

# SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

## DRAFT STAFF REPORT

### Proposed Amendments to Rule 2201 (New and Modified Stationary Source Review Rule)

July 26, 2016

Prepared by: Robert Gilles, Air Quality Engineer

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#### I. SUMMARY

The San Joaquin Valley Air Pollution Control District (District) is proposing to amend District Rule 2201 (New and Modified Stationary Source Review (NSR) Rule) to respond to comments received from the state Air Resources Board (ARB) and the US Environmental Protection Agency (EPA) on the District's February 18, 2016, amendments.

The District adopted amendments to Rule 2201 on the February 18, 2016, as a requirement for the District's reclassification from moderate to serious nonattainment for the 1997 and 2006 National Ambient Air Quality Standards (NAAQS, or standards) for particulate matter with an aerodynamic diameter of less than 2.5 microns (PM<sub>2.5</sub>). In addition to the requirements for the reclassification, at that time the District took the opportunity to amend the rule in response to a comment from EPA about the definition of "Routine Replacement". The adopted amendments included replacing the name "Routine Replacement" with "Replacement Emissions Unit" and removing the term "routine" from the definition in section 3.35.

After adoption of the February 18, 2016, amendments by the District's Governing Board, the ARB reviewed the amendments further and commented that removing "routine" from the Replacement Emissions Unit definition could lead to more replacements qualifying for the BACT exemption in section 4.2.6. ARB believes that this could be a relaxation of the District's NSR Rule that would not be allowed by California Health and Safety Code sections 42500 through 42507 – *Protect California Air Act of 2003, Senate Bill 288 (SB 288)*. ARB has therefore determined that the rule cannot be forwarded to EPA for inclusion into the State Implementation Plan (SIP).

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In response to ARB's concern, the District is proposing to amend section 3.35 by reintroducing the term "routine" and changing the name from "Replacement Emissions Unit" to "Routine Replacement Emissions Unit".

The proposed amendments to section 3.35 do not change the District's longstanding interpretation and implementation, are consistent with the current SIP-approved Rule 2201 (amended April 21, 2011), and satisfy both the original comment from EPA and the recent comment from ARB.

These proposed rule amendments, and the other minor changes discussed below, are considered supplemental to the amendments that were originally adopted by the District's Governing Board on February 18, 2016. As such, the Final Staff Report with appendices for the February 18, 2016, amendments is included as Appendix A of this staff report.

## **II. DESCRIPTION OF RULE 2201 (NEW AND MODIFIED STATIONARY SOURCE REVIEW RULE)**

The District's NSR Rule provides a regulatory mechanism for allowing continued economic growth while minimizing the amount of emission increases due to this growth. District Rule 2201 applies to all new stationary sources and all modifications to existing stationary sources that are subject to District permit requirements. For smaller sources of emissions, there are certain permitting exemptions identified in District Rule 2201 and District Rule 2020 (Exemptions).

The District's NSR program is designed to meet both the state and federal NSR requirements for nonattainment areas and applies to new and modified stationary sources that emit nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), particulate matter with an aerodynamic diameter of less than 10 microns (PM<sub>10</sub>), PM<sub>2.5</sub>, sulfur oxides (SO<sub>x</sub>), CO, and other pollutants subject to District permitting requirements pursuant to District Rule 2010 (Permits Required).

Key features of Rule 2201 include:

- Best Available Control Technology (BACT): mandates emission controls to minimize emission increases above de minimis values;
- Emission offsets: requires emissions above specified offset threshold levels to be mitigated with either concurrent reductions or past reductions which have been banked as emission reduction credits (ERC);
- Public notification: a 30 or 45 day notice period prior to issuance of an Authority to Construct (ATC) to garner comments on projects that result in emissions above specified levels;

- Required elements for Authority to Construct, Permit to Operate and administrative requirements for the processing of NSR applications.

### **III. BACKGROUND AND DISCUSSION OF PROPOSED RULE AMENDMENTS**

#### **A. Routine Replacement Emissions Unit**

District Rule 2201 has long defined a Routine Replacement and contained requirements that were applicable only to routine replacement actions. The specific rule items that are applicable only to routine replacement actions include exemption from Best Available Control Technology (BACT) requirements and an Application Shield for certain routine replacement actions.

The February 18, 2016, amendments to the Rule 2201 modified section 3.35 by replacing the name “Routine Replacement” with “Replacement Emissions Unit” and removing the term “routine” from the definition. These changes were made in response to an EPA request to change the Routine Replacement definition because “routine replacement” has a different definition under the federal Clean Air Act (CAA). Even though the changes did not cause a change to the District’s interpretation or implementation of the Routine Replacement provisions in Rule 2201, the District took the opportunity to change its NSR rule in response to EPA’s request.

After adoption of the amended Rule 2201, ARB further reviewed the amended rule prior to forwarding the rule to EPA for inclusion in the SIP. As a result, ARB raised concern that removing the term “routine” could allow more units to be exempt from BACT requirements. This could cause a violation of SB 288 which mandates that districts’ NSR rules cannot be made less stringent, in a variety of specified areas, than the rules that existed on December 30, 2002. In light of this concern, ARB could not submit the adopted rule amendments to EPA for inclusion in the SIP.

The District is proposing to amend section 3.35 to rename “Replacement Emissions Unit” as “Routine Replacement Emissions Unit” and also to reintroduce the term “routine” within the definition of Routine Replacement Emissions Unit.

While this wording was of significant concern to ARB, the amendments now proposed do not change the District’s interpretation or actual implementation of either the April 21, 2011, or February 18, 2016, versions of the rule.

**B. Other Minor Changes**

**1. Temporary Replacement Emissions Unit (TREU) Definition**

EPA, upon further review of the recently adopted amendments, requested the District add language to the rule to ensure a TREU may only replace an existing emissions unit with a valid District Permit to Operate (PTO). District Rule 2201 has long included a definition and requirements for a Temporary Replacement Emissions Unit (TREU). With the February 18, 2016, amendments to the District's NSR Rule, the District amended section 8 to include certain TREUs in the Application Shield provisions of Rule 2201.

The District is proposing to amend section 3.41 of Rule 2201 to include language consistent with the current definition for Routine Replacement Emissions Unit. The additional language will ensure that the existing unit being replaced must have a valid District PTO.

This proposed amendment does not cause a change to the District's longstanding interpretation of the applicability of the TREU provisions and does not cause a change to the District's implementation of any requirements for a TREU.

**2. Federal Major Modification Definition**

EPA also requested the addition of rule language to clarify that "netting out" is not allowed when determining the applicability of Federal Major Modification requirements for VOC and NO<sub>x</sub> emissions in extreme ozone nonattainment areas.

