SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

For Agenda of **August 23, 2012**

To: Board of Directors
Sacramento Metropolitan Air Quality Management District

From: Larry Greene
Executive Director/Air Pollution Control Officer

Subject: Public Hearing to Adopt Resolutions Approving Amendments to:
- Rule 202, New Source Review; and
- Rule 214, Federal New Source Review; and

Adopt Resolution Approving:
- New Rule 217, Public Notice Requirements for Permits

Recommendations

1. Conduct Public Hearing;
2. Determine that the amendments to Rule 202 and Rule 214, and the adoption of new Rule 217 are exempt from the California Environmental Quality Act (CEQA); and
3. Adopt the attached resolutions approving Rule 202, Rule 214 and Rule 217.

Executive Summary

These rules establish standards and procedures for issuing permits to new and modifying businesses that emit air pollutants. All permits are processed using Rule 202 permitting requirements that meet both state and federal laws. Rule 214 contains only federal requirements that apply to the largest emitters. Federal requirements are generally less stringent than state requirements. However, the Clean Air Act authorizes direct enforcement of federally required permits by EPA and through citizen suits, and requires EPA approval of Rule 214.

After reviewing our recent rule amendments[1], EPA published a limited disapproval of Rule 214, effective August 2011, and identified[2] specific issues in their Technical Support Document that must be addressed before they can approve Rule 214. New Rule 217 will satisfy many of EPA's concerns and contains public noticing provisions extracted from existing Rule 202. Revisions to Rules 202 and 214 are also needed to comply with their remaining concerns.

EPA's disapproval triggered a sanctions clock requiring the District to amend the rule and obtain EPA approval of the amendments within 18 months or large new permitting actions will require

[1] SMAQMD, Agenda Item #15: Conduct a Public Hearing and Adopt Resolutions Approving Amendments to: Rule 202, New Source Review; and Rule 215, Agricultural Permit Requirements and New Agricultural Permit Review, October 28, 2010

[2] EPA's limited disapproval of Rule 214 "Revisions to the California State Implementation Plan, Sacramento Metropolitan Air Quality Management District", Federal Register 76:139 (July 20, 2011) p. 43183

additional mitigating emissions reductions[3]. If EPA approval is not received within 24 months, EPA may assume federal permitting authority from the District and withhold federal transportation funds. The 18-month deadline is February 19, 2013, and the 24-month deadline is August 19, 2013 but the District must submit the rules well in advance of those dates to allow EPA time to review and approve them.

The most notable changes required by EPA's action are:

1. Add noticing procedures to provide the public an opportunity to comment on District staff determinations that minor source permits[4] above specified emissions thresholds will not cause or contribute to air quality problems;
2. Add procedures to prevent large emissions increases that will cause or contribute to visibility problems in Class 1 areas (national parks and wilderness areas) and allow public input to those determinations;
3. Require re-evaluation of some sources requesting relaxation of permit conditions that avoided initial application of federal permit requirements; and
4. Specify the significance threshold level for the PM2.5 precursor, nitrogen oxides.

Staff has discussed the proposed rule changes with EPA staff. EPA staff has indicated that the proposed rules, with the response to EPA's comments, will satisfy federal requirements and will be able to be fully approved into the State Implementation Plan (SIP). However, until EPA completes its full formal review process, we will not be certain that the changes are adequate.

None of the requirements affect existing sources unless they modify their operations. Many, if not all, of the requirements already have been implemented for permits issued before these rule amendments because our rules already require sources to comply with federal requirements. These recommended rule changes simply explicitly state these requirements. No emission standards are being changed.

Attachments

The following table identifies the attachments to this memo.

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[3] For example, an emissions reduction of 1.3 tons for every ton of ozone precursor emissions increase is currently required. The sanction increases that offset ratio to 2 tons of emissions reduction for every ton of ozone precursor emission. This is referred to as an emissions offset requirement.

[4] Minor source permits is the term used to describe permits below federal permitting thresholds.

