receiving comments from the EPA and the California Air Resources Board (ARB) of drafts submitted 1/6/2011, 2/8/2011, and 10/13/2011.

Appendix B is the previously adopted version of Rule 210.4, PSD.

Appendix C is the response to comments from the EPA, ARB, and industry/public regarding their review of the 1/6/2011, 2/8/2011, and 10/13/2011 drafts of the proposed amendments to Rule 210.4, PSD.

Appendix D is a copy of District's PSD Equivalency Demonstration.

III. TAILORING RULE BACKGROUND

Following a decision of the U.S. Supreme Court early 2009, EPA issued an “Endangerment Finding” for GHGs under the Federal Clean Air Act (CAA). This was the first step towards regulating GHGs under the CAA.

In October 2009, EPA approved 40 CFR Parts 86, 87, 89 et al. Mandatory Reporting of Greenhouse Gases; Final Rule. The rule does not require control of greenhouse gases, rather it requires only that sources above certain threshold levels monitor and report emissions.

In April 2010, EPA approved a GHG motor vehicle emission standard under the CAA. EPA also issued an Interpretive Ruling to clarify that GHGs would not become “regulated pollutants” under the CAA until the first compliance date of the effective emission standard.

In May 2010, EPA approved another GHG rule commonly referred to as the “Tailoring Rule” which adjusted or tailored the applicability thresholds for federal permitting requirements for GHGs and provided an implementation schedule. The Tailoring Rule was adopted because the primary GHG carbon dioxide (CO₂) is emitted at higher rates from most operations and processes than the pollutants historically regulated under the CAA. For example, the emission threshold for many “other regulated pollutants” under Title V is 100 tons per year and any emission rate increase whatsoever for other sources under the PSD program. A household water heater, which is clearly not a large industrial source, will emit CO₂ at these levels.

IV. PSD PROGRAM

The PSD program requires new sources with air pollution emissions above a specified level, or modifications to an existing source that results in air pollution emissions above a specified level, undergo analysis to determine impacts on air quality and on any Class I, Class II, or Class III designated area.

Analysis can include computer dispersion modeling, air quality monitoring, and assessment of the use of pollution growth increments. The project must also use Best Available Control Technology (BACT) to minimize emissions.

The level at which PSD applies and the type of analysis required will depend on the pollutants emitted by the project. Emission thresholds are provided for criteria air pollutants, which are the pollutants EPA established individual regulation criteria. These include volatile organic compounds, nitrogen oxides, sulfur oxides, Particles with aerodynamic diameter of 10 micrometers or less (PM₁₀), carbon monoxide, ethylene, lead, asbestos, beryllium, mercury, vinyl chloride, fluorides, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, and reduced sulfur compounds, and those pollutants which EPA, ARB, or EKAPCD,

after due process, has determined to have a significant adverse effect on the environment, public health, or public welfare.

V. EQUIVALENCY DEMONSTRATION

In 2002, the EPA approved modifications to the federal PSD regulations, Title 40 Code of the Code of Federal Regulations (CFR) Part 52.21 (PSD Reform). Under PSD Reform each state is required to amend its regulations to conform to the new federal program. If the state's program deviates from the federal provisions, it must perform an equivalency analysis demonstrating its PSD program is at least as stringent as the federal program.

After review of the most recent revision of 40 CFR 52.21, the District believed that some of the new provisions would weaken the District's PSD program if adopted in its entirety. In an effort to comply with the requirements of SB288 as discussed in Section V below, amended Rule 210.4 excludes or replaces those PSD Reform provisions that could be considered a relaxation of the Rule. To verify to EPA that amended Rule 210.4 is at least as stringent as the PSD Reform rules, the District prepared a PSD Equivalency Demonstration.

The District's PSD Equivalency Demonstration analysis has resulted in the findings that; because of the particular sources subject to the PSD rule (in Eastern Kern), and because of the very stringent rules and regulations already in place, Amended Rule 210.4 is at least as stringent as the federal PSD Reform rules. In fact, when the EPA's analysis of the Reform provisions is applied to the District as opposed to the national review undertaken by EPA Amended Rule 210.4 is more stringent than the PSD Reform provisions

A copy of the PSD Equivalency Demonstration is attached to this staff report as Appendix D.

VI. SB 288

In 2003, California Legislature passed Senate Bill 288, Protect California Air Act of 2003 (SB 288). SB 288 is intended to prevent the weakening of local air district programs which may occur from the implementation of certain federal regulatory reforms promulgated by EPA. The bill prohibits a district from adopting changes to its NSR or PSD program that have the effect of making the program less stringent than it was on December 31, 2002.

The current revision of 40 CFR Part 52.21, includes a number of provisions that would be considered a relaxation to any air district's PSD Program if adopted before December 31, 2002. These provisions include: Major Modification definition, Baseline Actual Emissions definition, Actual-to-Projected-Actual applicability, and Plantwide Applicability Limitations (PALs).

The District's PSD rule was last amended and submitted to EPA for inclusion in the State Implementation Plan (SIP) in 1999. Although Rule 210.4 was not included in the SIP, it was adopted into the District's Rule Book. Consequently, 40 CFR 52.21 cannot be adopted by reference because Rule 210.4 was approved by the District prior to 12/31/2002.

Subsections (a)(1), (b)(55-58), (f), (g), (i)(1)((i-v) and (ix-xi)), (i)(6-8), (p)(6-8),(q), (s), (t), (u), (v), (w), (x), (y), (z), (aa), and (cc) of 40 CFR Part 52.21 have been excluded from Amended Rule 210.4 because inclusion of these subsections would be considered backsliding under the provisions of SB 288.

VII. DEFINITIONS

Terms used in Amended Rule 210.4 are defined in 40 CFR Part 52.21(b) (in effect upon date of adoption). However, to aid in clarity and intent, Rule 210.4 includes revised definitions for the following terms: Actual Emissions, Administrator, APCO, Baseline Actual Emissions, Major Modification, Net Emissions Increase, and Paragraph (q). See Section II, Definitions in Appendix A of this Staff Report for complete revised definitions.

VIII. APPLICABILITY

Provisions of amended Rule 210.4 apply to any source and the owner or operator of any source subject to any requirement under CFR Part 52.21 as incorporated into the Rule. If any source is subject to more than one rule, regulation, provision, or requirement relating to the control of any regulated NSR pollutant, in cases of conflict or duplication, the most stringent rule, regulation, provision, or requirement shall apply. Amended Rule 210.4 contains revised language for applicability procedures located in 40 CFR 52.21(a)(2). See Section III, Applicability in Appendix A of this Staff Report.

IX. EXEMPTION

An exemption section was added to amended Rule 210.4 based on a comment received from the EPA. The following language has been moved from Section V.D, Requirements to Section V, Exemption and Section V, Requirements was renumbered to VI, Requirements: *"Greenhouse Gas Air Quality Analysis: Greenhouse gas emissions shall not be subject to the requirements of subsections (k) or (m) of 40 CFR Part 52.21 in effect on (date of adoption)".*

X. ECONOMIC IMPACT

Amended Rule 210.4, Prevention of Significant Deterioration poses no significant increased cost to industry.