The Federal Major Modification requirements are included in Rule 2201 to address federal NSR requirements for pollutants for which the District is classified as nonattainment of the corresponding NAAQS. For determining if a proposed project modification triggers Federal Major Modification requirements, section 3.18 of Rule 2201 refers to paragraphs 40 CFR part 51.165(a)(2)(ii)(B) through (D), and (F) of the federal CAA. These paragraphs provide that a modification is only a Federal Major Modification if the project causes a significant emissions increase and a significant net emissions increase.

For the purposes of Federal Major Modification, an emissions increase is significant if the increase, as calculated pursuant to 40 CFR part 51.165(a)(2)(ii)(B) through (D), and (F), exceeds a significance threshold from section 3.18 of Rule 2201. A net emissions increase is significant if the sum of the increases and decreases, as calculated pursuant to 40 CFR part 51.165(a)(2)(ii)(B) through (D), and (F), exceeds a significance threshold from section 3.18 of Rule 2201. For the purposes of this staff report, the determination of a net emissions increase will be referred to as "netting out" of the Federal Major Modification requirements.

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Nevertheless, 40 CFR 51.165 contains provisions that do not allow “netting out” of Federal Major Modification requirements for VOC and NO<sub>x</sub> emissions increases in an extreme ozone nonattainment area. Paragraphs 51.165(a)(1)(v)(F) and (a)(8) provide that any increase in VOC or NO<sub>x</sub> emissions resulting from a modification at a major stationary source located in an extreme ozone nonattainment area is considered a significant net emissions increase and thus is a Federal Major Modification.

Since the District is designated as an extreme nonattainment area for the 1997<sup>1</sup> and 2008<sup>2</sup> 8-hour ozone standards, the District has long interpreted and implemented the Federal Major Modification requirements for VOC and NO<sub>x</sub> consistent with 40 CFR 51.165 of the federal CAA and has only counted emissions increases, not decreases, in determining whether Federal Major Modification requirements are triggered.

To ensure consistency with the District’s longstanding interpretation of the applicability of Federal Major Modification requirements, the District is proposing to amend section 3.18.1 to include additional rule language. The proposed additional rule language will ensure that “netting out” is not applied when determining the applicability of Federal Major Modification requirements for VOC and NO<sub>x</sub> emissions in the Valley.

This proposed amendment does not result in any change in the District’s application of Federal Major Modification provisions and does not cause a change in the District’s implementation of the requirements for a Federal Major Modification.

## C. Proposed Rule Amendments

The proposed amendments in Draft Rule 2201 are outlined below:

- Section 3.18.1: Revise the “Less-Than-Significant Emissions Increase Exclusion” paragraph to clarify the requirements for VOC and NO<sub>x</sub> increases in extreme ozone nonattainment areas. The proposed amended paragraph reads as follows:

3.18.1 Less-Than-Significant Emissions Increase Exclusion: Except for VOC and NO<sub>x</sub>, An emissions increase for the project, or a net emissions increase for the project (as determined pursuant to 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant

<sup>1</sup> Designation of Areas for Air Quality Planning Purposes; California; San Joaquin Valley, South Coast Air Basin, Coachella Valley, and Sacramento Metro 8-Hour Ozone Nonattainment Areas; Reclassification. 75 Fed. Reg. 86, pp. 24409-24421. (2010, May 5). (to be codified 40 CFR Part 81), <http://www.gpo.gov/fdsys/pkg/FR-2010-05-05/pdf/2010-9599.pdf>

<sup>2</sup> Air Quality Designations for the 2008 Ozone National Ambient Air Quality Standards, 77 Fed. Reg. 98, pp. 30088-30160. (2012, May 21). (to be codified 40 CFR Parts 50, 51, and 81) <http://www.gpo.gov/fdsys/pkg/FR-2012-05-21/pdf/2012-11618.pdf>

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for a given regulated NSR pollutant, as defined in 40 CFR 51.165, is not a federal major modification for that pollutant. For VOC and NOx, an emissions increase for the project (as determined pursuant to 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)) that is not significant for a given regulated NSR pollutant, as defined in 40 CFR 51.165, is not a federal major modification for that pollutant.

- Sections 3.25.1.2 and 3.25.3.4: Revise each section to include the new name “Routine Replacement Emissions Unit” in place of the previous name “Replacement Emissions Unit”. The proposed amended sections read as follows:
  - 3.25.1.2 Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. A Routine Replacement Emissions Unit shall not be considered to be a structural change.
  - 3.25.3.4 A Routine Replacement Emissions Unit where the replacement part is the same as the original emissions unit in all respects except for the serial number.
- Sections 3.35, 3.35.1, and 3.35.5: Revise the definition for Replacement Emissions Unit to include the term “routine”. The proposed amended sections read as follows:
  - 3.35 Routine Replacement Emissions Unit: routine replacement in whole or in part of any article, machine, equipment, or other contrivance with a valid District Permit to Operate provided that all of the following conditions are met:
    - 3.35.1 There is no increase in permitted emissions from the replacement unit(s). For replacements at major sources, “no increase in permitted emissions” as used in this definition also means no significant emissions increase according to the applicability calculations of 40 CFR 51.165(a)(2)(ii)(C). For the purposes of this definition, a Routine Replacement Emissions Unit is an existing emissions unit.
    - 3.35.5 When the entire emissions unit is replaced as a routine replacement action, the emissions unit shall either have been addressed by a BARCT rule or shall be equipped with a control device capable of at least 85% emission control.
- Section 3.41: Amend the definition of Temporary Replacement Emissions Unit (TREU) in response to a comment from EPA requesting clarification that the

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existing emissions unit must have a valid District Permit to Operate. The proposed amended section reads as follows:

3.41 Temporary Replacement Emissions Unit (TREU): an emissions unit which is at a Stationary Source for less than 180 days in any twelve month period and replaces an existing emissions unit with a valid District Permit to Operate which is shut down for maintenance or repair.

- Sections 4.2.5 and 4.2.6: Clarify the Best Available Control Technology (BACT) exemption categories for TREU and Routine Replacement Emissions Unit. The proposed amended sections read as follows:

4.2.5 A Temporary Replacement Emissions Units;

4.2.6 A Routine Replacement Emissions Units; or

- Section 4.6.5: Clarify the Emission Offsets Exemptions category for TREU. The proposed amended section reads as follows:

4.6.5 A Temporary Replacement Emissions Units;

- Sections 8.0, 8.1, and 8.1.1: Revise each section to include the new name "Routine Replacement Emissions Unit" in place of the previous name "Replacement Emissions Unit". The proposed amended sections read as follows:

8.0 Application Shield for Routine Replacement Emissions Units and Temporary Replacement Emissions Units (TREUs)

8.1 For a Routine Replacement Emissions Unit, or a TREU, for which an Authority to Construct is required, the permitted source may continue to operate under an application shield, provided that all of the following conditions are met.

8.1.1 An application for the Routine Replacement Emissions Unit or TREU has been submitted within seven calendar days of completing the construction or installation of the replacement.