Background

The District is currently designated as a nonattainment area for state and federal ozone, PM10[5] and PM2.5[6] standards. Adverse health effects are linked to ozone and particulate matter. Ground level ozone is a secondary pollutant formed from photochemical reactions of NOx and volatile organic compounds (VOCs) in the presence of sunlight. Ozone is a strong irritant that adversely affects human health and damages crops and other environmental resources. As documented by the U.S. Environmental Protection Agency (EPA) in the most recent Criteria Document for ozone[7], both short-term and long-term exposure to ozone can irritate and damage the human respiratory system, resulting in:

- decreased lung function;
- development and aggravation of asthma;
- increased risk of cardiovascular problems such as heart attacks and strokes;
- increased hospitalizations and emergency room visits; and
- premature deaths.

According to the EPA, health studies have linked exposure to particulate matter, especially fine particles, to several significant health problems, including:

- increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing;
- decreased lung function;
- aggravated asthma;
- development of chronic bronchitis;
- irregular heartbeat;
- nonfatal heart attacks; and
- premature death in people with heart or lung disease.

Exposure to PM pollution can cause coughing, wheezing, and decreased lung function even in otherwise healthy children and adults. EPA estimates that thousands of elderly people die prematurely each year from exposure to fine particles. In addition, a study[8] of the correlation between PM2.5 concentrations and hospital admission rates concluded that short-term exposure to PM2.5 increases the risk of hospitalization for cardiovascular and respiratory diseases.

The August 19, 2011 effective date of EPA's final limited disapproval started a sanctions clock[9] triggering penalties unless EPA approves subsequent revisions that correct the identified rule deficiencies within 18 months of the effective date (by February 19, 2013). An emission offset sanction, increasing the emission offset ratio to 2:1, will occur first[10]. The second sanction, a

[5] Particulate matter with an aerodynamic diameter of 10 microns or less, Code of Federal Regulations, Title 40, Section 50.6.
[6] Particulate matter with an aerodynamic diameter of 2.5 microns or less, Code of Federal Regulations, Title 40, Section 50.7.
[7] U.S. Environmental Protection Agency. Air Quality Criteria for Ozone and Related Photochemical Oxidants. 3 vols. February 2006.
[8] Dominici et. al. "Fine Particulate Air Pollution and Hospital Admission for Cardiovascular and Respiratory Diseases." The Journal of the American Medical Association. 295.10 (2006): 1127-1134.
[9] Under authority of CAA Section 110(k)(3), codified at 42 U.S.C. 7410(k)(3),and 40 CFR 52.31.
[10] For example, an emissions reduction of 1.3 tons for every ton ozone precursor emissions increase is currently required. The sanction increases that offset ratio to 2 tons of emissions reduction for every

highway fund sanction, is applied 24 months after the effective date (August 19, 2013). Sacramento County would lose funding for transportation projects if the funds have not been obligated by the Federal Highway Administration by the date the highway sanctions are imposed. Projects that have already received approval to proceed and had funds obligated may proceed. In addition, EPA must adopt federal permitting requirements and may assume federal permitting authority from the District unless the rules are approved by August 19, 2013.

Summary of Proposed Rule Amendments

The changes address EPA comments in the Technical Support Document[11] that accompanied the limited disapproval of Rule 214. The proposed changes ensure that the District retains local permitting authority and avoids sanctions (higher emission offset requirements for major sources and withholding of federal highway funds) by meeting requirements of federal laws and regulations.

The proposed Rules 214 and 217, if approved by the Board and EPA, will stop the sanction clocks and enable the District to retain local permitting authority. Although Rule 202 will not be submitted for EPA approval, amendments are proposed to Rule 202 to include the revised federal requirements and be consistent with Rule 214.

The major proposed changes to the rules are summarized below. Please refer to Appendix A of the Staff Report for a more detailed description of the changes.

Rules 202 and 214:

These proposed rule changes are being made to both Rule 202 and 214.