XI. SOCIOECONOMIC IMPACTS

California Health and Safety Code Section 40728.5 exempts districts with a population of less than 500,000 persons from the requirement to assess the socioeconomic impacts of proposed rules. Eastern Kern County population is below 500,000 persons.

XII. ENVIRONMENTAL IMPACTS

No significant environmental impacts are expected as a result of this amended Rule. Pursuant to the Section 15061, Subsections (2) & (3) of the California Environmental Quality Act (CEQA) Guidelines, staff has prepared and filed a Notice of Exemption for this project.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

APPENDIX A

AMENDED RULE 210.4

PREVENTION OF SIGNIFICANT DETERIORATION

RULE 210.4 Prevention of Significant Deterioration – Adopted 9/24/84, Amended 11/18/85, 9/2/99, Amended 1/12/12 (Effective Need Date)

I. Purpose

The purpose of this Rule is to include the federal Prevention of Significant Deterioration (PSD) rule requirements into the Eastern Kern Air Pollution Control District's (District) Rules and Regulations by incorporating the federal requirements by reference. The PSD program is a construction permitting program for new major source facilities and major modifications to existing major source facilities located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

II. Definitions

The terms used in this rule are defined in Title 40 of the Code of Federal Regulations (hereinafter, CFR) Part 52.21(b) in effect on (date of adoption) unless a revised definition is provided below:

- A. Actual Emissions: The definition of “Actual Emissions” contained in 40 CFR 52.21(b)(21) is revised to read as set forth below whenever reference is made to that term or 40 CFR 52.21(b)(21):
1. Actual emissions is the actual rate of emissions of a pollutant from an emissions unit, as determined in accordance with Sections II.A.2 through II.A.4 below.
 2. In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The APCO shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
 3. The APCO may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
 4. For any emissions unit which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- B. Administrator: The term “Administrator” means:
1. “Federal Administrator” in 40 CFR 52.21(b)(17), (b)(37)(i), (b)(43), (b)(48)(ii)(c), (b)(50)(i), (b)(51), (l)(2) and (p)(2); and
 2. “APCO” elsewhere.

- C. APCO: Air Pollution Control Officer of the Eastern Kern Air Pollution Control District.
- D. Baseline Actual Emissions: The definition of “Baseline Actual Emissions” contained in 40 CFR 52.21(b)(48) is revised to read as set forth below whenever reference is made to that term or 40 CFR 52.21(b)(48):
1. Baseline Actual Emissions means the actual rate of emissions of a pollutant from an emissions unit, as determined in accordance with Sections II.E.2 and II.E.3 below.
 2. In general, Baseline Actual Emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The Administrator shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Baseline Actual Emissions shall be calculated using the unit’s actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
 3. For any emissions unit which has not begun normal operations on the particular date, Baseline Actual Emissions shall equal the potential to emit of the unit on that date.
- E. Major Modification: The definition of “Major Modification” contained in 40 CFR 52.21(b)(2) is revised to read as set forth below whenever reference is made to that term or 40 CFR 52.21(b)(2):
1. Major Modification means any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.
 2. Any net emissions increase that is significant for VOCs or NO_x shall be considered significant for ozone.
 3. A physical change or change in the method of operation shall not include:
 - a. Routine maintenance, repair and replacement;
 - b. Use of an alternative fuel or raw material by reason of an order under sections 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plant pursuant to the Federal Power Act;
 - c. Use of an alternative fuel by reason of an order or rule under section 125 of the Act;

- 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:
 - i. The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or 40 CFR 51.166; or
 - ii. The source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;
 - f. An increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or 40 CFR 51.166;
 - g. Any change in ownership at a stationary source;
 - h. Fugitive emissions shall not be included in determining for any of the purposes of this Section, whether a physical change in or change in the method of operation of a major stationary source is a major modification, unless the source belongs to one of the source categories listed in paragraph 40 CFR Part 52.21(b)(1)(iii).
- F. Net Emissions Increase: The definition of “Net Emissions Increase” contained in 40 CFR 52.21(b)(3) is revised to read as set forth below whenever reference is made to that term or 40 CFR 52.21(b)(3):
- 1. Net Emissions Increase means the amount by which the sum of the following exceeds zero:
 - a. Any increase in actual emissions from a particular physical change or change in method of operation at a stationary source; and
 - b. Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable.
 - 2. An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:
 - a. The date five years before construction on the particular change commences; and

- b. The date that the increase from the particular change occurs.
 3. An increase or decrease in actual emissions is creditable only if the Administrator has not relied on it in issuing a permit for the source under this section, which permit is in effect when the increase in actual emissions from the particular change occurs.
 4. An increase or decrease in actual emissions of sulfur dioxide, particulate matter, or nitrogen oxide, which occurs before the applicable minor source baseline date is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available. With respect to particulate matter, only PM₁₀ emissions can be used to evaluate the net emissions increase for PM₁₀.
 5. An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
 6. A decrease in actual emissions is creditable only to the extent that:
 - a. The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;
 - b. It is federally enforceable at and after the time that actual construction on the particular change begins; and
 - c. It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.
 7. [Reserved]
 8. An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
- G. Paragraph (q): The phrase “Paragraph (q) of this section” in 40 CFR 52.21(p)(1) shall read as follows: within ten calendar days following a preliminary decision pursuant to Section IV, Requirements of this rule, the APCO shall publish in at least one newspaper of general circulation in the District a notice stating the preliminary decision of the APCO, noting how pertinent information can be obtained, and inviting written public comment for a 30-day period following the date of publication. The notice shall include the time and place of any hearing that may be held, including a statement of procedure to request a hearing (unless a hearing has already been scheduled). The APCO shall give notice of any public hearing at least 30 days in advance of the hearing.

III. Applicability

The provisions of this rule shall apply to any source and the owner or operator of any source subject to any requirement under 40 CFR Part 52.21 as incorporated into this rule. This rule shall become effective upon the effective date of the federal Environmental Protection Agency's (EPA's) final approval of Rule 210.4.

Whenever any source is subject to more than one rule, regulation, provision, or requirement relating to the control of any regulated NSR pollutant, in cases of conflict or duplication, the most stringent rule, regulation, provision, or requirement shall apply. The applicability procedures contained in 40 CFR 52.21(a)(2) are replaced with the following language:

- A. No stationary source or modification to which the requirements of subsections (j) through (r) of 40 CFR Part 52.21 apply shall begin actual construction without a District permit stating that the stationary source or modification would meet those requirements.
- B. The requirements of subsections (j) through (r) of 40 CFR Part 52.21 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Act that it would emit, except as this section otherwise provides.
- C. The requirements of subsections (j) through (r) of 40 CFR Part 52.21 apply only to any major stationary source or major modification that would be constructed in an area designated as attainment or unclassifiable under U.S. Code section 7407(d) or (e).
- D. In determining whether a stationary source or modification is major, fugitive emissions from an emissions unit are included only if the emissions unit is part of one of the source categories listed in 40 CFR 52.21(b)(1)(iii) or if the emission unit is located at a stationary source that belongs to one of the source categories listed in 40 CFR 52.21(b)(1)(iii). Fugitive emissions are not included for those emissions units located at a facility whose primary activity is not represented by one of the source categories listed in 40 CFR 52.21(b)(1)(iii) and that are not, by themselves, part of a listed source category.