## IV. PROTECT CALIFORNIA AIR ACT OF 2003 - SENATE BILL 288

California Health and Safety Code sections 42500 through 42507 (SB 288) mandates that a district's New Source Review (NSR) rules cannot be made less stringent, in a variety of specified areas, than the rules that existed on December 30, 2002. This legislation was

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crafted and signed into law specifically to prevent Districts from implementing any Federal NSR reforms that would have relaxed California's stringent NSR requirements.

The state ARB has provided guidance on the implementation of SB 288 (California Air Resources Board Guidance, *New Source Review and Senate Bill 288* (August 2004, as amended April 2006)), and has concluded that there are four components of NSR that are affected by SB 288:

1. NSR applicability determinations;
2. The definitions of "modification", "major modification", "routine maintenance", and "repair or maintenance";
3. The calculation methodology, thresholds, or other procedures of new source review. ARB further interprets this to apply to baseline determinations, calculating emissions changes, offset amounts required, and major source and major modification thresholds; and
4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets<sup>3</sup>.

Per the ARB Guidance, each of these four components apply on an individual source basis (except for offsets, as discussed in 4 above), as well as on a programmatic basis. The proposed amendments to District Rule 2201 do not include any changes that would make the District's NSR rule less stringent than the rule that existed on December 30, 2002. Each of the proposed amendments to Rule 2201 are evaluated below to determine if there could be a relaxation of the NSR requirements for these four components.

## **A. Routine Replacement Emissions Unit**

As discussed in Section III.A above, removing the term "routine" from section 3.35 could have allowed for a misinterpretation of the rule resulting in more units being exempt from BACT requirements. Therefore, the District is proposing to reintroduce the term "routine" within the definition of Routine Replacement Emissions Unit and to amend section 3.35 to rename "Replacement Emissions Unit" as "Routine Replacement Emissions Unit". The following is an analysis of the SB 288 implications of the amendments, compared to the December 30, 2002, version of Rule 2201:

1. NSR applicability determinations are not relaxed:

Reintroducing the term "routine" will result in eliminating a potential misinterpretation of this definition and will ensure there is no change in the District's

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<sup>3</sup> While the District believes that this final component is an overly broad legal interpretation of the legislation, and inconsistent with the development and intent of the legislation, we believe the District's proposed amendments are complying with ARB's interpretation on this issue. However, we will reserve our right to challenge ARB on this issue at a later date, or if ARB uses this interpretation to contravene any of the District's proposed NSR amendments.

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longstanding application of section 3.35 of the Rule. This proposed amendment will not relax any NSR applicability determinations.

2. The definitions of “modification”, “major modification”, “routine maintenance”, and “repair or maintenance” are not relaxed:

Reintroducing the term “routine” will result in eliminating a potential misinterpretation of this definition and will ensure there is no change in the District’s longstanding application of section 3.35 of the Rule. This proposed amendment will not change the definitions of “modification”, “major modification”, “routine maintenance”, and “repair or maintenance” and will not relax any NSR requirements.

3. The calculation methodology, thresholds, or other procedures of new source review are not relaxed:

Reintroducing the term “routine” will result in eliminating a potential misinterpretation of this definition and will ensure there is no change in the District’s longstanding application of section 3.35 of the Rule. This proposed amendment will not change any calculation methodology, thresholds, or other procedure of new source review and will not relax any NSR requirements.

An analysis of the BACT, offsets, and public notification requirements of Rule 2201 is provided below:

- a. Requirements for BACT are not relaxed:

Rule 2201, section 4.1 requires BACT for any increase over 2.0 lb/day and for any SB 288 Major Modification or Federal Major Modification. Section 4.2.6 allows a Routine Replacement Emissions Unit to be exempt from BACT requirements. Reintroducing the term “routine” will result in eliminating a potential misinterpretation of this definition and will ensure there is no change in the District’s longstanding application of section 3.35 of the Rule. This proposed amendment will not change or relax any requirements for BACT.

- b. Requirements for offsets are not relaxed:

Rule 2201, section 4.5 requires emission offsets to mitigate new or increased emissions above specific thresholds and any emission increase for stationary sources which already exceed the offset thresholds. This proposed amendment will not change or relax any requirements for offsets.

- c. Requirements for public notice are not relaxed:

Public Noticing is required for significant new or modified sources of emissions. Rule 2201, section 5.4 lists the five thresholds which, if exceeded, will trigger a public notification. This proposed amendment will not change or relax any public notification requirements.

- 4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets, are not relaxed:

This proposed amendment will not relax any definitions and requirements of the District's NSR Rule or the requirement to obtain offsets, on a project specific or program wide basis, and will not relax any NSR requirements.

Based on the discussion above, this proposed change will not relax any NSR requirements and will not be a relaxation under SB 288.

**B. Temporary Replacement Emissions Unit (TREU) Definition**

The District is proposing to amend District Rule 2201, section 3.41 to clarify that the existing unit being replaced by a Temporary Replacement Emissions Unit (TREU) must have a valid District Permit to Operate (PTO). The following is an analysis of the SB 288 implications of this proposed amendment:

- 1. NSR applicability determinations are not relaxed:

Specifying the existing unit must have a valid District PTO will result in eliminating a potential misinterpretation of this definition by only allowing a TREU to replace an existing unit with a valid PTO. This proposed amendment does not result in any change in the District's longstanding application of section 3.41 of the Rule. This proposed amendment will not relax any NSR applicability determinations.

- 2. The definitions of "modification", "major modification", "routine maintenance", and "repair or maintenance" are not relaxed:

Specifying the existing unit must have a valid District PTO will result in eliminating a potential misinterpretation of this definition by only allowing a TREU to replace an existing unit with a valid PTO. This proposed amendment does not result in any change in the District's longstanding application of section 3.41 of the Rule. This proposed amendment will not relax the definitions of "modification", "major modification", "routine maintenance", or "repair or maintenance" and will not relax any NSR requirements.

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3. The calculation methodology, thresholds, or other procedures of new source review are not relaxed:

Specifying the existing unit must have a valid District PTO will result in eliminating a potential misinterpretation of this definition by only allowing a TREU to replace an existing unit with a valid PTO. This proposed amendment does not result in any change in the District's longstanding application of section 3.41 of the Rule. This proposed amendment will not change any calculation methodology, thresholds, or other procedure of new source review and will not relax any NSR requirements.

4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets, are not relaxed:

Specifying the existing unit must have a valid District PTO will result in eliminating a potential misinterpretation of this definition by only allowing a TREU to replace an existing unit with a valid PTO. This proposed amendment does not result in any change in the District's longstanding application of section 3.41 of the Rule. The proposed amendment will not relax any definitions and requirements of the District's NSR Rule or the requirement to obtain offsets, on a project specific or program wide basis, and will not relax any NSR requirements.

Based on the discussion above, this proposed amendment will not relax any NSR requirements and will not be a relaxation under SB 288.

