SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

FINAL STAFF REPORT:

PROPOSED RULE 1714 – PREVENTION OF SIGNIFICANT DETERIORATION FOR GREENHOUSE GASES, AND PROPOSED AMENDED REGULATIONS XXX – TITLE V PERMITS

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Table of Contents

Executive Summary **1**
Regulatory Background **1**
Public Process **2**
Purpose and Applicability **2**
Legal Authority **3**
AQMP and Legal Mandates **3**
Affected Industry **3**
Summary of Proposed Rule Amendments **3**
Emission Reductions **7**
Comparative Analysis **7**
California Environmental Quality Act (CEQA) **8**
Socioeconomic Assessment **8**
References **9**
Response to Comments **10**

EXECUTIVE SUMMARY

The District staff is proposing to amend Regulations XVII – Prevention of Significant Deterioration (PSD), and XXX – Title V Permits, to implement federally mandated requirements for greenhouse gases (GHG) for the PSD and Title V programs. These federal programs are implemented by the District through the enforcement of these two regulations. Regulation XVII amendments will incorporate federal requirements for GHGs by reference into a new rule, Rule 1714 – PSD for GHGs. Regulation XXX amendments would add federal GHG requirements into the current District rules.

REGULATORY BACKGROUND

On June 3, 2010, U.S. EPA promulgated a "tailoring rule" to describe the applicability criteria that determine which existing or new stationary sources and which modification projects become subject to permitting requirements for GHG emissions under the PSD and Title V programs of the CAA. The District is presently implementing the PSD program under a Partial Delegation from U.S. EPA Region IX. The District implements its Regulation XVII – PSD to address attainment air pollutants. The District's Regulation XVII is presently not approved by U.S. EPA into the SIP. Staff intends to incorporate the GHG provisions for the PSD program by reference by adopting a new rule. The District received approval of Title V as a permitting program for major sources November 21, 2003 (68 FR 65637) and it is implemented through Regulation XXX. The District staff's proposed amendments for Title V (Regulation XXX) retain the basic approach of the regulations and add GHGs to the structure.

Regulation XVII – PSD implements a federally mandated program that provides a pre-construction review and permitting authority for new major stationary sources and major modifications at existing major stationary sources for areas that are designated "attainment" or "unclassifiable" for a National Ambient Air Quality Standard (NAAQS). It works in tandem with "nonattainment" New Source Review (District Regulation XIII) for areas that are not in attainment for a NAAQS.

The South Coast Air Basin is classified "attainment" for carbon monoxide, nitrogen dioxide and sulfur dioxide. It is "nonattainment" for ozone, particulate matter $(PM)_{2.5}$ and PM_{10}. The Salton Sea Air Basin is "unclassified" for carbon monoxide, nitrogen dioxide, sulfur dioxide, and $PM_{2.5}$ and nonattainment for ozone and PM_{10}. Both Basins have requested U.S. EPA to re-designate them as "attainment" for PM_{10} based on recent monitoring.

Title V is a federally enforceable program for permitting large sources in an inclusive format to assist in their compliance with provisions of the CAA.

U.S. EPA has defined GHGs as the following: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydroflurocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). This is consistent with the six gases included in state programs, such as AB 32, and the District's Regulation XXVII – Climate Change. These gases are compared using a term called "Carbon Dioxide Equivalent" (CO_2e), which means the amount of carbon dioxide (CO_2) that would have the same global warming potential as a given amount of another greenhouse gas. Global Warming Potential (GWP) means the capacity to heat the atmosphere, calculated as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram (kg) of a substance relative to that of 1 kg of CO_2. GWPs are calculated according to the factors for a 100-year time horizon.

The U.S. EPA determined that without their rulemaking, PSD and Title V requirements would, as of January 2, 2011, apply to sources of GHGs with emissions of 100 tons per year (tpy), and PSD requirements would apply at levels of 100 tons per year or 250 ton per year, depending on the source category, the threshold levels for criteria attainment pollutants under the CAA. This level of emissions for GHGs is considered extremely low and would greatly increase the number of sources requiring permits, impose undue costs on small sources, overwhelm the resources of permitting authorities, and severely impair the functioning of the PSD and Title V programs. For example, without the GHG tailoring provisions, there would be an estimated six million new Title V permits nationwide, of which, the AQMD's proportionate share could be 300,000 new permits (based on population size). This compares to approximately 500 current Title V permits.

The current U.S. EPA tailoring rule creates a phase-in process starting with the largest GHG emitters covered beginning January 2, 2011, and smaller emitters delayed entry into the programs until at least April 30, 2016.

PUBLIC PROCESS

A Public Workshop/CEQA Scoping Session was held September 9, 2010. Approximately 60 people attended and five comment letters were submitted after the workshop. A Public Consultation Meeting will be held October 12, 2010

PURPOSE AND APPLICABILITY

The purpose of these rule amendments is to implement the federally promulgated requirements for GHG emissions in the PSD and Title V programs. PSD requirements are presently implemented through Regulation XVII and the GHG requirements will be adopted by reference and incorporated into Proposed Rule 1714. Title V requirements are presently implemented through Regulation XXX and the GHG requirements will be incorporated through amendments to Rules 3000, 3001, 3002, 3003, 3005, 3006, and 3008.

LEGAL AUTHORITY

The AQMD obtains authority to adopt, amend, or repeal rules and regulations which control air pollution from Health and Safety Code §§ 40000, 40001, 40440, 40725-40728, 42300 *et seq*.