IV. Incorporation by Reference

- A. Except as provided in Section V.B, below, the provisions of 40 CFR Part 52.21, in effect on (date of adoption), are incorporated herein by reference and made part of the Rules and Regulations of the District. All references to 40 CFR 52.21 in this Rule refer to the CFR in effect on (date of adoption).
- B. General Exclusion: The following subsections of 40 CFR Part 52.21 , in effect (date of adoption), as well as all references to these subsections or the terms defined in these subsections, are excluded in their entirety: (a)(1), (b)(55-58), (f), (g), (i)(1)((i-v) and (ix-xi)), (i)(6-8), (p)(6-8),(q), (s), (t), (u), (v), (w), (x), (y), (z), (aa), and (cc).

V. Exemption

Greenhouse Gas Air Quality Analysis: Greenhouse gas emissions shall not be subject to the requirements of subsections (k) or (m) of 40 CFR Part 52.21 in effect on (date of adoption).

VI. Requirements

- A. An owner or operator must obtain a PSD permit pursuant to this Rule before beginning actual construction of a new major stationary source or a major modification as defined in 40 CFR 52.21(b).
- B. Notwithstanding the provisions of any other District Rule or Regulation, the APCO shall require compliance with this rule prior to issuing a federal PSD permit as required by Clean Air Act (CAA) Section 165.
- C. The applicant shall pay the applicable fees specified in District Rules 301, Permit Fees and 303, Miscellaneous Fees.

VII. Public Participation

- A. Prior to issuing a federal PSD permit pursuant to this rule and after receipt of a complete application, the APCO shall:
 - 1. Make a preliminary determination whether construction should be approved with conditions or disapproved.
 - 2. Make available in at least one location in each region in which the proposed source would be constructed a copy of all materials the applicant submitted, a copy of the preliminary determination, a copy of the proposed permit and a copy or summary of other materials, if any, considered in making the preliminary determination.
 - 3. Notify the public, by advertisement in a newspaper of general circulation in the District, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and of the opportunity for written public comment.
 - 4. Send a copy of the notice of public comment to the applicant, United States Environmental Protection Agency, Region 9, any persons requesting such notice and any other interested parties such as: Any other State agency or adjacent local air pollution control agencies, the chief executives of the city and county where the source would be located; any comprehensive regional land use planning agency, and any State, Federal Land Manager, or Indian Governing body whose lands may be affected by emissions from the source or modification.

5. Provide opportunity for a public hearing for persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations, if in the APCO's judgment such a hearing is warranted.
6. Consider all written comments that were submitted within 30 days after the notice of public comment is published and all comments received at any public hearing(s) in making a final decision on the approvability of the application and make all comments available for public inspection in the same locations where the District made available preconstruction information relating to the proposed source or modification.
7. Make a final determination whether construction should be approved with conditions or disapproved.
8. Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the District made available preconstruction information and public comments relating to the source.

Remainder of Page Intentionally Left Blank

APPENDIX B

PREVIOUS VERSION OF RULE 210.4

PREVENTION OF SIGNIFICANT DETERIORATION

RULE 210.4 Prevention of Significant Deterioration - Adopted 9/24/84, Amended 11/18/85,
9/2/99

I. Purpose

The purpose of this Rule is to provide for preconstruction review of major sources and major modifications involving attainment (or unclassified) pollutants for the purpose of insuring proposed emissions will not cause an exceedance of National Ambient Air Quality Standards or consume more than a prescribed increment above baseline ambient air quality.

II. Adoption By Reference

Provisions of Part 52.21, Chapter 1, Title 40, of the Code of Federal Regulations (CFR) are hereby adopted by reference.

For purposes of this Rule, the word "Administrator" as used in Part 52.21, Chapter 1, Title 40 of the CFR shall mean the Control Officer, except the Control Officer shall not be empowered to grant a waiver or variance from requirements of this part without written concurrence of U.S. EPA.

APPENDIX C

AMENDED RULE 210.4

PREVENTION OF SIGNIFICANT DETERIORATION

RESPONSE TO COMMENTS

On January 20, 2011 the District submitted a copy of the January 6, 2011 proposed revision of Rule 210.4, Prevention of Significant Deterioration to the Air Resources Board (ARB) and the Region IX office of the U.S. Environmental Protection Agency (EPA) for an initial 30-day review.

ARB and EPA offered comments and suggested changes to District staff regarding the proposed revision of Rule 210.4. The District released an updated version of the proposed amendments to Rule 210.4 on 2/8/2011 that reflected changes based on ARB and EPA comments. A copy of 2/8/2011 revision was submitted to the ARB and EPA for review.

The District held a workshop on 2/10/2011 at the Mojave Veteran's Center in Mojave, CA to present the proposed revision of Rule 210.4. ARB and EPA offered comments and suggested changes to District staff regarding the 2/8/2011 proposed revision of Rule 210.4.

EPA instructed the District to conduct an Equivalency Demonstration to demonstrate that the District's proposed PSD program would be at least as stringent as the federal program. The District prepared an Equivalency Demonstration and submitted it to EPA for review. The District also made additional changes to Rule 210.4. A copy of the 10/13/2011 proposed revision was sent to ARB and EPA for review and a workshop was held at the Rosamond CSD in Rosamond, CA on 11/9/11 to present that revision.

Appendix C is separated into three sections based on the comments and suggested changes made regarding proposed revisions 1/6/2011, 2/8/2011, and 10/13/2011.

I. 1/6/2011 DRAFT

ARB/EPA COMMENTS

The following changes were made to the 1/6/2011 proposed revision of Rule 210.4 in response to ARB and EPA comments.

Revised Purpose

EPA asked that Section I, Purpose be revised to resemble the language used in the PSD Model Rule. In response to the suggestion, the District deleted the sentence "for the purpose of insuring proposed emissions will not cause an exceedance of National Ambient Air Quality Standards (NAAQS) or consume more than a prescribed increment above baseline ambient air quality" and added the sentence "by incorporating the federal PSD rule requirements by reference into the District's Rules and Regulations."

Section I, Purpose of Rule 210.4 now reads: The purpose of this Rule is to provide for preconstruction review of major sources and major modifications involving attainment (or unclassified) affected pollutants including Greenhouse Gases (GHGs) by incorporating the federal PSD rule requirements by reference into the District's Rules and Regulations.

Changes in Incorporation by Reference

The EPA made the following comment regarding Section III, Incorporation By Reference: *While the model rule recommended using the most recent July 1, 2011 date, the tailoring rule did not become effective until Aug. 2, 2010. Therefore the date cited must be either: the date of adoption or the effective date of the GHG Tailoring Rule i.e., August 2, 2010. If you plan on adopting this rule after July 1, 2011, then you could also use that date.* In response the District changed the “in effect date” to July 1, 2011 and added the phrase or at the date of adoption.