## **C. Federal Major Modification Definition**

As discussed in Section III.B above, 40 CFR 51.165 contains provisions that do not allow "netting out" of Federal Major Modification requirements for VOC and NOx emissions increases in an extreme ozone nonattainment area. Therefore, the District is proposing to amend District Rule 2201, section 3.18.1 by including additional rule language that clarifies the Federal Major Modification calculation requirements, consistent with the District's longstanding practice. The following is an analysis of the SB 288 implications of this proposed amendment:

1. NSR applicability determinations are not relaxed:

The inclusion of EPA's suggested additional rule language for VOC and NOx emissions in extreme ozone nonattainment areas in the Federal Major Modification definition is consistent with the District's longstanding application of Federal Major Modification requirements for VOC and NOx emissions. This proposed amendment will not relax any NSR applicability determinations.

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2. The definitions of “modification”, “major modification”, “routine maintenance”, and “repair or maintenance” are not relaxed:

The inclusion of EPA’s suggested additional rule language for VOC and NOx emissions in extreme ozone nonattainment areas in the Federal Major Modification definition is consistent with the District’s longstanding application of Federal Major Modification requirements for VOC and NOx emissions. This proposed amendment will not relax the definitions of “modification”, “major modification”, “routine maintenance”, or “repair or maintenance” and will not relax any NSR requirements.

3. The calculation methodology, thresholds, or other procedures of new source review are not relaxed:

The inclusion of EPA’s suggested additional rule language for VOC and NOx emissions in extreme ozone nonattainment areas in the Federal Major Modification definition is consistent with the District’s longstanding application of Federal Major Modification requirements for VOC and NOx emissions. This proposed amendment will not change any calculation methodology, thresholds, or other procedure of new source review and will not relax any NSR requirements.

4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets, are not relaxed:

The inclusion of EPA’s suggested additional rule language for VOC and NOx emissions in extreme ozone nonattainment areas in the Federal Major Modification definition is consistent with the District’s longstanding application of Federal Major Modification requirements for VOC and NOx emissions. The proposed amendment will not relax any definitions and requirements of the District’s NSR Rule or the requirement to obtain offsets, on a project specific or program wide basis, and will not relax any NSR requirements.

Based on the discussion above, this proposed amendment will not relax any NSR requirements and will not be a relaxation under SB 288.

## V. RULE DEVELOPMENT PROCESS

The proposed amendments to District Rule 2201 are considered supplemental to the Rule 2201 amendments that were adopted by the District’s Governing Board on February 18, 2016. The February 18, 2016, amendments were adopted to address the District’s reclassification from moderate to serious nonattainment for the 1997 and 2006 PM2.5 standards. EPA’s Final Rule requires states to submit an approvable NSR program for the PM2.5 standard within 12 months after reclassification as serious nonattainment. Thus, EPA mandates that the District’s NSR program was to be submitted to EPA for inclusion

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into the SIP before May 7, 2016 (80 FR 18528). While the District submitted a timely rule amendment to ARB in February 2016, the ARB, as discussed above, felt that the rule potentially violated SB 288 and therefore did not forward to EPA for inclusion into the SIP.

Therefore, the District is proposing to amend District Rule 2201 as discussed above.

## **A. Public Workshop**

District staff will host a public workshop on July 26, 2016, and are soliciting written comments from the public, affected sources, ARB, and EPA by August 9, 2016. Any comments received during the public comment period will be addressed and incorporated into the draft rule as appropriate.

## **B. Public Hearing**

In accordance with California Health and Safety Code (CH&SC) section 40725, the proposed amendments to Rule 2201 and the draft staff report will be publicly noticed and made available at least thirty days prior to the September 15, 2016, Governing Board public hearing to consider adoption of the proposed rule amendments. The public will be invited to provide comments to District Governing Board members during the public hearing. Upon adoption, Rule 2201 will be forwarded to the state ARB which will forward the rule to EPA for inclusion in the SIP.

## **VI. COST EFFECTIVENESS AND SOCIOECONOMIC IMPACT ANALYSIS**

Pursuant to CH&SC section 40920.6(a), the District is required to analyze the cost effectiveness of new rules or rule amendments that implement Best Available Retrofit Control Technology (BARCT). The proposed amendments do not add BARCT requirements and therefore are not subject to the cost effectiveness analysis mandate.

Additionally, CH&SC section 40728.5(a) requires the District to analyze the socioeconomic impacts of any proposed rule amendment that significantly affects air quality or strengthens an emission limitation. The proposed amendments will have neither effect; therefore, the proposed amendments are not subject to the socioeconomic analysis mandate.

## **VII. RULE CONSISTENCY ANALYSIS**

Pursuant to CH&SC section 40727.2(g), a rule consistency analysis of the draft rule is required if the draft rule strengthens emission limits or imposes more stringent monitoring, reporting, or recordkeeping requirements. The draft rule does not strengthen emission limits or impose more stringent monitoring, reporting, or recordkeeping requirements; therefore, a rule consistency analysis is not required.

**VIII. ENVIRONMENTAL ASSESSMENT**

The purpose of this rule-amending project is to address comments from the state ARB and US EPA on the District's February 18, 2016, amendments to Rule 2201 which were adopted by the District's Governing Board to address the federal PM2.5 new source review requirements under subpart 4 of the CAA. The proposed amendments include clarifications to the name and definition for Routine Replacement Emissions Units, the definition for Temporary Replacement Emissions Units (TREUs), and the definition for Federal Major Modification.

According to the California Environmental Quality Act (CEQA) statutes and pursuant to section 15061 of the CEQA Guidelines, the District will investigate the likely environmental impacts of the additional proposed amendments to Rule 2201. District staff will conduct an investigation further in the rule development process and recommend appropriate action to the District Governing Board.

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Appendix A: February 18, 2016 Final Staff Report

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**APPENDIX A**

**Final Staff Report with Appendices  
February 18, 2016 Amendments to District Rule 2201**

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# **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**

## **FINAL STAFF REPORT**

### **Proposed Amendments to Rule 2201 (New and Modified Stationary Source Review Rule)**

February 18, 2016

Prepared by: Robert Gilles, Air Quality Engineer

Reviewed by: Errol Villegas, Permit Services Manager  
Arnaud Marjollet, Director of Permit Services  
Dave Warner, Deputy Air Pollution Control Officer

#### **I. SUMMARY**

The San Joaquin Valley Air Pollution Control District (District) is proposing to amend District Rule 2201 (New and Modified Stationary Source Review (NSR) Rule) to address the District's reclassification from Moderate to Serious nonattainment for the 1997 and 2006 National Ambient Air Quality Standards (NAAQS, or standards) for particulate matter with an aerodynamic diameter of less than 2.5 microns (PM<sub>2.5</sub>).