AQMP AND LEGAL MANDATES

The District is proposing Rule 1714 and amending rules in Regulation XXX – Title V Permits, to implement the federal requirements for GHGs. These rules are not control measures in the AQMP, but are mandatory requirements under the Clean Air Act. Proposed Rule 1714 – PSD for GHGs, will implement the GHG requirements by an adoption by reference of the federal requirements. The GHG requirements for Title V programs will be included in Regulation XXX by amending Rules 3000, 3001, 3002, 3003, 3005, 3006, and 3008 of that regulation.

AFFECTED INDUSTRY

Staff has identified 55 existing facilities which may potentially be impacted by the Title V federal regulations. These facilities are primarily classified in the following industries: cement, cogeneration units, electric power generation, hydrogen plant, inorganic chemical manufacturing, and petroleum refineries. This information is based on GHG emissions reported to CARB for 2008. Please see the discussion below in "summary of proposed rule amendments" for specifics as to what the effective dates are and the threshold levels triggering inclusion. Staff is not able to estimate the facilities that may be subject to PSD.

SUMMARY OF PROPOSED RULE AMENDMENTS

The amendments to Regulations XVII – Prevention of Significant Deterioration, and XXX - Title V Permits, are proposed to implement federal changes to 40 CFR Parts 52 and 70, published June 3, 2010 and effective August 2, 2010. The first step phase-in date is January 2, 2011, followed by a second step implementation date of July 1, 2011.

Regulation XVII – Prevention of Significant Deterioration

One new rule is proposed for Regulation XVII, Proposed Rule 1714 – PSD for GHGs, to adopt by reference the provisions related to GHGs from the federal PSD rule as delineated in 40 CFR Part 52.21. The rule specifies what portions of 40 CFR, Part 52.21 do not apply to GHG emissions. These exclusions are as follows:

(a)(1) Plan disapproval - the provisions of this section are applicable to any SIP which has been disapproved with respect to PSD of air quality in any portion of any State where the existing air quality is better than the national ambient air quality standards. There is no air standard applicable for GHGs.

(b)(13) Definition of Baseline Concentration – pertains to increment consumption which has to do with criteria pollutants.

(b)(14) Major source baseline date – pertains to criteria attainment pollutants.
(b)(15) Definition of Baseline Area –pertains to criteria attainment pollutants.
(b)(55-58) Equipment Replacement Project (ERP) definitions struck down by the DC Circuit Court but not yet removed from the CFR.
(c) Ambient air increments - pertains to criteria attainment pollutants.
(d) Ambient air ceilings - pertains to criteria attainment pollutants.
(e) Restrictions on area classifications –restricts designation of certain Class I areas – pertains to criteria pollutants.
(f) Reserved
(g) Redesignation – pertains to re-designation of areas, which is not applicable to pollutants with no NAAQS.
(h) Stack heights - this has to do with modeling which does not apply to GHGs.
(i)(1)(i-v) Exemptions dealing with construction commenced in the 1977-1980 range.
(i)(1)(ix-xi) Exemptions dealing with construction commenced in 1987.
(i)(6-8) Exemptions dealing with construction commenced in 1988.
(k) Source impact analysis – pertains to NAAQS thus it does not apply to GHGs.
(l) Air quality modeling – there is no NAAQS for GHGs and thus modeling is not applicable to GHGs.
(m) Air quality analysis - pertains to criteria attainment pollutants.
(o) Additional impact analyses – GHG emissions are not a local impact issue.
(p) Sources impacting Federal Class I Areas - pertains to criteria attainment pollutants.
(q) Public participation – Not needed as District Rule 1714 contains public participation requirements.
(s) Environmental impact statements –This pertains to a federal agency preparing NEPA documents.
(t) Disputed permits or redesignations - pertains to criteria attainment pollutants.
(u) Delegation of authority – this applies to the U.S. EPA Administrator; the District is not delegating authority to anyone.
(v) Innovation control technology - this provision is optional, not a required element of a PSD program. Also, this section refers to 40 CFR Part 124.10, which is not the standard for public notice when the rule is incorporated by reference.
(w) Permit rescission – pertains to rescinding permits
(x) Reserved
(y) Reserved
(z) Reserved
(aa) Actual plantwide applicability limitation (PALs) – the District does not have delegation of authority for PALs which are bubble plans (plantwide) for criteria pollutants, not applicable to GHGs. Not adopting this provision for GHGs makes the District's program more stringent than the federal program because bubbles (PALs) add compliance flexibility.

(cc) ERP provisions struck down by DC Circuit Court but not yet removed from the CFR.

In general, the federal rules establish the dates for a phased-in multi-step process. Specifically, beginning January 2, 2011 (Step 1) any source already subject to the PSD regulation for new construction or a modification for any attainment pollutant, and having an increase in GHG emissions on a carbon dioxide equivalent (CO_2e) basis (Global Warming Potential [GWP] applied) $\geq$75,000 tpy CO_2e **and** with a net emission increase greater than zero of GHG emissions on a mass basis (no GWP applied), will be required to undergo assessment of BACT for GHG emissions. To clarify, GHG emissions calculated on a CO_2e basis takes the sum of the six GHG specified above and weights them according to their GWP by multiplying each component by its GWP factor before summing them to make the total GHG emissions. If the calculation is done on a mass basis, no weighting is done and thus no GWP factor is applied. The emissions are the simple summation of all the GHG emissions. As a result, AQMD would begin requiring BACT, as applicable, for GHGs for these sources.