- Amend the definition of major stationary source to include fugitive emissions for the 28 source categories required by federal requirements.
- Add existing federal requirements for the protection of visibility of Class I areas for sources (including procedures for visibility analysis, additional public notification, and permit denial). Visibility requirements are only required for very large emissions increases - major sources or major modifications that may impact a Class I area. The Class I areas of concern to sources in Sacramento County are Desolation Wilderness in El Dorado County and Mokelumne Wilderness in Alpine, Amador, and Calaveras County. These Class I areas are approximately 75 kilometers from the eastern border of Sacramento County. EPA guidelines indicate that sources within 100 kilometers of a Class I area must be examined for visibility impacts, or if the source would be located further than 100 km from a Class I area but other factors (such as the proposed source's size) suggest potential visibility impacts. The District has two major sources within 100 km of a Class I area.
- Add a nitrogen oxides significance threshold for determining whether a project is a major modification for PM2.5. Major modifications must provide emissions offsets. Nitrogen oxides (NOx) contribute to both PM2.5 and ozone levels. A NOx significance threshold for PM2.5 was not included previously because it is slightly higher than the NOx significance

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[11] U.S. Environmental Protection Agency Region IX, Air Division. Technical Support Document for EPA's Notice of Proposed Rulemaking for the California State Implementation Plan, Sacramento Metropolitan Air Quality Management District. By Laura Yannayon. May 6, 2011.

threshold for ozone. Nitrogen oxide offsets can be used to satisfy both ozone and PM2.5 requirements. The rule has been revised to ensure that when emissions exceed the higher PM2.5 significance threshold, emissions offsets come from the smaller PM2.5 nonattainment area[12] as required[13].

- Remove the option to meet offset requirements with interpollutant offset trading[14] for PM2.5 and its precursors because EPA policy no longer allows it[15].
- Add a federal requirement[16] that guards against "sham" permits. "Sham" is a term used to describe a permit that includes conditions solely to limit emissions to remain below thresholds that trigger federal permit requirements, but then later the permit holder requests removal of those conditions. If that occurs, the source must be subject to permitting requirements as though construction of the source has not yet commenced. EPA has issued guidance documents interpreting this requirement[17, 18].

Rule 214:

One change that only affects Rule 214 expands the exemption in Rule 214 that would apply to PM10 after Sacramento County is designated as attainment to apply to any pollutant for which Sacramento County is designated attainment or unclassified for a federal National Ambient Air Quality Standard (NAAQS). Rule 203 – Prevention of Significant Deterioration governs permitting of large facilities emitting attainment pollutants. The change is not included in Rule 202 because the state permitting requirements are not tied to attainment designations.

Rule 217:

The public noticing procedures currently in Rule 202 and Rule 214 are being moved to new Rule 217 because they must be approved by EPA. There are a few important changes and additions described below.

- Add notification procedures relevant to new major sources and major modifications that may affect visibility of any Class I area (national parks, wilderness areas, etc.).

[12] The ozone nonattainment area covers a larger geographic area than the PM2.5 nonattainment area. The PM2.5 nonattainment area does not include the following parts of Sacramento's ozone nonattainment area: the southern part of Sutter County, a western part of Yolo County, and the eastern part of Placer and El Dorado Counties.

[13] "Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$)", Federal Register 73:96 (May 16, 2008) p. 28321.

[14] Interpollutant trading occurs when very large emission increases require offsetting emissions reductions and the source elects to mitigate one pollutant with another. This has been allowed for ozone precursors, where volatile organic compound reductions were more plentiful than the other ozone precursor, nitrogen oxides. Typically the ratios are established on a case-by-case basis to consider the region-specific air quality conditions, but EPA's PM2.5 implementation rule had specified presumptive PM2.5 ratios that were subsequently petition for reconsideration.

[15] Interpollutant trading for PM2.5 could be allowed in the future if an offset ratio is established in either a PM2.5 attainment demonstration or maintenance plan and approved by EPA.

[16] 40 CFR 51.165(a)(5)(ii). EPA identified this requirement as a deficiency in U.S. Environmental Protection Agency Region IX, Air Division. *Technical Support Document for EPA's Notice of Proposed Rulemaking for the California State Implementation Plan, Sacramento Metropolitan Air Quality Management District.* By Laura Yannayon. May 6, 2011. Page 11.

[17] Hunt, Terrell E., & Setiz, John S. "Guidance on Limiting Potential To Emit in New Source Permitting." Memo to Addressees. Environmental Protection Agency, Washington, D.C. June 13, 1989.

[18] U.S. EPA, "New Source Review Workshop Manual, Prevention of Significant Deterioration and Nonattainment Area Permitting." Appendix C, Page c.6. October 1990.