To comply with federal requirements for serious nonattainment areas, the District is proposing to amend District Rule 2201 to lower the PM<sub>2.5</sub> Major Source Emission Threshold from 100 tons per year to 70 tons per year. In addition, the District will address Clean Air Act Section 189(e) precursor requirements for major stationary sources of PM<sub>2.5</sub>.

Further, the District is proposing to amend District Rule 2201 to clarify in the definition of PM<sub>2.5</sub> that PM<sub>2.5</sub> includes the condensable portion of particulate pollution.

In addition, the District is taking this opportunity to add certain types of Temporary Replacement Emissions Units (TREUs) to the application shield provisions of District Rule 2201, Section 8.

Also, the reference to the offset threshold for carbon monoxide (CO) – nonattainment areas in Section 4.5.3, Table 4-1 will be removed, as there are no nonattainment areas in the Valley.

**II. DESCRIPTION OF RULE 2201 (NEW AND MODIFIED STATIONARY SOURCE REVIEW RULE)**

The District's NSR Rule provides a regulatory mechanism for allowing continued economic growth while minimizing the amount of emission increases due to this growth. District Rule 2201 applies to all new stationary sources and all modifications to existing stationary sources that are subject to District permit requirements. For smaller sources of emissions, there are certain permitting exemptions identified in District Rule 2201 and District Rule 2020 (Exemptions).

The District's NSR program is designed to meet both the state and federal NSR requirements for nonattainment areas and applies to new and modified stationary sources that emit nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), particulate matter with an aerodynamic diameter of less than 10 microns (PM<sub>10</sub>), PM<sub>2.5</sub>, sulfur oxides (SO<sub>x</sub>), CO, and other pollutants subject to District permitting requirements pursuant to District Rule 2010 (Permits Required).

Key features of Rule 2201 include:

- Best Available Control Technology (BACT): mandates emission controls to minimize emission increases above de minimis values;
- Emission offsets: requires emissions above specified offset threshold levels to be mitigated with either concurrent reductions or past reductions which have been banked as emission reduction credits (ERC);
- Public notification: a 30 or 45 day notice period prior to issuance of an Authority to Construct (ATC) to garner comments on projects that result in emissions above specified levels;
- Required elements for Authority to Construct, Permit to Operate and administrative requirements for the processing of NSR applications.

**III. BACKGROUND AND DISCUSSION OF PROPOSED RULE AMENDMENTS**

**A. Major Source and Federal Major Modification Thresholds**

Major Source and Federal Major Modification are for federal nonattainment new source review (NSR), which is applicable to pollutants for which the District is classified as nonattainment of the corresponding NAAQS.

The federal NSR permitting program relies on emissions thresholds to determine when requirements apply to new stationary sources and to modifications of existing stationary sources. If a new or modified facility will emit target air pollutants in amounts greater than the major source emission threshold, the facility is considered a major

source. If emissions increases of target air pollutants from a new facility or modified facility are greater than the federal major modification significance threshold, the increase is considered significant and the project will be a major modification pursuant to 40 CFR Part 51.165.

Sources in a serious nonattainment area are defined as major sources for nonattainment NSR provisions if they have a potential to emit 70 or more tons per year of PM<sub>2.5</sub>. An increase in PM<sub>2.5</sub> emissions is considered significant if it exceeds 20,000 pounds per year of direct PM<sub>2.5</sub> emissions or if the increase exceeds 80,000 pounds per year of a significant precursor pollutant.

Currently, District Rule 2201 has a PM<sub>2.5</sub> major source threshold of 200,000 pounds per year (100 tons per year), and this proposed amendment will lower this threshold to 140,000 pounds per year (70 tons per year) due to the District's classification as a Serious nonattainment area for PM<sub>2.5</sub>. District Rule 2201 also lists NO<sub>x</sub> and SO<sub>x</sub> as significant precursors to PM<sub>2.5</sub>. The current rule lists a federal major modification threshold of zero pounds per year for NO<sub>x</sub>, as it is also a significant precursor to ozone, and 80,000 pounds per year for SO<sub>x</sub>. As these thresholds meet requirements for serious PM<sub>2.5</sub> nonattainment areas, they will not be changed, as detailed further below.

## **B. PM<sub>2.5</sub> Precursors**

Ambient PM<sub>2.5</sub> is comprised of many different constituents, and as a result, there are multiple precursor pollutants, such as NO<sub>x</sub>, SO<sub>x</sub>, VOC and ammonia, that may lead to PM<sub>2.5</sub> formation. Pursuant to the federal Clean Air Act (CAA) Section 189(e), control requirements applicable to major sources of PM<sub>2.5</sub> must also apply to major sources of PM<sub>2.5</sub> precursors, except where such sources do not contribute significantly to PM<sub>2.5</sub> levels that exceed the standard in the area. As required by Subpart 4 of the CAA, all precursors are presumed to be significant, unless demonstrated they are not. An evaluation of the four PM<sub>2.5</sub> precursor pollutants is below.

### **1. NO<sub>x</sub> and SO<sub>x</sub> Contribution to PM<sub>2.5</sub> Concentrations**

District Rule 2201 currently lists NO<sub>x</sub> and SO<sub>x</sub> as significant precursors to PM<sub>2.5</sub> with a federal major modification threshold of 80,000 pounds per year, and no changes for these pollutants are proposed.

### **2. Ammonia Contribution to PM<sub>2.5</sub> Concentrations**

In the Valley, there is extensive scientific research and technical analysis demonstrating that ammonia reductions do not contribute significantly to PM<sub>2.5</sub> attainment. As detailed in Chapter 4 of the *2012 PM<sub>2.5</sub> Plan*<sup>1</sup> and Chapter 2 of the

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<sup>1</sup>[http://www.valleyair.org/Air\\_Quality\\_Plans/PM25Plan2012/CompletedPlanbookmarked.pdf](http://www.valleyair.org/Air_Quality_Plans/PM25Plan2012/CompletedPlanbookmarked.pdf)

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2015 Plan for the 1997 PM<sub>2.5</sub> Standard (*2015 PM<sub>2.5</sub> Plan*)<sup>2</sup>, ammonium nitrate is the predominant secondary PM<sub>2.5</sub> species, and is formed from nitric acid and ammonia. The plans go on to demonstrate that there is a relative abundance of ammonia compared to nitric acid, and that nitric acid (i.e. NO<sub>x</sub>) is the limiting factor in forming ammonium nitrate.

Due to this extensive body of science that clearly shows that reducing NO<sub>x</sub> emissions is very effective in reducing PM<sub>2.5</sub> values, while reducing ammonia emissions is not effective, ammonia reductions have not historically been considered a significant precursor to PM<sub>2.5</sub> formation in the Valley.