Step 2 of the phased-in implementation for GHG sources has an effective date of July 1, 2011. At this point, all sources subject to the regulation through Step 1 will continue to be subject to the rule and additionally, sources with a potential to emit (PTE) GHGs $\geq$100,000 tpy CO_2e and emitting GHGs or an NSR pollutant above the 100/250 tpy (mass based) statutory thresholds, will be subject to the regulation. Furthermore, on or after the July 1, 2011 date, modifications of a "major source", including those determined to be a major source solely on the basis of GHG emissions, with a net emissions increase of GHGs of $\geq$75,000 CO_2e (GWP applied), and a net increase in GHGs calculated on a mass basis (no GWP applied) equal to or exceeding 0 tpy, will be subject to the regulation. These facilities will be subject to BACT for GHGs. The U.S. EPA regulation also states that sources emitting <50,000 tpy CO_2e would not be subject to the regulation until at least April 30, 2016. Additional federal rulemaking would be necessary to regulate such sources.

The federal rule defines GHGs as the following: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydroflurocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These gases are compared using a term called "Carbon Dioxide Equivalent" (CO_2e), which means the amount of carbon dioxide (CO_2) that would have the same global warming potential as a given amount of another greenhouse gas. Global Warming Potential (GWP) means the capacity to heat the atmosphere, calculated as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram (kg) of a substance relative to that of 1 kg of CO_2. GWPs are calculated according to the factors for a 100-year time horizon.

The regulation grants relief to sources emitting GHG, because the major source definition as it applies to attainment pollutants is either 100 or 250 tpy, depending on the source category. As stated above, if this threshold level was used for GHGs, it would greatly increase the number of sources requiring permits, impose undue costs on small sources, overwhelm the resources of permitting authorities, and severely impair the functioning to

the PSD and Title V programs. To be considered a "major source" based solely on GHG emissions, a GHG source must have the potential to emit GHGs in amounts of, or exceeding, 100 tpy for sources in any of the 28 major emitting facility source categories listed under PSD CFR 40 Part 52; or 250 tpy for any other stationary source, calculated on a GHG mass basis (no GWP applied); **and** with the potential to emit GHGs of 100,000 or more tpy CO_2e.

PR 1714 also contains the same public participation requirements as the District enforces for all other sources regulated under Regulation XVII – PSD by Rule 1710 - Analysis, Notice and Reporting.

Regulation XXX – Title V Permits

Amendments to Regulation XXX are proposed for seven of the nine rules in the regulation. PAR 3000 – General, is proposed for amendment by adding three definitions: carbon dioxide equivalent (CO_2e); global warming potential (GWP); and greenhouse gas (GHG). One definition, Minor Permit Revision is proposed to be amended by adding a threshold value for GHGs. A table is also added listing the GHGs and their GWPs.

PAR 3001 – Applicability, contains language similar to that found in PAR 3002 regarding the inclusion of sources with GHG emissions into the program. The proposal adds an exemption for sources with PTE GHGs less than 100,000 tpy CO_2e and PTE less than the thresholds in Table 2 of this rule for all other air contaminants if the facility takes an enforceable condition in a permit or modifies the facility to such a level.

PAR 3002 – Requirements, is proposed to be amended by adding the January 2, 2011 and July 1, 2011, dates for including GHGs in Title V permits. The first date (Step 1) requires GHGs to be added to any permit that is being obtained or modified under Title V due to an attainment air contaminant. In other words, if a Title V permit is required for any attainment air contaminant, then applicable requirements for GHG emissions must be included in the permit. The July 1, 2011 date (Step 2) includes any source with a potential to emit (PTE) $\geq$ 100,000 tpy CO_2e (on a CO_2e basis with GWPs applied) and a PTE GHGs $\geq$ 100 tpy on a mass basis (no GWP applied). Language was presented in two options in paragraph (a)(3) regarding the GHG requirements to be presented in the Title V permit and whether they are "applicable" requirements and thus only those requirements under the federal CAA and the SIP; or "regulatory" requirements and thus in addition to applicable federal requirements would also include "state only" requirements, meaning requirements promulgated by state action only. Staff sought input on these two options through the public workshop process and after receiving several comments in support of Option 1, the proposed rule language reflects that only the federal or "applicable" requirements are to be included in the Title V permits. At present, there are no federal regulations that constitute "applicable requirements" for GHGs unless the source is subject to BACT for GHGs under PSD. Also, the proposed rule clarifies that on and after July 1, 2011, new or modified facilities with a PTE increase of $\geq$ 100,000 tpy CO_2e will be subject to Title V.

PAR 3003 – Applications, PAR 3005 – Permit Revisions, and PAR 3006 – Public Participation, are proposed for amendment only due to references in those rules to definitions in PAR 3000 – General, and the proposed changes in the numbering sequence in that proposed amended rule.

PAR 3008 – Potential to Emit Limitations, authorizes sources to cap their PTE to avoid applicability of Title V based on GHG emissions. The proposed amended rule reflects a clarification in the use of the term "annual" to reflect the current process of using 12-month rolling basis for determining actual emissions. Also, the definition of De Minimis Facility is proposed for amendment by adding sources emitting less than 25,000 tpy CO_2e of GHGs. This level is chosen to reflect sources at the GHG emission level of 25,000 tpy CO_2E needing to comply with mandatory reporting requirements. Also, PAR 3008 subdivision (d) adds sources with the PTE GHGs less than 50,000 tpy CO_2e level for PTE limitations.