In response to EPA's suggestion, (p)(6-8) was added the Section III.A and (p)(1) was added to Section III.D.2.

SB 288

The currently adopted of Rule 201.4 has been adopted by the District Board but has not been SIP approved. Because the District has an adopted PSD rule, ARB believes that the 1/6/2011 proposed revision to the rule is a relaxation and allows sources to backslide. The ARB suggested that the District remove all referenced sections of 40 CFR Part 52.21 relating to PALS.

In response to ARB's concerns, the District added Section III.B to the Rule which states: In accordance with the requirements of SB 288 the following Sections of 40 CFR Part 52.21 are excluded: (a)(2)(iv)(v), (b)(2)(iv), (b)(20)(v), (b)(48)(iv), and (aa) and Section III.D.3 which state: The phrase “other than projects at a source with a PAL” in 40 CFR 52.21(r)(6) shall be removed.

II. 2/8/2011 DRAFT

ARB/EPA COMMENTS

The following changes were made to the 2/8/2011 proposed revision of Rule 210.4 in response to ARB and EPA comments.

Revised Purpose

The District was asked to expand and broaden the language in Section I, Purpose. In response Section I was revised from: ‘The purpose of this Rule is to provide for preconstruction review of major sources and major modifications involving

attainment (or unclassified) affected pollutants including Greenhouse Gases (GHGs) by incorporating the federal PSD rule requirements by reference into the District's Rules and Regulations".

To: The purpose of this Rule is to incorporate the federal Prevention of Significant Deterioration (PSD) rule requirements into the District's Rules and Regulations by incorporating the federal requirements by reference. The PSD program is a construction permitting program for new major facilities and major modifications to existing major facilities located in areas classified as attainment or in areas that are unclassifiable for any regulated NSR pollutant including greenhouse gases.

Incorporated by Reference

EPA suggested that subsections (p)(6-8) be added as exclusions to the Incorporated by Reference section of the Rule. After further analysis the District realized that even more subsections of 40 CFR 52.21 should be excluded in order to satisfy the requirements of SB 288. These excluded subsections are: (a)(2)(iv)(v), (b)(2)(iv), (b)(20)(v), (b)(48)(iv), and (aa).

The following language has been added to Section III.D.3. at EPA's request: The phrase "other than projects at a source with a PAL" in 40 CFR 52.21(r)(6) shall be removed.

III. 10/13/2011 DRAFT

In addition to the changes made in response to ARB and EPA's comments mentioned in Section II above, the 10/13/2011 draft of Rule 210.4 was reformatted to fit the District's standard rule template. Many of the sections were moved from the previous draft and a few new sections were added.

Definitions

Section II, Definitions has been added to the Rule to revise some of the terms used in 40 CFR 52.21 to better fit Rule 210.4. Section II, Definitions states: The terms used in this rule are defined in 40 CFR Part 52.21(b) in effect on (date of adoption) unless revised definition is provided below. See Section II of Rule 210.4 for complete list of revised terms.

Applicability

The Applicability Section has also been substantially expanded.

Incorporated by Reference

To aid in clarity the term All references to 40 CFR 52.21 in this Rule refer to the CFR in effect on (date of adoption) has been added to this section. Exemption, Greenhouse Gas Air Quality Analysis: Greenhouse gas emissions shall not be subject to the requirements of subsections (k) or (m) of 40 CFR Part 52.21 in effect on (date of adoption) has also been added.

ARB/EPA COMMENTS

The following changes have been made to the 10/13/2011 proposed revision of Rule 210.4 following the 11/9/2011 workshop in response to ARB and EPA comments.

Purpose

The EPA commented on Section I, Purpose: *Key to this description is that PSD applies to areas classified as attainment or unclassifiable, which can only be for NAAQS pollutants. The fact that PSD applies to all regulated pollutants, except for pollutants an area is classified NA, is the way to talk about overall PSD applicability.*

In response regulated NSR pollutant including Greenhouse Gases (GHGs) was replaced with criteria air pollutant in Section I, Purpose.

Language in Section I, Purpose has been revised as follows: The purpose of this Rule is to include the federal Prevention of Significant Deterioration (PSD) rule requirements into the Eastern Kern Air Pollution Control District's (District) Rules and Regulations by incorporating the federal requirements by reference. The PSD program is a construction permitting program for new major source facilities and major modifications to existing major source facilities located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

Definitions

It was suggested that the term "Administrator" be changed to "APCO" because: *While the next definition of Admin. clarifies this point, it is really for the purposes of the 52.21 IBR where the word Administrator is already hard wired. Since this is new text and for clarity, this should read APCO.*

All instances where Administrator was used has been revised to APCD in the currently proposed revision of Rule 210.4.

Section II.C, Allowable Emissions was deleted based on EPA's recommendation.

The District was asked to add NO_x to Section II.F.2. which is amended as follows: Any net emissions increase that is significant for VOCs or NO_x shall be considered significant for ozone.

Applicability

EPA asked that the term “EPA’s final and full approval” in Section III, Applicability be changed to “EPA’s final approval”. EPA explains: *By including this language, it precludes EPA from granting a limited approval/disapproval, which we often do if we find some minor issue that can be fixed at a later date, therefore we strongly recommend that you remove this term.*

Section III, Applicability has been revised as follows: The provisions of this rule shall apply to any source and the owner or operator of any source subject to any requirement under 40 CFR Part 52.21 as incorporated into this rule. This rule shall become effective upon the effective date of the federal Environmental Protection Agency’s (EPA’s) final approval of Rule 210.4.

Requirements

EPA commented that Section V.B, Exemption, Greenhouse Gas Air Quality Analysis: *Is an exemption for an otherwise applicable requirement, so it belongs in Section IV, Requirements, not under IBR.*

In response an Exemption Section was added to the rule and the language from Section V.B was moved into that section.

EPA commented that: *SJV added this language to the Requirements Section, which EPA does not believe is needed, but which is acceptable if District’s want to use it to provide additional clarity.*

E. Except as specified in Section E.1, the PSD requirements of this rule shall be incorporated into and made enforceable through authority to construct permits and permits to operate according to the permitting requirements of {insert District rule or Regulation} of the District’s Rules and Regulations.

1. For power plants which will be licensed by the California Energy Commission, the PSD requirements of this rule shall be incorporated into and made enforceable through Determinations of Compliance and Permits to Operate according to the requirements of {insert District rule and Section No.}, and the permitting requirements of {insert District rule or Regulation} of the District’s Rules and Regulations.

The District did not add this language to Rule 210.4 because it did not believe it was necessary.

INDUSTRY & PUBLIC COMMENTS

The following questions were asked by industry representatives at the 11/9/2011 workshop in Rosamond, CA.

What are the benefits of the District taking over PSD?

Once the District's PSD program is approved by the EPA it will become SIP approved. The District will be responsible for all aspects of the PSD process, including appeals. By handling the entire PSD process, the District will be able to offer industry a more rapid turnaround time on PSD permits which will include any appeal. Overall the PSD process will become streamlined once the District becomes the lead agency.

