SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

STAFF REPORT

SUMMARY OF THE PROPOSAL TO

Rule 203 – PREVENTION OF SIGNIFICANT DETERIORATION

AND REQUIRED FINDINGS

December 22, 2010

And Appendices

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Overview

The District currently meets the federal health-based air quality standards for NO₂, lead (Pb), SO₂ and CO, and is referred to as an attainment or unclassified area for those pollutants. Sacramento County is also expected to be designated as an attainment area for federal PM10 standards. The federal Clean Air Act requires districts to adopt a program called Prevention of Significant Deterioration (PSD) to control air pollution from major large sources.

Rule 203 was adopted on February 26, 1991. The District submitted Rule 203 as adopted February 26, 1991 to the EPA for approval into the SIP. EPA has not taken action on the submitted 1991 version of Rule 203. Rule 203, Prevention of Significant Deterioration, adopts the federal requirements of 40 CFR Part 52.21, Chapter 1 by reference.

In June, 2010, EPA promulgated the so-called Tailoring Rule¹ which defined the PSD requirements for greenhouse gases (GHG) which became subject to regulation when EPA adopted GHG requirements for motor vehicles in May, 2010. GHG are subject to PSD requirements starting January 2, 2011 with additional requirements beginning July 1, 2011.

U.S. EPA Action to Ensure Authority to Issue Permits under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas Emissions: Finding of Substantial Inadequacy and SIP Call²: In December 2010, the EPA Administrator signed a finding that the EPA-approved State Implementation Plans (SIP) of 13 states are substantially inadequate to meet CAA requirements because they do not apply Prevention of Significant Deterioration requirements to GHG-emitting sources. Since EPA never approved the 1991 PSD rule, their determination was based on the last SIP approved PSD rule, adopted in 1984. The District is the only air district in California with the inadequacy. The Administrator issued a SIP call setting a deadline of January 31, 2011 for the District to submit a corrective SIP revision to assure the PSD program will apply to GHG-emitting sources. If the District is unable to submit a SIP revision before the January deadline, EPA intends to immediately issue a finding of failure to submit a required SIP submission under CAA section 110(c)(1)(A) and will promulgate a Federal Implementation Plan (FIP).

In addition to the changes needed to meet Clean Air Act (CAA) requirements for PSD regulated pollutants, including greenhouse gases (GHG), amendments to Rule 203 must conform to the requirements of SB288, the Protect California Air Act of 2003. This California law prevents the District from adopting PSD requirements less stringent than the "new source review rules (including prevention of significant deterioration) or regulations that existed on December 30, 2002³" and specifies that the rule for comparison as:

"those new source review rules and regulations for both nonattainment and prevention of significant deterioration for new, modified, repaired, or replaced sources that have been adopted by the district governing board on or prior to December 30, 2002, that have been

¹ "Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, Final Rule", Federal Register 75 (June 3, 2010) p. 31514

 ² "Action to Ensure Authority to Issue Permits under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas Emissions: Finding of Substantial Inadequacy and SIP Call, Final Rule", Federal Register 75 (December 13, 2010) p. 77698

³ California Health and Safety Code § 42504(a)

submitted to the EPA by the state board for inclusion into the SIP and are pending approval or have been approved by the EPA⁴."

Therefore, the proposed amendments to Rule 203 cannot be less stringent than the 1991 version of Rule 203.

Summary of the effect of the proposal

The proposed amendments will do several things:

- Update the adoption by reference to incorporate EPA's most recent PSD rule, to the extent permitted by state law,
- Limit certain provisions in the 1991 rule that improperly established that the District could act as the EPA Administrator, had that rule been approved by EPA,
- Incorporate the new federal GHG requirements, and
- Replace the outdated SIP approved PSD rule, adopted in 1984.

COST IMPACTS

Section 40703 of the California Health and Safety Code requires that the District consider and make public its findings relating to the cost effectiveness of implementing an emissions control measure.