Rule 3008 includes alternative recordkeeping provisions and operational limits for certain types of equipment. Staff believes equipment subject to the alternative limits would not trigger any of the current GHG thresholds. An emergency standby engine with output less than 1,000 brake horsepower (PAR 3008 (e)(2)(E)), and alternative operational limits for boilers ($\leq$100,000,000 Btu/hr) using $\leq$ 71,000,000 cubic feet of natural gas consumed in a 12-month period (PAR 3008, Table 1) would have GHG emissions far below the 50,000 tpy threshold level. For the engines, the amount of diesel combusted would be 1,000 bhp x 0.05gal/bhp-hr x 200 hrs./yr (max operational time) = 10,000 gals/year and with a value of 10.21 kg CO_2/gallon this yields 102 MT CO_2e. For the boilers the 71,000,000 square cubic feet natural gas equivalent is 3,834 MT CO_2e.

EMISSION REDUCTIONS

While requiring BACT for GHGs may result in either smaller future increases or future reductions of GHGs (and/or possibly criteria pollutants) compared to the status quo, it is impossible to quantify such benefits at the present time. In fact, Federal BACT for GHGs has not currently been finalized. There is an U.S. EPA Climate Change Work Group developing recommendations for U.S. EPA regarding guidelines for GHG BACT. It is likely that BACT for GHG will include energy efficiency and combustion fuel efficiency, but the actual measures, as well as the attendant efficacy, is, at this time, speculative.

Further, the District's CEQA process currently considers GHG emissions. This review requires owner and operators to quantify and address GHG emissions. The addition of these amendments to the CEQA process may not yield additional emission reductions.

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires a written analysis comparing the proposed amended rule with existing federal, State and District regulations. This analysis must include averaging provisions, operating parameters, work practice requirements,

and recordkeeping, monitoring, and reporting requirements associated with existing applicable rules and proposed regulations.

These rules encompass all sources and thus the statute should not be interpreted to require this agency to list all federal and state rules and regulations affecting these sources.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

SCAQMD staff has reviewed Proposed Rule 1714 and the proposed amendments to Regulation XXX – Title V Permits, and determined them to be exempt from CEQA requirements pursuant to State CEQA Guidelines §15268 – Ministerial Projects. The proposed project is considered to be ministerially exempt because the proposed project is implementing federal requirements and the SCAQMD has not exercised discretion in adopting the proposed project. Upon adoption of the proposed amendments, a Notice of Exemption will be prepared pursuant to CEQA Guidelines §15062 and filed with the county clerks in each county within the SCAQMD's jurisdiction and will be available at AQMD Headquarters, by calling the AQMD Public Information Center at (909) 396-2039, or by accessing AQMD's CEQA website at: www.aqmd.gov/ceqa.

SOCIOECONOMIC ANALYSIS

PARegs XXVII and XXX represent an adoption of the federal Tailoring Rule for PSD by reference and Title V by incorporation of federal requirements in Regulation XXX rules. Since the proposed amendments do not impose requirements beyond the federal rules, Title V and PSD permit holders are not expected to face additional costs or other socioeconomic impacts as a result of the proposed amendments. As such, a socioeconomic assessment is not required.

REFERENCES

1. U.S. EPA 75FR 31514, Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, June 3, 2010.

RESPONSE TO COMMENTS

The following comments were received during the public workshop held September 9, 2010 and the comment period, which ended September 17, 2010. Unless noted, the comments and responses deal with PSD.

U.S. EPA and CARB

1. Comment: U.S. EPA and CARB both commented that there needs to be consistent definitions of CO_2e, GHGs, and GWP for all Districts, EPA, and CARB.

   Response: Comment noted. The District looks forward to receiving further input on this issue. At the time of the publication of this report, this work was not yet completed.

Delegation/Applicability

2. Comment: Currently, the AQMD has delegation for PSD on new sources. After January, will AQMD implement GHG provisions?

   Response: Yes, under the proposed rules, if adopted.

3. Comment: It would be helpful for staff to develop a chart to indicate who has authority (federal vs. District) for what parts of PSD.

   Response: Please see response to comment # 4.

4. Comment: What areas of PSD does the District have delegation over?

   Response: The District currently has delegation for new major sources and for modified major sources if they go through the Regulation XVII calculation procedure and it is determined that PSD applies. The District does not have delegation for modified sources that use the method for calculating emissions increase set forth in the federal PSD regulation. The District does not have delegation for plantwide applicability limitation (PALs) or other modifications using NSR Reform calculation methodology.

5. Comment: Does SB 288 impact the GHG requirements?

   Response: The state requirement, SB 288, prohibits backsliding on NSR programs that were adopted prior to 2002. This amendment will not be impacted by SB 288, as the current program does not apply to GHGs, so adding requirements for GHGs does not make the NSR program less stringent.

6. Comment: The adoption of 40 CFR Part 52.21 Subpart A in total is confusing in that so many paragraphs are not available to District permittees by action of SB 288. It would be helpful for staff to create a table delineating which sections of

Part 52.21 are not applicable to the District by action of SB 288, irrespective of GHGs. In the same table, please delineate which of the remaining sections of Part 52.21 apply to GHGs.

Response: Please see response to comment # 5. SB 288 does not apply to this amendment. Staff has listed the sections of Part 52.21 that do not apply to GHGs in PR 1714 and also in the staff report.

7. Comment: How will the District address Clean Units, PALs, Pollution Control Projects (PCP), and calculation procedures? At the Public Workshop, staff noted that PALs are a current option for some PSD permit applicants. However this option is only available if EPA issues the PSD permit. If a PSD permit applicant wants to use PAL, can the applicant do so if Regulation XVII is made part of the SIP? What about if it is delegated? Or again, is the intention of the amendment to have no effect on pollutants other than GHG?

   Response: The commentor is correct that the intention of the amendments is to have no effect on pollutants other than GHGs. PALs and PCPs will remain an option only if U.S. EPA issues the PSD permit.