Can a source use emissions data from further back than the two most recent years?

If the most recent two years are misrepresentative or inaccurate due to economical, mechanical, or other such factors, the District may go back as far as five years to gather the most accurate emissions data for a source. A source must get District's approval of what two year's data will best represent a source's emissions prior to submitting the data.

What is the Greenhouse Gas threshold trigger for PSD?

For a new source, GHG emissions which exceed 100,000 tpy of CO₂e and 100 or 250 tpy of GHG on a mass basis. The 100 or 250 tpy depends on the list of 28 source categories. Note that both the CO₂e and mass based test must be met to trigger PSD for GHGs.

For a modified source, GHG emissions which exceed 75,000 tpy of CO₂e and 0 tpy of GHG on a mass basis.

Will an existing source be subject to a new PSD review from the District once the District takes over PSD?

A new source and an existing source with a modification will be subject to the PSD permit review process. An existing source with a modification will only be subject to PSD review for the new equipment/modification. An existing source that has no modifications will not be subject to a PSD review. An existing source's PSD permit will stand as it is.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

APPENDIX D

AMENDED RULE 210.4

PREVENTION OF SIGNIFICANT DETERIORATION

EQUIVALENCY DEMONSTRATION

Eastern Kern Air Pollution Control District
Rule 210.4 – Prevention of Significant Deterioration (PSD)
State Implementation Plan Equivalency Demonstration
12/6/2011

I. Executive Summary

In 2002, the United States Environmental Protection Agency (EPA) approved modifications to the federal Prevention of Significant Deterioration (PSD) regulations, Title 40 of the Code of Federal Regulations (hereinafter, CFR) Part 52.21 (PSD Reform). Each state is required to amend its regulations to conform to the new federal program. If the state program deviates from the federal provisions, it must perform an equivalency analysis demonstrating its program is no less stringent than the federal program.

In response to the EPA Reform effort, California enacted Senate Bill 288 (SB288) Protect California Air Act of 2003. SB288 prohibits districts from making rule changes that would weaken the permitting rules that were approved in the State Implementation Plan (SIP) or submitted for approval before December 30, 2002. The Eastern Kern Air Pollution Control District (District) operative PSD rule is the 1999 amended version of Rule 210.4, which was submitted to EPA for inclusion in the SIP on October 29, 1999; however, EPA has never acted on this rule submittal.

District's review of the current federal regulations indicated that some of the new provisions in 40 CFR 52.21 would weaken the District's current (1999) regulatory program. As required by SB288, the District's rule excludes or replaces those PSD Reform provisions. In an effort to comply with SB 288, the District prepared this analysis to demonstrate to EPA that amended Rule 210.4 is no less stringent than the PSD federal provisions.

II. Background

A. Federal Program

On December 31, 2002, the U.S. Environmental Protection Agency (EPA) revised its regulations governing the New Source Review (NSR) programs (NSR Reform), including PSD requirements, under parts C and D of Title 1 of the Clean Air Act. (67 Fed. Reg. 80185). The rulemaking included the following features that created issues of concern:

1. 10-year Look-back for Establishing Emissions Baseline: PSD requirements are triggered when emission increases for a new project or modification exceed specified levels. The emission increase is measured by comparing estimated new emissions to a baseline emission. NSR Reform changes how the baseline emissions are calculated. The rule allows a facility to use any 24-month period in the previous 10 years (or 5 years if an Electrical Utility Steam Generating Unit (EGU)) as long as all current control requirements are taken into account. Rule 210.4 (1999) and proposed amended Rule 210.4 limit the look back to the prior 24 months, unless the District agrees with the facility that the prior 24 months are not representative of normal operations.

2. Calculating Emissions Increases: NSR Reform added an optional method for calculating emissions increases resulting from facility modifications (additional method applies to all sources, just with differing requirements). NSR Reform now defaults to use an actual-to-projected-actual test (baseline actual emissions compared to the estimated actual emissions after the change). The source still has the option to use an actual to potential test (baseline actual emissions compared to the maximum potential emissions after emission controls, taking in to account all enforceable restrictions) to avoid some additional monitoring and recordkeeping requirements associated with the projected actual method. Rule 210.4 (1999) and proposed amended Rule 210.4 only allow an “actual-to-potential” test.
3. Plantwide Applicability Limits (PALs): NSR Reform provides an option for facilities to make changes to their operations without triggering PSD, so long as a facility agrees to operate within a strict facility wide emissions cap, called a Plantwide Applicability Limit or PAL. Rule 210.4 (1999) and proposed amended Rule 210.4 do not include PALS.
4. Pollution Control and Prevention Projects: NSR Reform created a process allowing facilities that undertake environmentally beneficial projects to avoid emission controls for ancillary emissions increases resulting from the installation of certain pollution control and prevention projects. Rule 210.4 (1999) and proposed amended Rule 210.4 do not include a similar program.
5. Clean Unit Provision: NSR Reform gave facilities that install “clean units” operational flexibility if they continue to operate within permitted limits. Clean units must have an NSR permit or other regulatory limit that requires the use of the best air pollution control technologies. Rule 210.4 (1999) and proposed amended Rule 210.4 do not include a similar provision.

The last two features were vacated by the U.S. Court of Appeals for the District of Columbia in *State of New York, et al., v. U.S. Environmental Protection Agency, et al.*, 413 F.3d 3 (D.C. Cir 2005), and are no longer part of the federally revised program.

B. SB 288

In 2003, California Legislature passed Senate Bill 288, Protect California Air Act of 2003 (SB 288). SB 288 is intended to prevent the weakening of local air district programs which may occur from the implementation of NSR Reform. The bill prohibits a district from adopting changes to the District’s NSR rule or PSD program that have the effect of making the program less stringent than it was on December 31, 2002.

The District’s current version of Rule 210.4, PSD was amended and submitted to EPA for inclusion in the SIP in 1999. Although Rule 210.4 was never approved in the SIP, it was submitted for approval, and thus triggers SB 288 applicability. Consequently, the current version of 40 CFR 52.21 (which includes the NSR Reforms) cannot be adopted by reference because Rule 210.4 is more stringent. In order to satisfy SB288, proposed amendments to Rule 210.4 must exclude or modify certain NSR Reform provisions of the 2011 federal PSD

program that are considered to be less stringent. These provisions include: Major Modification definition, Baseline Actual Emissions definition, Actual-to-Projected-Actual applicability, and Plantwide Applicability Limitations.

III. Equivalency Determination Analysis

NSR Reform permits State and local agencies to deviate from the new federal regulations, but requires that they demonstrate that their existing/revised program is no less stringent as the federal PSD program which includes the NSR Reform provisions². This analysis fulfills that requirement.

A. Stringency of state and local requirements limit anticipated voluntary reductions from PSD Reform

NSR Reform's environmental impact analysis relies on benefits from encouraging facilities to voluntarily implement emission controls. There are several factors that render this result unlikely, if not impossible. The first category of factors relates to the stringency of the Non-PSD program (i.e. minor sources), the second relates to requirements under state laws on climate change, and the third relates to the applicability of some of EPA's key analytical assumptions.