Impact on Businesses in Sacramento: Proposed amendments to Rule 203 are required to meet federal Clean Air Act EPA PSD rule requirements, and to respond to EPA's SIP call. Starting January 2, 2011, PSD GHG requirements are applicable to major sources and major modifications that are subject to PSD for another regulated pollutant and increase GHG emissions above specified thresholds. Starting July 1, 2011, sources can trigger PSD requirements based solely on GHG emissions. Existing major sources are not subject to PSD permitting unless making a major modification.

The cost impacts from this rule change depend on the following factors:

- Whether a new major source or a significant modification(s) at an existing major source is proposed.
- Whether the source plans include controls or other strategies that are considered the best available control technologies (BACT) for GHGs.
- The actual cost of BACT controls or strategies. The definition of BACT includes consideration of the cost of the controls. In other words, controls that are overly costly would not be required to meet BACT requirements.

BACT is determined based on a case-by-case analysis of the specific project proposal. Because the costs are based on the specific details of future project proposals, we cannot project the potential costs. EPA recently published a GHG guidance document⁵ with information on potential

⁴ California Health and Safety Code § 42505

⁵ U.S. EPA. *PSD and Title V Permitting Guidance For Greenhouse Gases*. November 2010

GHG BACT however the guidance does not provide any final BACT determinations. There is uncertainty concerning the costs of GHG BACT due to limited data and guidance.

There is no change in costs for PSD requirements for the other regulated pollutants because they were already required by existing District rules, and state and federal laws and regulations.

Cost to District: Historically, there have been very few sources that trigger PSD requirements. At a December 15, 2010 meeting with potentially impacted sources (major sources and those with high GHG emissions), staff asked whether any source anticipated making modifications that might trigger a PSD review. No source indicated any plans for such a change. Therefore, at the current time, staff does not anticipate a need for additional staff resources due to the proposed amendments.

EMISSIONS IMPACT

The proposed revisions require BACT for GHG new major sources and significant modifications at major sources with emissions over the GHG applicability thresholds. However, as discussed in the Cost Impacts - Impacts on Business above, the actual impacts, and associated emissions reductions from any additional controls or strategies required to meet BACT requirements, depend on the factors noted above and, therefore, staff cannot estimate the quantity of emission reduction benefits anticipated from the proposed rule amendments.

There is no emission reduction benefit associated with other regulated pollutants, because BACT is already required under existing Rule 203, and other District rules, and state and federal laws. The amendments meet existing federal requirements and make more enforceable the requirements of prevention of significant deterioration minimize any new emissions into the attainment area.

SOCIOECONOMIC IMPACT ANALYSIS

CHSC Section 40728.5 requires a district to perform an assessment of the socioeconomic impacts before adopting, amending, or repealing a rule that will significantly affect air quality or emission limitations. The District Board is required to actively consider the socioeconomic impacts of the proposal and make a good faith effort to minimize adverse socioeconomic impacts.

CHSC Section 40728.5 requires discussion of:

- 1. The type of industry or business, including small business, affected by the proposed rule or rule amendments.
- 2. The impact of the proposed rule or rule amendments on employment and the economy of the region.
- 3. The range of probable costs, including costs to industry or business, including small business.
- 4. The availability and cost-effectiveness of alternatives to the proposed rule or rule amendments.
- 5. The emission reduction potential of the rule or regulation.
- 6. The necessity of adopting, amending, or repealing the rule or regulation to attain state and federal ambient air standards.

<u>Type of industry or business, including small business, affected by the proposed rule:</u> Rule 203 applies to any stationary source that installs or modifies emissions units that exceed specified trigger levels for major source, as listed in 40 CFR Part 52.21(b)(1)(i), and major modification, as defined in 40 CFR Part 52.21(b)(2)(i) and the levels listed in 40 CFR Part 52.21(b)(23)(i). In general this PSD rule applies to sources in the 21 source categories, as listed in 40 CFR Part 52.21(b)(1)(i)(a), that emits more than 100 tpy or any source that emits more than 250 tpy of any regulated NSR pollutant (as defined in 40 CFR 52.21(b)(50)). The sources subject to the proposed rule could include chemical production plants, food processors, manufacturing plants, large boilers used at hospitals or universities, power plants, and waste management and remediation such as landfills.