## a. Major Source Contribution

There are only a few major stationary sources of ammonia emissions in the Valley, and the ammonia major stationary sources contribute only a small portion of the total ammonia inventory from all sources in the Valley (including stationary and mobile sources). Ammonia major sources include power plants with Selective Catalytic Reduction (SCR) systems, which rely on the use of ammonia as a reagent for the control system, and a few agricultural operations (one large dairy and 4 large poultry operations). The following table compares the major source ammonia emissions from the District's 2014 emissions inventory to the total inventory of ammonia emissions within the San Joaquin Valley<sup>3</sup>.

<b>Major Source Emission Contribution</b>			
Pollutant	Total Inventory (tons/day)	Major Source Inventory (tons/day)	Major Source Contribution
Ammonia	334.2	2.32	<b>0.69%</b>

As shown in the preceding table, ammonia emissions from ammonia major sources are just 0.69% of the total ammonia inventory in the Valley. As such, existing major stationary sources of ammonia emissions do not contribute significantly to PM<sub>2.5</sub> levels that exceed the 1997 and 2006 NAAQS in the San Joaquin Valley.

## b. Minimizing Growth in Stationary Source Ammonia Emissions

As the existing major sources of ammonia represent a very small fraction of the Valley's total ammonia inventory, any future growth in major source ammonia emissions will also be a small part of the overall growth in the inventory. As shown in Appendix B of the *2015 PM<sub>2.5</sub> Plan*, the expected growth in ammonia emissions from all sources in the Valley from 2014 to 2020 is 21.8 tons per day.

<sup>2</sup> [http://www.valleyair.org/Air\\_Quality\\_Plans/docs/PM25-2015/2015-PM2.5-Plan\\_Bookmarked.pdf](http://www.valleyair.org/Air_Quality_Plans/docs/PM25-2015/2015-PM2.5-Plan_Bookmarked.pdf)

<sup>3</sup> CEPAM San Joaquin Valley 2015 MSM PM<sub>2.5</sub> SIP Planning Inventory v.1.01

As the major sources of ammonia comprise 0.69% of the total inventory, their contribution to the growth would only be 0.15 tons per day by 2020, an insignificant portion of the projected inventory of over 350 tons per day in 2020.

Additionally, Rule 2201 does provide for the regulation of ammonia through the District's BACT requirements. Any new and modified ammonia sources in the Valley require BACT if increases in daily emissions exceed 2 pounds. District BACT is at least as stringent as federal Lowest Achievable Emission Rate (LAER), which is more stringent than federal BACT. Under federal NSR, ammonia as a precursor would not be regulated unless the increase was at least 40 tons per year. Therefore, District Rule 2201 currently controls ammonia growth at levels far below the federal NSR threshold. As such, new and modified major stationary sources of ammonia emissions will not contribute significantly to PM<sub>2.5</sub> levels that exceed the 1997 and 2006 NAAQS in the San Joaquin Valley.

c. Sensitivity Analysis of Ammonia Contribution to PM<sub>2.5</sub> Concentration

A sensitivity analysis was conducted as part of the *2012 PM<sub>2.5</sub> Plan* to evaluate the effectiveness of reducing PM<sub>2.5</sub> precursors, including ammonia, compared to reducing direct PM<sub>2.5</sub> emissions. As the District's major sources of ammonia are spread throughout the Valley, the valley-wide modeling sensitivity analysis conducted for the *2012 PM<sub>2.5</sub> Plan* is appropriate. Of the PM<sub>2.5</sub> monitoring sites in the Valley, the Bakersfield-California site has the highest PM<sub>2.5</sub> design value, and will be the last site to reach attainment of the PM<sub>2.5</sub> NAAQS: as this is the worst site, it will be used as the basis of this analysis.

As detailed in Appendix G of the *2012 PM<sub>2.5</sub> Plan*, reductions in ammonia emissions achieve insignificant reductions in the 2019 PM<sub>2.5</sub> design values:

- A 1 ton per day reduction in the Valley's total direct PM<sub>2.5</sub> emissions reduces the Bakersfield-California PM<sub>2.5</sub> design value by 0.34 µg/m<sup>3</sup>
- A 1 ton per day reduction in the Valley's total NO<sub>x</sub> emissions reduces the Bakersfield-California PM<sub>2.5</sub> design value by 0.08 µg/m<sup>3</sup>
- A 1 ton per day reduction in the Valley's total ammonia emissions reduces the Bakersfield-California PM<sub>2.5</sub> design value by a mere 0.008 µg/m<sup>3</sup>

Relative to the other pollutants, ammonia emission reductions at the Bakersfield-California site are only 2.3% as effective as directly emitted PM<sub>2.5</sub> emission reductions, and only 10% as effective as NO<sub>x</sub> emission reductions. It would take an unreasonable tonnage of ammonia reductions to reduce a significant amount of PM<sub>2.5</sub> mass. If all ammonia emissions from all major

ammonia sources in the Valley were completely eliminated (2.32 tons per day), this would only reduce the PM<sub>2.5</sub> design value by 0.019 µg/m<sup>3</sup>.

While the District believes this Valley-wide sensitivity analysis is the appropriate approach, some may argue for an analysis of the effects of reducing PM<sub>2.5</sub> and precursor emissions in the areas with the highest monitored PM<sub>2.5</sub> levels, historically the Bakersfield-California site. Therefore, a similar sensitivity analysis was focused on the effect that localized reductions would have on the Bakersfield-California site. The following were the findings of that analysis:

- A 1 ton per day reduction in Kern County's total direct PM<sub>2.5</sub> emissions reduces the Bakersfield-California PM<sub>2.5</sub> design value by 1 µg/m<sup>3</sup>
- A 1 ton per day reduction in Kern County's total NO<sub>x</sub> emissions reduces the Bakersfield-California PM<sub>2.5</sub> design value by 0.12 µg/m<sup>3</sup>
- A 1 ton per day reduction in Kern County's total ammonia emissions reduces the Bakersfield-California PM<sub>2.5</sub> design value by only 0.02 µg/m<sup>3</sup>

Only six of the seventeen ammonia major sources in the Valley are located in Kern County, representing 0.775 tons per day of emissions. If the ammonia emissions from these six sources were completely eliminated, the PM<sub>2.5</sub> design value would decrease by only 0.0155 µg/m<sup>3</sup>, even less than the reduction of 0.019 µg/m<sup>3</sup> achieved by completely eliminating all major ammonia source emissions in the entire Valley.

Thus, controlling major source ammonia emissions in the San Joaquin Valley does not significantly contribute to attainment of the 1997 and 2006 PM<sub>2.5</sub> NAAQS.

As demonstrated above, ammonia emissions from major sources do not contribute significantly to PM<sub>2.5</sub> nonattainment in the SJV. Therefore, ammonia need not be addressed as a precursor to PM<sub>2.5</sub> in the District's NSR program.