8. Comment: There are unintentional consequences of adopting all of Part 52.21, perhaps limiting flexibility down the road. For instance, under section 52.21 (m), the absence of a national ambient air quality standard could cause the Administrator to require air quality monitoring data collected during the year prior to a permit application. This could potentially impact many projects with unclear delays.

   Response: Section 52.21 (m) is excluded for GHG requirements in PR 1714.

9. Comment: Please provide a list of all the GHG applicable requirements known at this time in the staff report.

   Response: Staff has drafted the rule to require 40 CFR Part 52.21 and listed the non-applicable portions. All portions excluded for GHGs are also listed in the staff report.

10. Comment: The language in PR 1714 is confusing. Subdivision (a) says all provisions of Rule XVII still apply to other attainment pollutants and that proposed rule applies only to GHGs. Then subdivision (b) says, "Adopt by reference the Code of Federal Regulations Part 52, Subpart A, section 52.21." The definition of "attainment air contaminant" and "major source" in Rule 1702 effectively require regulation of any new source with GHG emissions greater than either 250 or 100 tpy. The rule is silent as to applicability of modification permitting requirements to unlisted "regulated pollutants" including GHGs. We assume that the District intends to bring its rule into conformity with the applicability thresholds in the EPA Tailoring Rule. However, the language in PR

1714 (b) does not refer to the amended GHG thresholds adopted in the Tailoring Rule but adopts Rule 52.21 in its entirety. This is confusing since section 52.21 covers criteria pollutants and other regulated pollutants besides GHGs. We would appreciate clarification of the action and regulatory language proposed by the District to allow for the application of the EPA Tailoring Rule GHG threshold provisions in PSD permits issued by the District.

Response: Subdivisions (a) and (b) referenced by the commentor are both parts of PR 1714 and thus apply to GHGs and only GHGs. PR 1714 states: "This rule sets forth preconstruction review requirements for greenhouse gases (GHG)." The provisions of this rule apply only to GHGs as defined by U.S. EPA to mean the air pollutant as an aggregate group of six GHGs: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. All other attainment air contaminants, as defined in Rule 1702 subdivision (a), shall be regulated for the purpose of PSD requirements pursuant to Regulation XVII, excluding Rule 1714." Staff believes this language clearly delineates between GHGs which will be regulated under Proposed Rule 1714 and the other pollutants regulated in all other rules in Regulation XVII. PR 1714 does not refer to the GHG threshold because it adopts those by reference in 40 CFR, Part 52.21 which contains the GHG thresholds. As specified in PR 1714, the adoption by reference of the federal language only applies to GHGs. Definitions in Rule 1702 are not applicable to GHGs, as no rule in Regulation XVII other than PR 1714 is applicable to GHGs.

11. Comment: EPA has recently solicited information on biogenic GHG emissions and whether or not a distinction should be made in the Tailoring Rule. Can the door be left open to include these provisions automatically in Regulation XVII (as opposed to undergoing new rulemaking) if EPA chooses to uphold the distinction between anthropogenic and biogenic emissions? This is particularly important with respect to Rule 3008.

    Response: The District is adopting Part 52.21 by reference (excluding sections not pertaining to GHG emissions), so if U.S. EPA makes amendments to 40 CFR Part 52.21 they would automatically be included in Rule 1714 – PSD for GHGs.

12. Comment: GHG emissions from bio-energy facilities should be excluded for purposes of evaluating PSD and Title V emission thresholds. The scientific and policy debate currently occurring over net carbon impact of biomass facilities largely stems from the wide variation in the types of feedstock utilized by such facilities. Urban green waste should be given a default assumption of carbon neutrality and the AQMD rulemaking should specifically incorporate this concept.

    Response: The District is adopting the federal requirements as promulgated. The federal decision to handle bio-energy facilities or biomass differently has not been made at this time.

13. Comment: Outside of relief from the Environmental Appeals Board process, is there any other benefit of having Regulation XVII approved into the SIP? Are there any downsides like losing potential flexibility that comes with a delegated program?

    Response: By adopting the federal requirements, the District becomes the permitting authority, instead of U.S. EPA. This reduces permit review time and improves communication. The commentor is correct that by approving these rules into the SIP the appeals to the Environmental Appeals Board would be avoided.

14. Comment: What options are available to the AQMD to apply the GHG thresholds under EPA's Tailoring Rule to PSD permits? What are the benefits and drawbacks of obtaining full "SIP" approval versus EPA "Delegation"? If the District does not seek a SIP approved PSD program for GHGs, how would that affect PSD permitting for other pollutant.

    Response: If the District does not adopt the federal requirements, permitting reverts to the U.S. EPA and the District may be subject to a SIP call or may apply to administer the U.S. EPA program under a delegation of authority from U.S. EPA. (Please also see response to comment # 13). The decision to incorporate GHGs into Regulation XVII should not impact PSD permitting for criteria pollutants.

15. Comment: Will EPA changes in the referenced CFR section automatically become effective, or will the changes require formal AQMD Board adoption and then EPA approval? Are there other issues associated with SIP approval?

    Response: If the Board approves PR 1714 as proposed, the rule adopts the federal requirements by reference and thus subsequent changes will be implemented.

BACT and LAER

16. Comment: Current District PSD is more stringent than federal requirements with a 1 lb threshold and LAER in place of BACT. Will this impact GHG requirements?

    Response: No, the District's LAER requirement for criteria pollutants will not impact requirements for GHG BACT which will follow the federal definition of BACT and include consideration of cost and energy.