<u>Impact on employment and economy in the District of the proposed rule:</u> The addition of BACT for GHG may require additional controls, however as discussed in the cost impact sections above, the specific costs, and consequent impact on employment or the economy cannot be estimated at this time. Given the historic infrequent triggering of PSD, it is unlikely to be significant at this time.

Range of probable costs, including costs to industry or business, including small business of the proposed rule: As discussed above, the amendments to Rule 203 do not impose additional costs any existing permitted stationary source. New or modified major stationary sources that trigger a PSD permit review for GHG emissions may be required to install BACT for GHG. The cost to install may vary depending on the BACT cost effectiveness determination for the type of equipment installed.

<u>Availability and cost effectiveness of alternatives to the proposed rule:</u> Staff is amending the rule in order to address EPA requirements for the District to submit a SIP approvable rule. The only alternative is to not amend Rule 203 and choose not to comply with federal regulations and the Clean Air Act requirements. This will result in EPA imposing a Federal Implementation Plan (FIP) rule imposing similar GHG BACT requirements with identical costs.

<u>Emission reduction potential of the proposed amendments:</u> Staff cannot estimate additional emissions reductions because staff cannot predict how many sources will be required to comply or the specific control strategy requirements. Based on past permitting actions, PSD has been triggered infrequently and the current major sources have not identified any anticipated major modifications. Since the proposed amendments may require BACT for GHG at new major sources and significant modifications for GHG-emitting sources, the amendments may result in an overall benefit to air quality in the District.

<u>Necessity of adopting the amendments:</u> Staff proposed amendments in order to comply with federal regulations and Clean Air Act requirements.

FINDINGS

The California Health and Safety Code (HSC), Division 26, Air Resources, requires local districts to comply with a rule adoption protocol as set forth in Section 40727 of the Code. This section has been revised through legislative mandate to contain six findings that the District must make when developing, amending, or repealing a rule. These findings, effective January 1, 1992, and their definitions are listed in the table below.

Rule 203 – Required Findings

Finding	Finding Determination
Authority: The District must find that a provision of law or of a state or federal regulation permits or requires the District to adopt, amend, or repeal the rule.	The District is authorized to adopt and amend Rule 203 by California Health and Safety Code (HSC) Sections 40001, 40702, 41010 and 42300. [HSC Section 40727(b)(2)].
Necessity: The District must find that the rulemaking demonstrates a need exists for the rule, or for its amendment or repeal.	It is necessary to adopt the proposed amendments to Rule 203 to comply with the Federal Clean Air Act (42 USC 7410(a)(2)(C), 7410(l), 7471, 7475, 7479, and 7515), and 40 Code of Federal Regulations Part 52.21. [HSC Section 40727(b)(1)].
Clarity: The District must find that the rule is written or displayed so that its meaning can be easily understood by the persons directly affected by it.	Staff has reviewed the proposed rule and determined that it can be understood by the affected parties. In addition, the record contains no evidence that people directly affected by the rule cannot understand the rule. HSC Section 40727(b)(3)].
Consistency: The rule is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.	The proposed rule does not conflict with, and is not contradictory to, existing statutes, court decisions, or state or federal regulations. [HSC Section 40727(b)(4)].
Non-Duplication: The District must find that either: 1) The rule does not impose the same requirements as an existing state or federal regulation; or (2) that the duplicative requirements are necessary or proper to execute the powers and duties granted to, and imposed upon the District.	The proposed rule duplicates state or federal regulations for permitting programs. The duplicative requirements are necessary in order to execute the powers and duties imposed upon the District. [HSC Section 40727(b)(5)].
Reference: The District must refer to any statute, court decision, or other provision of law that the District implements, interprets, or makes specific by adopting, amending or repealing the rule.	In adopting the proposed rule, the District is implementing the requirements of HSC Sections 41010, and Sections of the Federal Clean Air Act (42 USC 7410(a)(2)(C), 7471, and 7475) [HSC Section 40727(b)(6)]
Additional Informational Requirements: In complying with HSC Section 40727.2, the District must identify all federal requirements and District rules that apply to the same equipment or source type as the proposed rule or amendments.	A comparison with federal requirements is located below. [HSC Section 40727.2].