To achieve and maintain the federal standards, California and the District have established some of the most stringent rules in the nation to control carbon monoxide (CO), particulate matter and ozone precursors (NO_x, and VOC) and sulfur oxides (as a precursor to particulate matter) to meet federal attainment or maintenance requirements. Because of the severity of air quality problems in the area, state and federal laws and regulations require the District to regularly review its rules and make changes to those rules to insure sources implement the best available controls on new and modified sources and best available retrofit control technologies for existing sources.

Additionally, the District's New Source and Modified Source Review (NSR) Rule (210.1) provides a level of stringency that exceeds PSD requirements in all cases. The majority of the Stringency in Rule 210.1 is provided by two mechanisms: Best Available Control Technology {BACT} (defined to be equivalent to EPA's LAER {Lowest Achievable Emission Rate}) and Offsets.

1. **BACT**: For the District, Rule 210.1 already requires BACT "...for all affected pollutants expected to be emitted from a new emissions unit and for all affected pollutants expected to increase from a modified existing emissions unit." Where an affected pollutant is an air contaminant for which there are ambient air quality standards; these include the following: PM_{2.5}, PM₁₀, SO_x, NO_x, VOC (as ozone precursor), CO, and lead particulates. The requirement to apply BACT minimizes air contaminant emissions for new and modified sources of air pollution that have any increase in any affected pollutant, which means BACT is being applied to many more projects than is required under federal PSD.

2. Offsets: For the District, Offsets are required for new or modified stationary source of PM₁₀ or SO_x when the District's NSR balance, calculated pursuant to Subsection IV.D of Rule 210.1., equals or exceeds 15-tons per year (tpy) for PM₁₀ or 27-tpy for SO_x (as SO₂). Additionally, Offsets are required for new or modified stationary source of NO_x or VOC when the Stationary Source Potential to Emit (SSPE) calculated pursuant to Subsection IV.E of Rule 210.1, equals or exceeds 25-tpy for NO_x (as NO₂) or VOC. The District is currently attainment for CO; therefore, there is not an Offset trigger for CO. Use of Offsets effectively sets a facility emissions cap (much like a PAL) because for most major sources the District's NSR Balance and SSPE exceed Offset thresholds; therefore, facilities are required to reduce onsite emissions or be required to purchase Offsets at very high cost.

Although nonattainment pollutants are not subject to PSD rules, regulations directed at nonattainment pollutants frequently provide significant ancillary reductions in attainment, GHG and other regulated pollutants, since all of the potential PSD sources also emit nonattainment pollutants. For example, with a few exceptions, the District's PSD sources exceed PSD applicability thresholds because of their combustion emissions, and combustion emissions include PSD pollutants (GHGs, CO, and NO₂) as well as nonattainment pollutants, NO_x, VOC (as precursors to ozone) and PM₁₀ and its precursors. Therefore, state and local nonattainment pollutant rules directly affect the potential PSD sources and their emissions.

In addition to the stringent local requirements contained in the District's attainment and nonattainment programs, recent state laws affecting GHG's will further tighten the mandatory controls on pollutants in the District. AB32 (California State Climate Change Law) has and will continue to require controls on GHGs, including energy efficiency and emissions reductions. AB32 and California's Cap and Trade rule go beyond federal PSD requirements. AB32 will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020, ultimately achieving an 80% reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors will be established and facilities subject to the cap will be able to trade permits (allowances) to emit GHGs.

These historic and on-going requirements, which are unaffected by PSD Reform, will significantly limit the emissions from stationary sources in the District. The combined impact of state and local laws and rules, including AB32 and its Cap and Trade program, limits opportunities for additional voluntary controls and make any remaining opportunities for additional voluntary controls much more expensive than in other parts of the country. Consequently, PSD Reform provisions that arguably create an incentive for sources to implement voluntary controls or reduce emissions will be ineffective in the District.

B. EPA's Supplemental Analysis does not account for the invalidation of a portion of PSD Reform

EPA made a determination at the time of PSD Reform approval that the provisions are more stringent than the pre-2002 base program from a nationwide perspective. The determination did not include state- or district-specific evaluations. The decision relied primarily on EPA's

“Supplemental Analysis of the Environmental Impact of the Final NSR Improvement Rule (November 21, 2002) (hereinafter “Supplemental Analysis”), which examined the changes using the federal regulations as the baseline for comparison. This study relied largely on anecdotal evidence and concluded that final revisions were “environmentally beneficial” based on the assumption that all five of the revisions would be implemented together (67 Fed. Reg. 80185, 80241, and Supplemental Analysis p.2.). However, since two of the five measures, Clean Units and Pollution Control Project exemption, were vacated by the Court of Appeals, EPA’s conclusion that there is a net environmental benefit is out-dated.

In addition, a Government Accounting Office (GAO) study found that [the Supplemental Analysis] did not adequately represent the revised rule’s effect on: (i) energy efficiency projects industry wide, or (ii) the impact of Reform on *overall emissions* under the new federal rules. See *EPA Should Use Available Data to Monitor the Effects of Its Revisions the New Source Review Program*, GAO-03-947, August 2003. pp. 23-24. Appendix 2. See also *Reform or Rollback?: How EPA’s Changes to New Source Review Affect Air Pollution in 12 States*, Environmental Integrity Project and the Council State Governments/Eastern Regional Conference, July 28, 2003. Appendix 3.

C. EPA’s Supplemental Analysis of the impacts of PSD Reform does not reflect conditions in Eastern Kern

EPA’s Supplemental Analysis relied heavily on reductions from the application of PALs to six sources and extrapolated those results to assess impacts in three industrial categories: pharmaceutical manufacturing, semi-conductor manufacturing, and automobile manufacturing. None of these types of PSD facilities are located within the District. Therefore, the estimated emissions benefits would not be realized. To address this the District’s analysis followed EPA’s general protocol by analyzing existing sources for key regulated PSD pollutants common to nearly all of the potentially impacted PSD sources in Eastern Kern. This analysis considered the impact if the PSD determinations were made today using each source’s emissions information. Each sources’ permitting history was also used to provide supplementary information for the analysis of impacts of potential future permitting actions. As demonstrated below, the analysis established that PALs implementation would provide fewer emissions reductions than implementation of proposed amended Rule 210.4.

In addition to the PAL analysis, the District reviewed the relative stringency of the applicability tests and emissions baseline revisions and found that those Reform provisions provide no benefits in Eastern Kern when compared to proposed amended Rule 210.4. The EPA analysis already conceded that: (i) the actual-to-projected actual test is likely to have only a limited environmental benefit, and (ii) the change in the emissions baseline may allow a small number of sources to avoid PSD permitting because of the availability of a higher baseline. Our analysis confirmed that the proposed rule would result in more emission reductions than either of the Reform revisions.