17. Comment: Regulation XVII will now deal with two different BACTs, one being California BACT or LAER, for criteria pollutants, while the other will be

traditional federal BACT for GHGs. This distinction should be made clear in the staff report.

Response: PR 1714 clearly states that rule is for GHGs and the other Regulation XVII rules are for other air contaminants. By adopting GHG provisions by referencing the Code of Federal Regulation, that definition of BACT is incorporated in PR 1714 for GHGs, while BACT is defined for other air contaminants in Rule 1702 – Definitions.

18. Comment: Please describe the difference between BACT and LAER.

    Response: Under federal NSR for attainment and non-attainment air contaminants, Federal BACT or best available control technology generally applies to attainment pollutants and includes the consideration of such factors as energy and cost. LAER or lowest achievable emission rate generally applies to non-attainment air contaminants and is more stringent than BACT, and generally does not consider cost for emission limits that are achieved in practice.

19. Comment: How will federal BACT be determined?

    Response: The District will follow federal guidelines on BACT for GHGs. There is a Climate Change Work Group currently developing recommendations to U.S. EPA regarding guidance on GHG BACT. Staff will closely follow this committee's actions.

20. Comment: Are there any federal BACT requirements for GHGs?

    Response: Currently, no. Please see response to comment # 19. Staff will follow this process and conduct working groups or consultation meeting to brief stakeholders, as appropriate.

21. Comment: With no BACT, LAER, or other method of GHG emission limitation or means of reduction, inclusion of GHGs in a Title V permit might mean virtually nothing except some kind of political statement

    Response: After January 2, 2011, Title V permits may include BACT for GHGs, if applicable, under PSD actions, and may have PTE limitations to keep a facility out of PSD.

22. Comment: We understand that EPA may propose to use a "Top Down" BACT analysis, as currently required in the EPA-District PSD delegation agreement. What will be the role of energy efficiency in the new federal BACT for GHG and how will it be determined? Will a "Top Down" BACT analysis be used to ensure cost-effectiveness and technical feasibility including the assurance that control technologies have been demonstrated in practice are properly evaluated?

Response: The U.S. EPA is currently developing guidelines for BACT determination for GHG. Energy efficiency is one of the topics being considered. (Please see response to comment # 19.) For GHGs, staff has not altered the federal definition of BACT which currently considers cost and technical feasibility.

23. Comment: Traditional federal BACT for GHGs might focus on GHG reductions only and not be sensitive to the possibility of tension between criteria pollutants and GHGs. An example would be tightening up on boiler NO_X emissions which has the effect of lowering boiler efficiency (increasing CO_2) if a combustion modification route is chosen. This is the reason the SCAQMD Board adopted the policy that if a health-based, criteria pollutant measure conflicts with GHG goals, the health-based standard will always trump the latter.

    Response: Both the District and U.S. EPA are aware of this potential conflict and steps will be taken to minimize any impacts.

24. Comments: We have a concern regarding BACT which flows from discussions at the CAAAC BACT subgroup meetings where it was suggested that BACT determinations include a review of an *entire* facility, not just the subject permit unit, to determine efficiency improvements, energy conservation measures, etc. Please state clearly in the staff report, as staff stated at the recent workshop, that the BACT analysis will focus on the permit unit in question only and not the associated facility. Also clarify in the staff report and with EPA that any EPA BACT determinations will be filtered by the SCAQMD to make sure that they are consistent with the Board's policy paraphrased above.

    Response: Federal BACT, as applied in PSD permits, is a case-by-case evaluation based on the new or modified permit unit(s) under consideration. There is a national clearing house for federal BACT.

25. Comment: Will federal BACT include fuel switching?

    Response: The District will follow federal guidelines on BACT for GHGs and this has yet to be determined. Please see response to comments # 19 and # 20.

26. Comment: BACT should be solar energy. The Federal 30% investment tax credit expires in 2016 and along with the Federal Accelerated Cost Recovery System (depreciation in 5 years) makes solar renewable as BACT/LAER cost-effective on a life cycle cost effective basis.

    Response: Federal BACT has yet to be determined for GHGs. U.S. EPA has established a Climate Change Work Group to advise them on developing BACT guidelines for GHGs. The commentor has been given information on how to contact this entity regarding the determination of BACT and using solar energy as a solution.

27. Comment: The District should require LAER and solar conversion for new and retrofit technology.

    Response: The District is adopting the federal requirements for GHGs for PSD and Title V as promulgated in the Federal Register June 3, 2010. The regulation requires BACT assessment for GHG sources, not LAER, which is more stringent (please see response to comment # 18). The District staff believes LAER is not appropriate for GHG emissions in part because of the potential conflict with LAER requirements for criteria pollutants.

28. Comment: How do we (you) ensure that we are not locked into BACT as the means to reduce GHG emissions when down the road Congress may take a different tact or EPA may choose another course? We have concerns with issues of backsliding.

    Response: This is the current regulatory landscape. If requirements change in the future, SCAQMD would evaluate any new approaches.

Requirements

29. Comment: Please clarify your Option 1 and Option 2 in PAR 3001.

    Response: Staff work-shopped the rules with two options, and asked for comments. Option 1 would place only federal and SIP requirements in the Title V permit ("applicable requirements"), and Option 2 would also include "state only" requirements or those implemented by state or local statute, so that all GHG requirements are in one permit.

30. Comment: Option 2 represents more work on the permitting staff than is warranted at this time. The AB 32 Scoping Plan at one time identified 76 potential GHG – related control measures that could be developed by various state agencies. We recommend you revisit this issue in 2-3 years after the impacts of GHGs on PSD and Title V are fully appreciated.