California HSC Section 40727.2 Matrix Proposed Rule 203 – Prevention of Significant Deterioration

Elements of	Specific	Proposed Rule 203	40 CFR Part 52,
Comparison	Provisions	-	Subpart I
Exemptions		Same as federal requirements except pre-1978 sources (no longer applicable)	Increment consumption; Nonattainment pollutants; Nonprofit health or nonprofit educational; Pre-1978 sources; PSD monitoring; Significant Impact Levels (SIL); Temporary sources, air quality monitoring
Averaging Provisions		Not Applicable	Not Applicable
Units		Same as federal requirements	Tons/year, CO ₂ e, μg/m ³
Emissions Limits	Emissions Reduction	Same as federal requirements	Ambient air increments; BACT;
	Compliance alternatives	Same as federal requirements	Air Quality Modeling
Permit Conditions		Same as federal requirements	Federally enforceable permit conditions
Operating Parameters		Same as federal requirements	Stack heights; Monitor emissions; Recordkeeping for hours of operations, throughput, and emissions.
Work Practice Requirements		Same as federal requirements	Monitor emissions; Recordkeeping for hours of operations, throughput, and emissions.
Monitoring/Records	Recordkeeping	Same as federal requirements	Air Quality Analysis (source impact analysis, source information, visibility, soil and vegetation impact analysis), .
	Frequency	Same as federal requirements	Pre-application analysis
Monitoring/Testing	Test Methods	Same as federal requirements	Pre- and post- construction monitoring
	Frequency	Same as federal requirements	Pre-construction monitoring for a period of at least one year preceding application (may be allowed to be period as short as 4 months); Post- construction monitoring as necessary

APPENDIX A

LIST OF CHANGES TO RULES

Rule 203 – Prevention of Significant Operations

NEW SECTION NUMBER	EXISTING SECTION NUMBER	PROPOSED CHANGES
N/A	N/A	Removed adopt by reference language. The proposed amendments to Rule 203 incorporate by reference the latest version of 40 CFR 52.21 (see Section 103). Several sections are excluded from the incorporation by reference language to satisfy EPA and SB288 requirements. Those sections are related to the NSR reforms EPA promulgated on December 31, 2002.
101	N/A	Added "purpose" section to clarify rule provides for preconstruction review requirements for new and modified major stationary air pollution sources that emit attainment pollutants. Rule 203 is intended to incorporate federal prevention of significant deterioration requirements into the District's rules and regulations.
102	N/A	Added "applicability" section to clarify rule applies to sources subject to any requirement under federal PSD regulations (40 CFR 52.21). Also clarified that the most stringent requirement applies in cases of conflict or duplication. The applicability procedures contained in 40 CFR 52.21(a)(2) are revised as set forth by the procedures contained in Sections 102.1-102.3.
102.1- 102.3	N/A	Added applicability procedures consistent with SB288 requirements of not adopting federal NSR reform. These applicability procedures are consistent with the sections of 40 CFR 52.21(i)(1-3) that were in effect on December 30, 2002.
103	N/A	Added "Incorporation by Reference" section incorporating all the provisions of 40 CFR 52.21, in effect at the date of adoption, as part of the Rules and Regulations of the District.
104	N/A	Excluded sections of 40 CFR 52.21 for all regulated NSR pollutants including GHG, consistent with the CAPCOA model rule. These excluded sections contain reserved sections, public participation (replaced with explicit language in rule), sections struck down by court decisions, and other sections not applicable when adopting by reference (environmental impact statements, disputed permits, delegation of authority, and permit recision).
105	N0/A	Excluded two sections of 40 CFR 52.21 only for the purposes of GHG. Sections (k), source impact analysis, and (m), air quality analysis, are excluded due to the absence of a National Ambient Air Quality Standard (NAAQS) for GHG.
201	N/A	Added "actual emissions" definition to revise the definition as set forth in Sections 201.1-201.4 whenever reference is made to the term "actual emissions" or any reference to 40 CFR 52.21(b)(21).
201.1- 201.4	N/A	Added "actual emissions" procedures consistent with SB288 requirements of not adopting federal NSR reform. These