IV. Identification of Potential PSD Facilities in Eastern Kern

This analysis followed EPA’s general protocol by analyzing existing sources for key regulated PSD pollutants common to nearly all of the potentially impacted PSD sources in the District; GHGs¹, NO₂², CO, SO₂, and PM₁₀. Table 1 identifies the potential to emit for the 7 facilities in the District that could be affected by PSD. District staff did not evaluate VOCs because it is an ozone precursor subject to nonattainment NSR rather than PSD.

As indicated in Table 1, seven facilities in District have a current potential to emit (PTE) NO₂, SO₂, PM₁₀, or CO greater than 250 tpy (100 tpy³ for 28 specific sources), or CO_{2e} in excess of the 100,000 tpy threshold; and consequently, may trigger PSD requirements if they make a major modification to their facility.

Table 1

Facility	Type	PTE Emissions TPY					Estimated PTE TPY CO _{2e}
		PM ₁₀	SOx as SO ₂	NOx as NO ₂	VOC	CO	GHG
California Portland Cement Co.	Cement Plant	776.1	2,702.2	3,863.5	90.9	852.9	1,088,557
Edwards Air Force Base	Military Base	93.4	307.4	7,093.1	5,278.9	5,799.3	249,944
Lehigh Southwest Cement Co.	Cement Plant	463.9	1,358.0	1,325.4	201.0	3,991.6	352,769
EIF Mojave, LLC	Cogeneration Facility	36.1	59.0	50.0	6.6	100.0	257,544
National Cement Company	Cement Plant	470.1	140.1	2,053.9	45.1	5,286.1	405,829
Naval Air Weapons Station	Military Base	8.5	0.5	79.7	23.2	157.9	60,337
U.S. Borax, Incorporated	Non-Metallic Mine	675.3	1,012.6	987.8	31.3	2,024.4	768,958

V. Plantwide Applicability Limits

Proposed Amended Rule 210.4 excludes all federal PSD requirement provisions related to Plantwide Applicability Limits (PALs) in 52.21(aa). That section allows a source to request a PSD PAL; once a PSD PAL is established, changes can be made at the facility as long as the facility’s actual emissions remain below the PAL. The PAL level is the source’s baseline actual emissions plus the PSD significance levels. The PAL must be adjusted downward to reflect the benefits of any known new requirements that will affect the facility. Increases in PAL levels to account for new or modified equipment are only allowed in limited circumstances. PAL limits expire after 10 years. Upon reaching the 10-year mark the source has the option to allow the PAL to expire (and cease being an operational restriction) or to revise the PAL.

¹ This analysis uses GHGs expressed as CO_{2e} as defined in 40CFR51.166(b)(48)(i–ii).

² The analysis uses NOx emissions because NO₂ data is not readily available.

³ 100 tpy threshold if facility is one of 28 specific source facilities listed in 40 CFR 52.21(b), otherwise 250 tpy.

EPA's Analysis states that "a PAL, is an *optional* approach that will provide you, the owners or operators of major stationary sources, with the ability to manage facility-wide emissions without triggering [PSD]" (67FR80206 IV.A. paragraph 1, December 31, 2002). EPA further states that PALs promote "voluntary improvements in pollution controls by creating an incentive for you [sources] to control existing and new emissions units" (67FR80206 IV.A. paragraph 2, December 31, 2002). EPA goes on to describe the benefits achieved under PALs using the results from their *Evaluation of Implementation Experiences with Innovative Air Permits* study of VOC emissions under six permits that included PAL-like provisions. EPA extrapolated that study's results to estimate the potential VOC emissions reductions from PALs for three source categories: pharmaceuticals, semiconductors, and automobile manufacturing (auto manufacturing does not include auto parts manufacturing or automobile refinishing). EPA's analysis included estimated VOC emissions benefits from PALs based on assumptions about the percentage of sources that might opt to participate in the PAL program and the percentage of additional emissions reductions that might be achieved by establishing a PAL below the facility's current potential to emit.

EPA's analysis and conclusions do not support adoption of PSD Reform in the District because:

- (i) Sources are implementing facility improvements in response to other programs, and PALs will not affect the rate of these improvements through implementation of additional voluntary controls;
- (ii) The use of VOC's as a measure of reductions is inappropriate in the District because VOC emissions are subject to NSR requirements not PSD requirements;
- (iii) Existing facility-wide limits are more stringent under Proposed Amended Rule 210.4 than the Reform PAL limits; and
- (iv) The PSD Reform monitoring and recordkeeping requirements are met through Rule 210.4 and Title V requirements.

PSD Reform does not provide any added protections.

VI. General Prevention of Significant Deterioration (PSD) Requirements (Rule 210.4)

Rule 210.4—Prevention of Significant Deterioration incorporates by reference most of the federal PSD program as codified in Title 40 of the Code of Federal Regulations (CFR) Part 52.21. It is comprised of seven sections: Section I – Purpose, Section II – Definitions, Section III – Applicability, Section IV – Incorporation by Reference, Section V – Requirements; and Section VI – Public Participation. Section I includes provisions that outline the purpose of the rule. Section II contains eight definitions that are intended to clarify or replace the definitions provided in 40 CFR Part 52.21. Section III outlines sources subject to this rule under requirements of 40 CFR Part 52.21. Section IV incorporates by reference 40 CFR Part 52.21 with some exclusions (to be described later). Section V outlines owner/operator and Air District Control Officer requirements for obtaining and issuing a PSD permit. Section IV – outlines District actions regarding administrative requirements for public notice of permit actions.

Rule 210.4 only applies to new major sources and major modifications at existing major sources. Amended Rule 210.4 will take the place of current Rule 210.4, as it pertains to the federal PSD program.

Section IV Exclusions

The following sections of 40 CFR 52.21 are specifically excluded from incorporation into Rule 210.4: subsections (a)(1) Plan Disapproval, (b)(55-58) Equipment Replacement Program (ERP) definitions struck down by DC Circuit Court but not yet removed from the CFR, (f) Reserved, (g) Redesignation, (i)(1)(i-v) and (ix-xi), (i)(6-8) Specific Exemptions, (p)(6-8) Class I Variances by the Governor, (q) Public Participation, (s) Environmental impact statements, (t) Disputed permits or redesignations, (u) Delegation of authority, (v) Innovative control technology, (w) Permit rescission, (x) Reserved, (y) Reserved, (z) Reserved, (aa) PALs and (cc) ERP provisions struck down by DC Circuit Court. EPA has reviewed these exclusions and, except for sections (q) and (aa), concurs that these excluded sections are not necessary to implement a PSD program. For section (q), Rule 210.4 provides its own specific definition for this term, which includes the necessary public notice and hearing provisions required by a PSD program. For section (aa), please see the discussion below in the section entitled New Source Review Reforms, regarding the District's equivalency demonstration which provides a justification for excluding the section (aa) requirements.