    Response: Option 1 is currently reflected in the proposed amended rules.

31. Comment: Multiple comments were received expressing preference for Option 1. No comments were received in support of Option 2.

    Response: Please see response to comment # 30.

32. Comment: If the District is adopting the rules by reference and then sending them to the state and the state sending them to EPA, what is the projected timing and what happens if you fall short of the January 2, 2011 start date?

Response: The rule will go to the AQMD Governing Board in November and be submitted to the state right away. U.S. EPA should be able to respond quickly, as the proposals are straight forward. The District will enforce the adopted rules regardless of the status of federal approval or work out another arrangement with U. S. EPA to be able to issue permits until U.S, EPA approves the rules into the SIP.

33. Comment: If a source triggers PSD on the basis of GHGs, will that trigger an analysis for criteria pollutants?

    Response: Whether the facility triggers a criteria pollutant analysis when it triggers PSD for GHGs will depend on whether the facility exceeds the threshold for increase in criteria pollutants listed in Regulation XVII, not the entry threshold level of 100 tpy. The significant modification threshold for NO_x, for example is an increase of $\geq$40 tpy. Thus, criteria pollutant analysis may occur where the source is not "major" for that pollutant.

34. Comment: Will other PSD requirements, such as modeling, be required for GHGs?

    Response: The District does not envision implementing any additional requirements for GHG sources other than federal BACT and public notice. As explained in the staff report, many provisions of the PSD rule are inapplicable for GHGs.

35. Comment: The AQMD rulemaking should make clear that the only PSD requirement relevant in the context of GHGs is the BACT requirement.

    Response: Please see response to comment # 34

36. Comment: There are memos regarding PTE for limiting criteria pollutants, are they applicable to GHG emissions?

    Response: There is nothing official at this time, but the GHG thresholds are on the basis of PTE.

37. Comment: Basing requirements on PTE could bring in many facilities.

    Response: PAR 3008 allows a source to take a cap on emissions that will fall below the threshold triggers for inclusion in Title V.

38. Comment: Taking a limit (cap) that would trigger a permit action to include the limit and then the source would incur monitoring/enforcement limits on the open permit.

Response: If a source takes a cap that means it was previously subject to the regulation. There may be monitoring and recordkeeping requirements if a cap is taken.

39. Comment: The GWP number the District uses for methane is 21. I have seen CARB use 25, this is also used by the United Nations group in their second and third assessments, and James Hansen uses 33.

    Response: The GWP number the District uses in the rule (21) comes from the U.S. EPA and is found to be cited in PAR 3000 Table 1 as coming from the Federal Register, Volume 74, No. 209, October 31, 2009.

40. Comment: Is EPA going to open all Title V permits? If the District is considering opening permits with greater than 3-years renewal time, is that 3 years from January 2, July 1, or permit issuance date?

    Response: Beginning January 2nd, staff is required to reopen to add GHG "applicable requirements" to any Title V permit which has more than 3 years left if the life of the permit (since our Title V permits have a life of 5 years, which is usually counted from the date of issuance), based on the expiration date noted in each permit (usually 5 years from the date of issuance). At the Public Workshop staff pointed out that since the only federal requirement for existing GHG sources is the federal Mandatory Reporting Requirements and U.S. EPA has already declared that these are not considered "applicable" requirements, the District does not intend to reopen any Title V permits after January 2nd unless and until some future time when there are applicable requirements for existing GHG sources. However, PSD BACT requirements for GHGs will need to be included in a Title V permit, if applicable.

41. Comment: Where will GHG requirements be placed on the Title V permit?

    Response: This has yet to be determined, but it will generally apply to emission units or devices listed in sections H and D of Title V permits.

42. Comment: Will you re-open Title V permits to incorporate GHG requirements and would it be for the whole facility or only the affect piece of equipment?

    Response: Title V permits will only be revised or issued when PSD is triggered, unless and until U.S. EPA adopts further GHG "applicable requirements". The GHG requirements would be only for the equipment subject to PSD due to a modification, not the entire facility. Please see responses to comments # 24 and #40.

43. Comment: If a permit is currently in the pipeline, but is issued after January 1, 2011, would the new rules apply?

Response: Yes, if the permit is not issued until after January 1, 2011 (for Step 1) and June 30, 2011 (for Step 2), the implementation dates, the new applicable GHG provisions would apply.

44. Comment: PAR 3000 (b)(15)(vi) is not clear. Does it mean that any increase in GHG emissions would disqualify the facility from minor permit revision opportunities?

    Response: No. The language has been re-phrased and re-structured to clarify that only sources emitting greater than 75,000 tpy CO_2e would be disqualified from the minor permit revisions opportunity on the basis of GHG emissions.

45. Comment: PAR 3000 (b)(20) defines Potential to Emit and for GHGs there is no reliable information and data on different GHG emission factors prepared by different organizations. Based on definitions for Compliance Documents and De Minimis Significant Permit Revision, any facility has potential to emit GHG in the amounts exceeding the threshold numbers. Also, the reference to (b)(28) does not apply to GHGs.

    Response: GHG emissions are currently being quantified and reported. Staff does not envision the proposed amendments affecting many sources. Paragraph (b)(28) is a definition regarding coal-fired power plants. GHGs are emitted from such sources.

46. Comment: PAR 3000 (b)(29)(c) definition of "responsible official" should add "or a designee" in the case of a public agency.

    Response: Comment noted. This is existing rule language, so no change was made.