### **3. VOC Contribution to PM<sub>2.5</sub> Concentrations**

In the Valley, there is extensive scientific research and technical analysis demonstrating that VOC reductions do not contribute to PM<sub>2.5</sub> attainment. In both the *2012 PM<sub>2.5</sub> Plan* and the *2015 PM<sub>2.5</sub> Plan*, the District discusses the importance of NO<sub>x</sub> controls and demonstrates that NO<sub>x</sub> controls are the most effective approach to reduce PM<sub>2.5</sub> nitrate concentrations in the Valley. Modeling also shows that once NO<sub>x</sub> controls are taken into consideration, VOC emissions reductions produce essentially no benefit in reducing PM<sub>2.5</sub> concentrations.

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As such, the Valley's VOC emissions do not need to be reduced to address EPA's PM2.5 standard. In 80 FR 1826, January 13, 2015, EPA concurs with the conclusion that VOC emissions do not contribute significantly to the formation of PM2.5 as stated in their proposed approval of the District's 2012 PM2.5 plan to address the 2006 PM2.5 standard: "*Based on a review of the information provided by the District and other information available to EPA, we propose to determine that at this time VOC emissions do not contribute significantly to ambient PM2.5 levels...*"<sup>4</sup>

The role of VOCs in the Valley's PM2.5 concentrations is discussed in detail in Chapter 4 and Appendix F (Modeling Protocol) of the *2012 PM2.5 Plan*, and is summarized here.

For the *2012 PM2.5 Plan*, the effectiveness of reducing PM2.5 precursors, including VOCs, was compared to reducing direct PM2.5 emissions and was quantified using inter-pollutant equivalency ratios<sup>5</sup>. Sensitivity analysis was performed for 10% reductions of primary PM2.5 as well as for each precursor separately. The results of the modeling runs are plotted on isopleth diagrams (also referred to as carrying capacity diagrams). These carrying capacity diagrams show the level of emissions that the atmosphere can "carry" and still demonstrate attainment. The carrying capacity diagrams presented in Chapter 4 of the *2012 PM2.5 Plan* (Figures 4-15 through 4-24)<sup>6</sup> show that NOx and directly-emitted PM2.5 are the most effective precursors to reduce to improve 24-hour PM2.5 design values, while additional VOC reductions do not correspond to improvements in PM2.5 design values.

This modeling showed that once NOx controls are taken into consideration, VOC emission reductions produce essentially no benefit. In fact, in some instances, VOC emissions reductions may actually lead to an increase in PM2.5 nitrate formation. Nitrogen-containing molecules such as PAN can act as temporary sinks for NO2. When VOCs are controlled, the reduced availability of certain radicals which are generated from VOCs reduces the amount of NO2 that is sequestered, thereby increasing the availability of NO2 and enhancing ammonium nitrate formation<sup>7</sup>.

Although VOC is not a significant contributor to PM2.5 in the Valley, Rule 2201 provides for the regulation of VOC as a precursor to ozone. The level to which

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<sup>4</sup> *Approval and Promulgation of Implementation Plans; Designation of Areas for Air Quality Planning Purposes; California; San Joaquin Valley Moderate Area Plan and Reclassification as Serious Nonattainment for the 2006 PM2.5 NAAQS; Proposed Rule, 80 Federal Register 8. Pp. 1816-1846. (p. 1826) (2015, January 13).*

<sup>5</sup> *2012 PM2.5 Plan Appendix F (Modeling Protocol)*, p 127. <http://www.valleyair.org/Workshops/postings/2012/12-20-12PM25/FinalVersion/16%20Appendix%20F%20Modeling%20Protocol.pdf>

<sup>6</sup> *2012 PM2.5 Plan Chapter 4*, p 4-31 through 4-40. <http://www.valleyair.org/Workshops/postings/2012/12-20-12PM25/FinalVersion/04%20Chapter%204%20Sci%20Foundation%20and%20Modeling.pdf>

<sup>7</sup> Meng, Z., Dabdub, D., and Seinfeld, J.H., 1997, Chemical Coupling Between Atmospheric Ozone and Particulate Matter, *Science*, 277, 116-119.

major sources of VOC are controlled in the District's NSR rule is extensive, since the Valley is classified as an extreme nonattainment area for ozone. VOC sources in the Valley are major sources at 10 TPY, have an emission offset threshold of 10 TPY, have a distance offset ratio of 1.5 to 1, require BACT if daily emissions exceed 2 pounds, require public notification if emission increases exceed either 100 lb/day for new sources or 20,000 lb/year for modified sources, and have a significance threshold of zero for federal major modifications. Therefore, VOC as an ozone precursor is controlled through the District's NSR rule at levels much lower than if they would be controlled as a PM2.5 precursor.

As demonstrated above, VOC emissions from major sources do not contribute significantly to PM2.5 nonattainment in the SJV. Therefore, VOC need not be addressed as a precursor to PM2.5 in the District's NSR program.

**C. PM2.5 Definition Pertaining to Condensable Particulates**

PM2.5 is comprised of both filterable and condensable particulate matter. Filterable PM2.5 is either a solid or liquid and is generally stable in the atmosphere, while condensable PM2.5 is a vapor or gas at stack temperature, but at ambient conditions, the matter condenses to liquid or solid.

In EPA's Clean Air Fine Particulate Implementation Rule (72 FR 20586, April 25, 2007) and Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5) rule (73 FR 28321, May 16, 2008), EPA explicitly included condensable matter in their PM2.5 definition for purposes of federal NSR applicability, citing the Consolidated Emissions Reporting rule (67 FR 39602, June 10, 2002), where it was first included for PM2.5.

The District has historically included condensable particulate emissions in its definition of total particulate emissions, well ahead of federal and other states' efforts to address this issue, and PM2.5 condensable emissions are treated as a part of total PM2.5 emissions under the District's rules and are not excluded for the purposes of triggering any federal new source review requirements. Rule 2201 currently defines PM2.5 as "*particulate matter with an aerodynamic diameter smaller than or equal to a nominal 2.5 microns,*" and Rule 1020 (Definitions) defines Particulate Matter as "*any material except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.*" Since condensable particulate matter is, by definition, matter which condenses to a particulate form at ambient conditions, the District sees no way to read its regulations other than to conclude that PM2.5 includes condensable PM2.5.

This has included establishing permit requirements for various emissions sources that include condensable particulates as part of total particulate emissions limitations and associated emissions testing requiring that condensable particulates be measured

(including utilizing an EPA-approved modified test method ahead of EPA's official test method, Method 202)<sup>8</sup>.

While the District is currently following federal regulations by accounting for the PM2.5 and PM10 condensable portions in its permitting process, the District will revise the definition for PM2.5 in Rule 2201 to clarify that condensable particulates are included.