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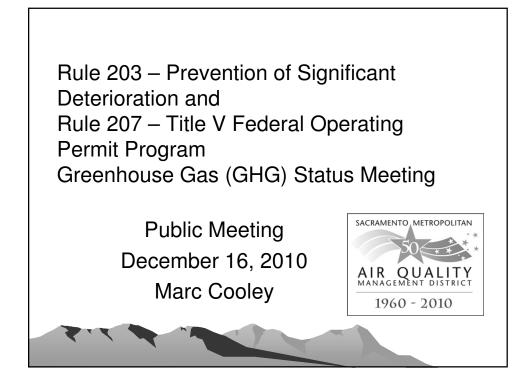
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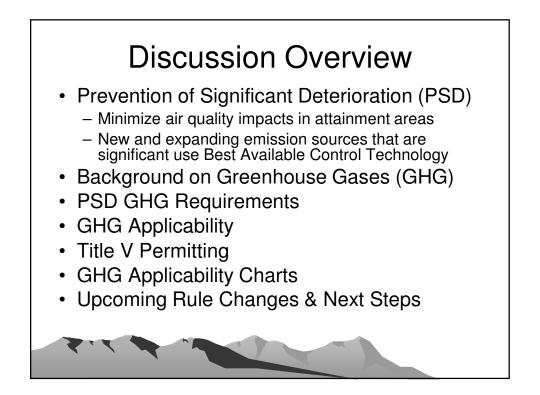
NEW SECTION NUMBER	EXISTING SECTION NUMBER	PROPOSED CHANGES
		calculation procedures are consistent with 40 CFR 52.21(b)(21) in effect July 1, 1990.
202	N/A	Added "administrator" definition consistent with CAPCOA model rule. Sections where the Administrator of EPA is appropriate are noted and all other uses of the term "administrator" shall mean "Air Pollution Control Officer."
203	N/A	Added "allowable emissions" definition as set forth in Sections 203.1-203.2, consistent with the CAPCOA model rule, whenever reference is made to the term "allowable emissions" or any reference to 40 CFR 52.21(b)(16).
204	N/A	Added "baseline actual emissions" definition as set forth in Sections 204.1-204.4 whenever reference is made to the term "baseline actual emissions" or any reference to 40 CFR 52.21(b)(48).
204.1- 204.4	N/A	Added "baseline actual emissions" procedures consistent with SB288 requirements of not adopting federal NSR reform. These calculation procedures are consistent with 40 CFR 52.21(b)(21) in effect July 1, 1990.
205	N/A	Added "major modification" definition as set forth in Sections 205.1- 205.3 whenever reference is made to the term "major modification" or any reference to 40 CFR 52.21(b)(2).
205.1- 205.3	N/A	Added "major modification" procedures consistent with SB288 requirements of not adopting federal NSR reform. These calculation procedures are consistent with 40 CFR 52.21(b)(2) in effect July 1, 1990.
206	N/A	Added "net emissions increase" definition as set forth in Sections 206.1-206.8 whenever reference is made to the term "net emissions increase" or any reference to 40 CFR 52.21(b)(3).
206.1- 206.8	N/A	Added "net emissions increase" procedures consistent with SB288 requirements of not adopting federal NSR reform. These calculation procedures are consistent with 40 CFR 52.21(b)(3) in effect July 1, 2002.
207	N/A	Added "paragraph (q)" definition consistent with the CAPCOA model rule. This definition is included due to paragraph (q) being excluded from the incorporation by reference in Section 103. Specific procedures are provided related to sources impacting Federal Class I areas [40 CFR 52.21(p)(1)].
208	N/A	Added "potential to emit" definition to consistent with the CAPCOA model rule.
301	N/A	Added "requirements" heading consistent with District rules and regulations.
301.1	N/A	Added section to require a PSD permit pursuant to Rule 203 is required before construction begins, consistent with the Clean Air Act.
301.2	N/A	Added section to require compliance with Rule 203 before issuing a PSD permit consistent with the Clean Air Act.