47. Comment: Please explain whether the requirements in PAR 3001 (c)(8) and (9) are applicable to facilities with existing Title V permits or to facilities that would apply for such permits. Who, and based on what data, determines whether the facility should be subject to GHGs triggering Title V? Will the facility be notified by AQMD or should it apply to such permit voluntarily?

    Response: Applicants are responsible to obtain the appropriate permits. PAR 3001 applies to both new and existing faculties.

48. Comment: What would a deviation report be? Would a deviation report be triggered for state requirements if they are listed on a Title V permit?

    Response: Rule 3004 (a)(5) requires the operator to report any non-compliance situation. After considering input, staff is proposing that for GHGs, only "applicable" requirements (federal only) would be listed on Title V permits, so violations of state GHG requirements would not trigger a deviation report.

49. Comment: The uniform emission limitation of 100,000 tpy CO_2e in PAR 3008(d)(1)(D) for emission limitations does not make sense.

    Response: The level has been revised to < 50,000 tpy CO_2e for GHG emissions for the emissions limitation threshold.

50. Comment: The District should do more than the minimum federal requirements.

    Response: The District's proposal to implement the federal requirements for such a new area is a good place to start. Because federal BACT has not yet been determined it would be difficult to go beyond the federal requirements.

51. Comment: Delaying small sources until April 2016 is not acceptable.

    Response: This decision was made by U.S. EPA and the District staff believes this decision is reasonable given the workload associated with lower thresholds compared to the benefits.

52. Comment: The lower level of GHGs that require PSD BACT analysis should be 100 tpy.

    Response: U.S. EPA determined that lowering the GHG threshold to such a level would greatly increase the number of sources requiring permits, impose undue costs on small sources, overwhelm the resources of permitting authorities, and severely impair the functioning to the PSD and Title V programs. For example, based on PTE, an emergency diesel generator, of which there are approximately 9,000 in the Basin, could be a 100 tpy GHG emission source. The U.S. EPA has estimated that at the 100 ton threshold, there would be 6 million new Title V permits, nationwide, of which the AQMD could have to implement 300,000 new permits.

53. Comment: The District is required to do an AQMP every 3 years. The District should have a solar conversion plan by the end of the year.

    Response: The District is in the process of updating the AQMP due to be released in 2011/2012. A solar conversion plan is beyond the scope of this project, but this comment will be referred to the planning staff.

54. Comment: The proposal to regulate GHG emissions under existing PSD and Title V programs is highly controversial and uncertain. The federal proposal is the subject of pending litigation, and the possibility of Congressional intervention in the matter is not at all remote. If the AQMD moves forward with rulemaking in light of the uncertainty, it must make accommodation for future changes to the regulatory landscape. If approved, the proposed revisions to Regulations XVII

and XXX should be automatically and immediately suspended in the event they are no longer federally mandated.

Response: The litigation of the federal actions is speculative and as such the District will move forward with the proposal to adopt the federal requirements as the required implementation date for Step 1 is January 2, 2011. If there is a change, staff will address the issue when it arises.

55. Comment: We understand the severe time constrains you are meeting. Still, the one week time for digesting the material and commenting on such a serious matter is not enough. If you cannot extend the comment period, perhaps you could divide the proposed rules into those subject to January 2, 2011 compliance date and others.

Response: The draft rules and staff report for Regulation XXX were available one week before the Public Workshop. Staff realizes the comment period after the PWS was limited and is one of the reasons why staff has scheduled a Public Consultation Meeting for October 12, 2010. The idea of splitting amendments in not practical since the rule development process takes at least six months and this is the time period between the compliance dates.

CEQA and Socio-economic

56. Comment: It is assumed that the federal government did an NEPA analysis and socio-economic analysis since the District is not.

Response: The District is adopting federal requirements and thus will publish an NOE determining them to be exempt from CEQA requirements pursuant to State CEQA Guidelines §15268 – Ministerial Projects. NEPA does not apply to actions under the Clean Air Act. U.S. EPA conducted a regulatory impact analysis and determined that absent the tailoring rule, small sources would be impacted and that by raising the threshold this rule would result in a cost savings.

57. Comment: The District should do a CEQA document with a socioeconomic impact analysis or a separate socioeconomic analysis document.

Response: The District performs CEQA and socioeconomic analyses separately. The CEQA document to be prepared after the Public Hearing will be a Notice of Exemption. Please see response to comment # 56.

PARegs XXVII and XXX represent an adoption of the federal Tailoring Rule for PSD by reference and Title V by incorporation of federal requirements in the Regulation XXX rules. Since the proposed amendments do not impose requirements beyond the federal rule, Title V and PSD permit holders are not expected to face additional costs or other socioeconomic impacts as a result of the proposed amendments. As such, a socioeconomic assessment is not required.

The following comments were received following the close of comments (September 17, 2010) for the public workshop held September 9, 2010.

58. Comment: The proposed language in PAR 3001 (c)(9) states such facilities "shall apply for a Title V permit within 180 days after July 1, 2011, unless a Title V permit has already been applied for and all requirements that are applicable requirements (as defined in Rule 3000 (b)(4)) shall be included in the permit." The proposed language that discusses how GHG requirements shall be included in the permit should be moved to Rule 3004.

    Response: The language the commentor is referring to has been removed.

59. Comment: The proposed amendments to Rule 3000 continue to rely on the term "regulatory requirements" set forth in existing paragraph (b)(25); however this definition is ambiguous. The Title V permitting scheme is intended to ensure compliance with all "applicable requirements".

    Response: The language pertaining to GHGs specifically calls out "applicable requirements", in PAR 3001 (c)(8) and PAR 3002 (a)(2) and (a)(3). Also, please see response to comment # 30.