- Change publication of final action notification from newspaper to District website. This change decreases District costs and workload slightly while maintaining state and federal requirements to notify the public.
- Lower the threshold for the public notification exemption for SOx to 9,200 pounds per quarter. This change is required to meet the Protect California Air Act of 2003 (SB288)[19]. SB288 was adopted to insure that any revisions required by federal law would not weaken the permitting requirements in effect prior to the amendment.

Cost Impacts

None of the requirements affect existing sources unless they modify their operations. The impact of the proposed rule amendments is not expected to be a burden to businesses. To obtain a permit with the District, Rule 202 already requires compliance with state law[20] which in turn already requires the District to implement all provisions of state and federal rules and regulations when permitting sources[21]. Therefore, prior to these amendments, sources were subject to federal requirements. These recommended rule changes simply explicitly incorporate the requirements.

There is no impact from the public noticing requirements for minor sources in Rule 217 because these requirements are currently in Rule 202, with one exception, the lowering of the SOx public notification threshold. Staff does not believe that this change will have an impact on business because prior permitting history indicates that sources exceeding the new SOx notification threshold would have been noticed anyways because they also exceed the public notification threshold for NOx (which has not been changed). Both NOx and SOx emissions are formed when burning fuels.

In light of the above, the proposed rule changes are not expected to have a significant cost impact.

Emission Impacts

There is no change to the emission standards in the proposed amendments.

District Impacts

There is no cost impact expected for the District. The adoption and subsequent SIP approval of Rule 217 simply makes the existing public noticing procedures federally enforceable. Publishing final actions on the District website will decrease costs and workload slightly. No additional staff time is needed.

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[19] California Health and Safety Code Sections 42500 through 42507.
[20] California Health and Safety Code Sections 40001(a) and 42300(a), and District Rule 201 Section 303.1.
[21] Rule 202, Section 307.

Environmental Review and Compliance

Staff finds that the adoption of the proposed rules is not subject to the California Environmental Quality Act because it is an activity that will not result in a direct or reasonably foreseeable indirect physical change in the environment. (Section 15060(c)(2), State CEQA Guidelines).

Public Outreach and Comments

In addition to the notice for today's hearing, Staff conducted a public workshop on July 10, 2012. The noticing for this workshop included:

- A workshop notice on the District website,
- Notices mailed to all permitted sources; and
- Notices mailed to those who have requested rulemaking notices.

A notice for the August 23, 2012 public hearing was published in the Sacramento Bee on July 23, 2012. The notice was also sent to all permitted sources, public workshop attendees, and anyone requesting rulemaking notices.

No comments were made at the workshop. EPA Region 9 staff and Jeff Adkins, Sierra Research, provided written comments. Written comments are included in Attachment D.

EPA requested a justification for the minor source permit public notification thresholds. Staff's analysis[22] of permitting history shows that the projects not subject to noticing account for less than 5% of the total District emissions inventory for all pollutants except for SO_2. The SO_2 noticing thresholds are appropriate, in spite of the relatively higher percentage of non-noticed SO_2 permits, because Sacramento meets SO_2 health standards. Sacramento County, in fact all of California, has been in attainment for the federal SO_2 health standards since the late 1980s. The analysis also shows that the amount of emissions from sources subject to public noticing requirements account for approximately 40% of the VOC, 62% of the NOx, 43% of the SOx, 39% of the CO, 40% or the PM10, and 29% of the PM2.5 of the total District permitted emissions. Therefore, it is reasonable to conclude that the thresholds provide an appropriate amount of public input, and it is not necessary to add a public notice requirement to smaller emission source permit actions. A similar threshold analysis has been performed elsewhere and EPA has proposed to approve it[23]. Therefore, Staff expects our justification to receive EPA approval.

Staff made many of the rule language changes EPA requested. Staff has discussed each EPA comment, our proposed rule changes, and public noticing threshold justification in detail with EPA staff. EPA staff indicated that the proposed rule language, with our proposed response to EPA comments, will be able to be fully approved by EPA for inclusion into the SIP. However, until EPA completes its full formal review process, we will not be certain that the changes are adequate. That is why submitting the revised NSR rules to EPA well in advance of the deadline is critical.

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[22] For details about the analysis see Appendix C of the Staff report (Attachment C).