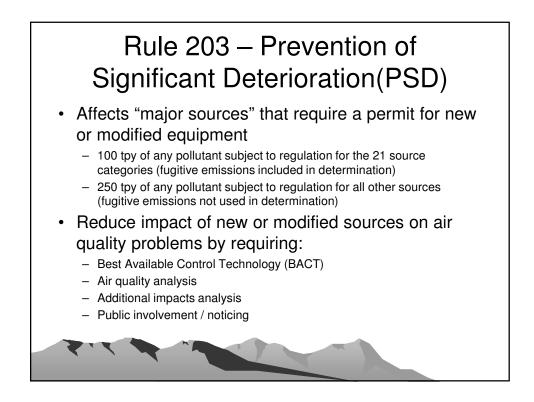
NEW SECTION NUMBER	EXISTING SECTION NUMBER	PROPOSED CHANGES
301.3	N/A	Added section consistent with CAPCOA model rule clarifying fees are required for obtaining a PSD permit.
401	N/A	Added "public participation requirements" consistent with the CAPCOA model rule, 40 CFR 52.21, and District requirements. Public participation for PSD permits includes additional notification compared to other District rules, such that notification shall be provided to: EPA, any state or local air districts, cities and counties, any regional land use planning agencies, any state, federal land manager, or Indian governing body whose lands may be affected by emissions from the source or modification.

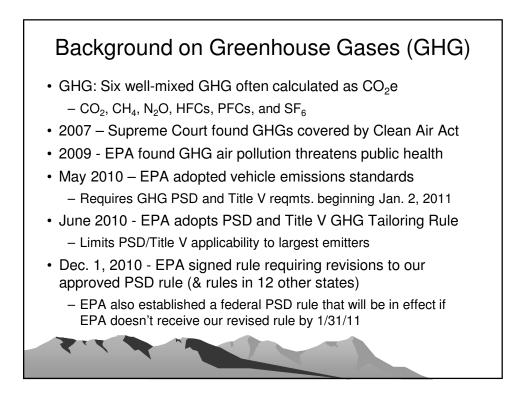
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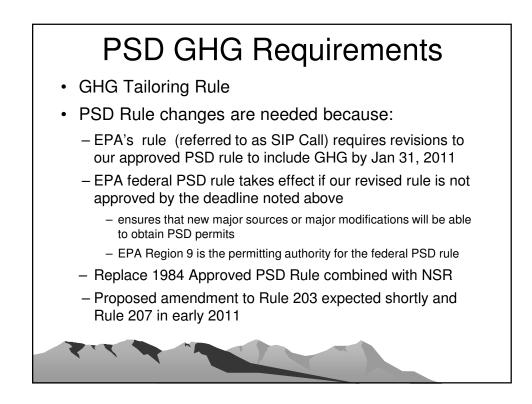
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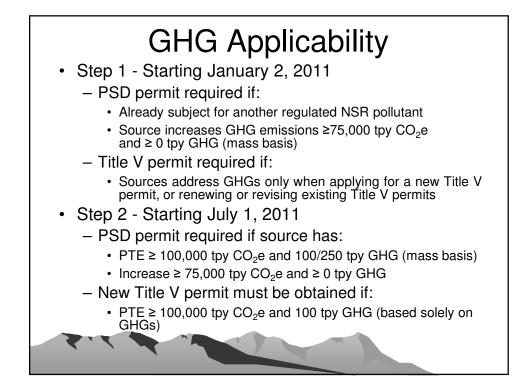