VII. New Source Review Solution

District makes the following assertion: District's NSR rule (Rule 210.1) is equivalent to and in many cases more stringent than the most recent Part 52.21 (PSD Reform). PSD is only utilized for facilities classified as major sources. A major source is defined as the following:

Any stationary source having the potential to emit a regulated air pollutant or a HAP in quantities equal to or exceeding the lesser of any of the following thresholds:

1. 100 tons per year (tpy) of any regulated air pollutant;
2. 50 tpy of volatile organic compounds or oxides of nitrogen (if in an area classified as serious non-attainment for ozone);
3. 70 tpy of PM₁₀ (if in an area classified as serious nonattainment for PM₁₀);
4. 10 tpy of one HAP or 25 tpy of two or more HAP's; or
5. Any lesser quantity threshold promulgated by the U.S. EPA.

Additionally, the District's NSR rule has the following Offset thresholds based on the District's NSR Balance (for PM₁₀ and SO_x) and Stationary Source Potential to Emit (for NO_x and VOC):

Table 2

Offset Thresholds in Tons per Year				
PM ₁₀	SO _x as SO ₂	NO _x as NO ₂	VOC	CO
15	27	25	25	NA

In applying the District's NSR rule to any new emissions or modified emissions unit at a Major Source the process begins with the determination of an emissions increase. If there is not an increase in emissions BACT and Offsets need not be applied, and the project may proceed. Given there is an emissions increase for a new or modified emissions unit BACT is applied to the subject emissions unit. However, if the subject emissions unit is existing (modified emissions unit) has an emissions increase and currently has BACT, Offsets is the driving mechanism.

Much like PALs each major source has Plantwide (facility) emissions, based on the District's NSR Balance and SSPE, similar to Potential to Emit (PTE) emissions listed on Table 1. Please note SSEP and PTE for NO_x and VOC are identical; however, PM₁₀ and SO_x PTE and the District's NSR Balance are different (based on calculation methods). Moreover, in accordance with 40 CFR 52.21(23)(i) PDS is triggered at the following thresholds:

Table 3

Significant Thresholds in Tons per Year				
PM ₁₀	SO _x as SO ₂	NO _x as NO ₂	VOC (as O ₃)	CO
15	40	40	40	100

Based on the Significant Thresholds for the above pollutants and Offset thresholds for the same pollutants one can easily see District's Offset thresholds are at least equivalent to PDS requirements excluding CO (District is attainment for CO; therefore it would not be included as a PDS pollutant). Other Significant pollutants listed in (23)(i) are:

Pollutant or Source	Amount	Units
Lead	0.6	tpy
Fluorides	3	tpy
Sulfuric acid mist	7	tpy
Hydrogen sulfide (H ₂ S)	10	tpy
Total reduced sulfur (including H ₂ S)	10	tpy
Reduced sulfur compounds (including H ₂ S)	10	tpy
Municipal waste combustor organics (measured dioxins and furans)	3.5 x10 ⁻⁶	tpy
Municipal waste combustor metals (measured as particulate matter)	15	tpy
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	40	tpy
Municipal solid waste landfills (measured as non-methane organic compounds)	50	tpy

Except for Municipal solid waste landfills (measured as non-methane organic compounds) all pollutant and source are toxic air contaminant emissions. These pollutants would undergo a rigorous analysis to minimize the toxic emissions including utilizing modeling to analyze and ultimately minimize health effects on the community at large. For toxic emissions the maximum

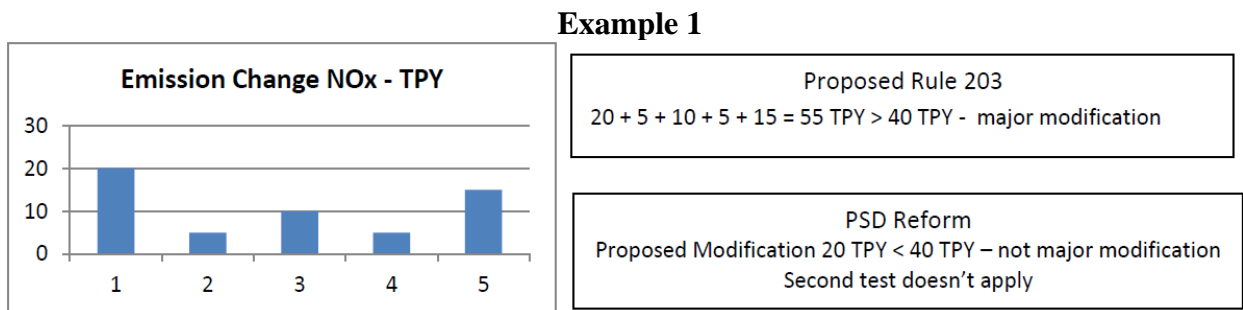
risk level is 10 per 1,000,000. If a health risk 10 per million is exceeded Toxic BACT control measures are implements further reducing toxic emissions. District’s NSR review provides a higher stringency than a flat emissions rate.

Based on the information provided, District NSR process provides, at the minimum, equivalent controls for a major modification, and in most cases, higher level of control.

VIII. Major Modification

Proposed Amended Rule 210.4 defines a major modification as any physical or operational change at a major stationary source that would result in a cumulative significant net emissions increase. PSD Reform only classifies a major modification as significant if it would result in a significant increase both individually and cumulatively. Unlike the proposed rule, PSD Reform would not consider accumulated emissions from a series of less than significant emissions increases if the emissions increase from the proposed modification of the source standing alone is less than significant.

Historical information for the District demonstrates that typical permit modifications are for individual projects that emit less than the PSD significance level(s). Under proposed Amended Rule 210.4 a major modification would be triggered if the 5 year accumulation of less than significant emissions changes is significant. Under PSD Reform a major modification would only be triggered if both tests are met, the proposed modification is greater than significant, and the 5 year accumulation of emissions changes is significant. As demonstrated in example 1 below, if a source has made 5 individual “less than significant” modifications over the last five years it would be a major modification under Rule 210.4, but not under PSD Reform.



The District concludes that excluding the first part of EPA’s major modification tests – is the proposed modification significant – and only including the significant net emissions increase part of the test is at least as stringent as the current federal PSD rule.

IX. Fugitive Emissions

Proposed Amended Rule 210.4 would include fugitive emissions in the same manner as the current federal regulations. Proposed Amended Rule 210.4 adopts by reference 40 CFR 52.21 (in effect on date of adoption) including the definition of fugitive emissions. See fugitive emissions discussion in Rule 210.4, Section III.D and Rule 210.4, Section IV.E.3.h. No equivalency determination is needed for this provision.

X. New Emission Units

Proposed Amended Rule 210.4 requires the use of the actual-to-potential test for new emissions units in the same manner as current federal regulations. Proposed Amended Rule 210.4 adopts by reference 40 CFR 52.21 (in effect on date of adoption). See also the new units discussion in Rule 210.4, Sections IV.A.4, IV.D.3, IV.F.8. No equivalency determination is needed for this section.

XI. Conclusion

In Eastern Kern, because of the particular sources subject to the PSD rule, and because of the very stringent rules and regulations already in place, proposed Amended Rule 210.4 is at least as stringent as the federal PSD Reform rules. In fact, when the EPA's analysis of the Reform provisions is applied to Eastern Kern as opposed to the national review undertaken by EPA the proposed Amended Rule 210.4 is more stringent than the Reform provisions.