[23] "Limited Approval and Disapproval of Air Quality Implementation Plans; Nevada; Clark County; Stationary Source Permits", Federal Register 77:142 (July 24, 2012) p. 43206.

Mr. Adkins' comment pertains to Section 102 of Rules 202 and 214, which includes the federal requirement[24] that guards against "sham" permits, i.e., permits with conditions that limit emissions to remain below thresholds that trigger federal permit requirements, but then later request removal of those conditions. Mr. Adkins' concern is that a request for removal of permit conditions may be "legitimate," not simply to remove the *artificial* condition that avoided federal permitting requirements. We share that concern, however, the rule as currently drafted allows legitimate permit changes. EPA has adopted detailed guidance[25] which defines procedures for identifying "sham" permits which staff will follow. Each permit change request must consider its unique circumstances in making this determination.

Mr. Adkins requested that we add the words shown in bold and underlined print below. The requested rule language change would not simply authorize legitimate permit condition changes, but would redefine the terms "major source" and "major modification" for purposes of identifying a sham permit. The requested language refers to the current federal definitions rather than the definitions in Rules 202 and 214. We cannot reference the current federal definition because that would violate the requirements of state law, specifically the Protect California Air Act of 2003 (SB 288)[26]. SB 288 was adopted to ensure that any revisions required by federal law would not weaken prior permitting requirements. SB288 was in reaction to 2002 relaxation in the federal permitting requirements, including the definitions of major source and major modification. The District's definitions satisfied both state and federal requirements. Making the requested change would jeopardize EPA approval of Rule 214. Additionally, the requested change would delay Board approval of these rules because it would be a significant change made after the rules were publicly noticed[27].

Staff proposes to omit the addition of the requested word "federal," and rather than citing federal regulations, cite the appropriate District definitions. The language that we propose to omit or modify is shown in strikeout format. Staff's modified language is shown with a double underline format. The revised proposed language for Rules 202 and 214 are included in Attachment B.

> *If any source or modification becomes a* ~~***federal***~~ ***stationary*** *source or* ~~***federal***~~ *major modification* ~~***as defined in 40 CFR Section 51.165(a)(1)(iv) and (v)***~~* Sections 227 and 228 *solely by virtue of a relaxation in any federally enforceable limitation which was established after August 7, 1980, on a capacity of the source or modification to emit a federal nonattainment pollutant or its precursor such as a restriction on hours of operation, then the requirements of this rule shall apply to such a source or modification as though construction had not yet commenced on the source or modification.*

These additional proposed changes to Rules 202 and 214 were made after posting of the notice for the public hearing. Although state law requires re-noticing of substantive changes, these

[24] EPA identified this requirement as a deficiency in U.S. Environmental Protection Agency Region IX, Air Division. *Technical Support Document for EPA's Notice of Proposed Rulemaking for the California State Implementation Plan, Sacramento Metropolitan Air Quality Management District.* By Laura Yannayon. May 6, 2011. Page 11.

[25] Hunt, Terrell E., & Seitz, John S. "Guidance on Limiting Potential To Emit in New Source Permitting." Memo to Addressees. Environmental Protection Agency, Washington, D.C. June 13, 1989.

[26] California Health and Safety Code Sections 42500 through 42507

[27] California Health and Safety Code Section 40726 states, "a district board may adopt, amend, or repeal a [proposed] rule or regulation, unless the board makes changes in the text originally made available to the public that are so substantial as to significantly affect the meaning of the proposed rule or regulation."

changes do not require an additional opportunity for public comment because they only make the terms more specific by adding references to the definitions, and therefore do not constitute a substantive change.

Conclusion

The proposed amendments are necessary to comply with the federal Clean Air Act and address deficiencies identified in EPA's limited disapproval of Rule 214. The amendments will allow EPA to fully approve Rule 214 and Rule 217 and thereby avoid sanctions and loss of District authority to issue federally required permits. Staff recommends that the Board determine that the proposed rules are exempt from CEQA and approve the attached resolutions adopting Rule 217 and the proposed amendments to Rule 202 and Rule 214.

Respectfully submitted,

Larry Greene
Executive Director/Air Pollution Control Officer

Approved as to form:

Kathrine Pittard
District Counsel

Attachments