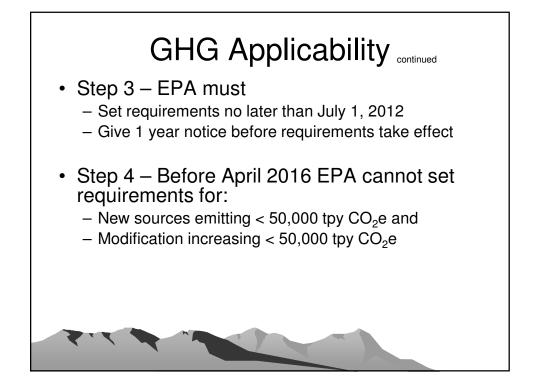




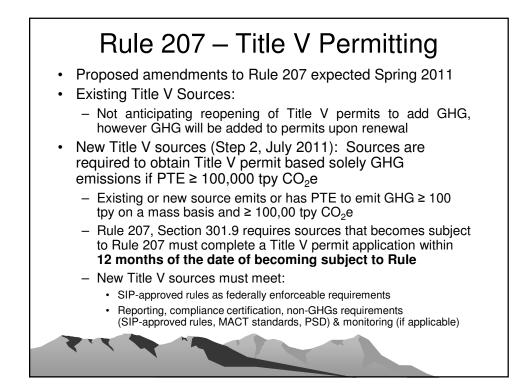








Deadline	PSD Action Required	
	(Apply Best Available Control Technology (BACT) for GHG)	
January 2, 2011 and after	Step 1 - Sources required to obtain PSD permits for another regulated pollutant must obtain a GHG PSD permit if sum of 6 GHG pollutant increased and collective GHG emissions increased 75,000 tons per year (tpy) CO_2e or more	
July 1, 2011	Step 2 – If a source is not required to get a PSD permit for another regulated pollutant, but emits \geq 100,000 CO ₂ e, they must obtain a GHG PSD permit if it is:	
	 new major source for GHG - must have both: a) sum of 6 GHG pollutants 100/250 tpy or more and b) collective GHG emissions 100,000 TPY CO₂e o more, or 	
	 modifications to existing major sources, sum of 6 GHG pollutants increased and collective GHG emissions increased 75,000 tpy CO₂e or more 	
July 1, 2013	EPA may require PSD permitting at more sources, effective not later than 2013, in rules issued not later than July 1, 2012	
April 30, 2016	No source that emits, or increases their emissions, less than 50,000 tpy CO_2e will be required to obtain permits before April 30, 2016	



Application Deadline	Title V Action Required	District Deadline for Title V Issuance
12 months after commencing operation	All sources that trigger a GHG PSD permit (Step 1 or Step 2) – must submit Title V application within 12 months after commencing operation under their new/modified PSD permit	18 months
July 1, 2012	Sources that emit sum of 6 GHG pollutants \geq 100 tpy and sum of 6 GHG pollutants \geq 100,000 tpy CO ₂ e or more must obtain a Title V permit if they do not already have one.	18 months
12 months prior to renewal	Existing Title V sources (for another regulated pollutant) that do not modify must include information about their GHG emissions in their Title V permit renewal application (even those \geq 100,000 tpy CO ₂ e)	12 months
Title V prom	chart assumes the only "applicable requirement" for a Title V perm / permits may also be required if a new NSPS or other GHG appli ulgated. nay require add'l sources to have Title V permit in rulemaking exp	cable requirement is