**D. Application Shield for Temporary Replacement Emissions Units**

**NOTE: The federal EPA provided late verbal comments on the appropriateness of the District's Application Shield provisions and the definition of "Routine Replacement". The District's responses to these comments are contained in Appendix A of this staff report, and changes have been made to the rule as a result of EPA's comments. These changes are also captured in Appendix A, but are not detailed below. The changes are consistent with District interpretation and implementation of the rule and with existing federal law, and are therefore not significant.**

District Rule 2201 contains an application shield for routine replacements, as defined in the Rule (Section 3.35), to allow them to be installed without first applying for an Authority to Construct (ATC), provided the application is submitted to the District within 7 calendar days of completing the installation of the replacement and the source operates with no increased emissions or throughput and complies with other applicable requirements detailed in the Rule as discussed further below. A routine replacement is a permanent replacement of an existing emissions unit, so the application shield provides no benefit to situations where a unit is brought in to temporarily replace the main unit while the main unit is repaired. The result of this incongruity is that a temporary replacement faces tougher regulatory hurdles than a permanent replacement before installation. The District believes that temporary replacements should also benefit from this application shield and, if certain precautions are taken, no impact on air quality will result.

Currently, when a unit must be shut down for repair or maintenance and the source wants to use a Temporary Replacement Emissions Unit (TREU) in place of the shutdown unit, they must first obtain an ATC before the TREU can be installed and utilized. It has been a longstanding frustration for sources in the Valley that these temporary operations that really need this shield are precluded from using it. While the District expedites issuance of TREU ATCs (with a commitment to issue the ATC within 7 days of the receipt of the complete application for a TREU), this doesn't allow the source to install a TREU as quickly as they can have it delivered to the site, as could a routine replacement. Because facilities are quite often relying on these temporary replacements to restart their business or operation, any delay can be devastating. To alleviate this frustration while still ensuring the requirements of District Rule 2201 are

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<sup>8</sup> <http://www.epa.gov/ttn/emc/methods/method202.html>

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met and no negative impact on air quality is created, this proposed amendment would allow certain TREUs to enjoy the application shield of Section 8.

The table below captures the current application shield requirements for routine replacements and demonstrates that the proposed TREU application shield requirements are equivalent. For both types, there is no increase in emissions allowed compared to the replaced unit and there must not be a change in function. The application shield for TREUs is also limited by Section 8 to those with the same limitations on design capacity and Best Available Retrofit Control Technology (BARCT) applicability. In addition, TREUs utilizing this application shield cannot, due to their temporary nature, constitute a Reconstructed Source.

<b>Routine Replacements and TREUs eligible for application shield</b>	
<b>Routine Replacements</b>	<b>TREUs</b>
No increase in potential to emit - (3.35.1)	No increase in potential to emit - (3.41.1, 8.1.3.2)
Allowed increase in design capacity up to 10% with no increase in potential to emit or throughput - (3.35.2)	Allowed increase in design capacity up to 10% with no increase in potential to emit or throughput - (8.1.3.1, 8.1.3.2)
Replacement performs same function -(3.35.3)	Replacement performs same function - (3.41, 8.1.3.3)
Replacement will not constitute a Reconstructed Source (3.34) or Reconstruction (40 CFR 60.15) – (3.35.4)	As a temporary replacement, the original emissions unit will be put back into service; therefore the TREU is not a Reconstructed Source or Reconstruction – (3.41.3)
If entire unit replaced, replacement is addressed by BARCT rule or equipped with control device capable of 85% control – (3.35.5)	Temporary replacement must be addressed by BARCT rule or equipped with control device capable of 85% control – (8.1.3.4)

Please note that the District is taking this opportunity to also clarify Section 8.1.1 to make it consistent with rule intent and District past practice. Since this section provides a pre-construction application shield, the application is due within seven calendar days of completing the construction or installation of the replacement unit.

**E. CO Nonattainment Area Offset Threshold**

Prior to 1998, some areas of the Valley were not in attainment for the Federal CO NAAQS, while the rest of the Valley was in attainment. As a result of this situation, early versions of Rule 2201 listed two different offset thresholds for CO emissions: 30,000 pounds per year for nonattainment areas and 200,000 pounds per year for attainment areas. Since 1998, all areas of the District have been classified as attainment for the CO NAAQS<sup>9</sup>. Therefore, for the past 17 years the nonattainment area offset threshold for CO has no meaning or applicability. For this reason, the

<sup>9</sup> EPA designated the Valley as attainment for the CO NAAQS on 3/31/1998, effective 6/1/1998 (73 Fed. Reg. 66759-66775).

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District is proposing to remove the CO offset threshold for nonattainment areas. Although no CO attainment problems are anticipated due to the significantly cleaner mobile source fleet in California, and similar reductions from stationary sources, if the District is found to be in nonattainment for CO in the future, the District will be required to adopt appropriate NSR revisions in a timely manner.

## **F. PM2.5 Annual Offset Equivalency Tracking**

The District uses several innovative NSR program provisions, such as more certainty and flexibility in the use of Emission Reduction Credits (ERCs) and enhanced offsetting requirements, which were designed to make the permitting process less burdensome and more certain and transparent for both affected industry and the District while still maintaining compliance with federal NSR requirements. As part of an agreement between the EPA and the District to allow this rule flexibility, the District is tracking the ERCs collected under its NSR program and must make an annual demonstration that these ERCs are equivalent to both the amount of surplus ERCs, and the total amount of ERCs, to those which would be collected under a federal NSR offsetting program.

Section 7 of Rule 2201 specifies the tracking and reporting actions involved with the annual equivalency demonstration and steps to be taken to correct any ERC shortfalls. This section also details the required actions to be taken if an ERC shortfall occurred. Rule 2201 has a self-implementing offset shortfall remedy procedure which entails following the federal offsetting requirements directly, until the shortfall is eliminated. The system is designed to be invisible to permittees unless equivalency cannot be demonstrated and the indicated remedies must be implemented.

As currently written, Rule 2201, Section 7, is pollutant neutral. It requires the appropriate tracking and demonstrations for all pollutants for which federal offsetting requirements are triggered. Therefore, Section 7 fully addresses the use of PM2.5 offsets and requires the appropriate tracking and annual demonstration without any change in rule language. To date, there have been no new major sources of PM2.5 and only one federal major modification project that required the use of PM2.5 offsets in the San Joaquin Valley.

## **G. Proposed Rule Amendments**

**NOTE: The federal EPA provided late verbal comments on the appropriateness of the District's Application Shield provisions and the definition of "Routine Replacement". The District's responses to these comments are contained in Appendix A of this staff report, and changes have been made to the rule as a result of EPA's comments. These changes are also captured in Appendix A, but are not detailed below. The changes are consistent with District interpretation and implementation of the rule and with existing federal law, and are therefore not significant.**

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The proposed amendments in Draft Rule 2201 are outlined below:

- Section 3.24: Revise the Major Source Emission Threshold for PM2.5 in Table 3-3 to lower it from 200,000 lb/year to 140,000 lb/year. The proposed amended table reads as follows:

POLLUTANT	THRESHOLD (POUNDS PER YEAR)
VOC	20,000
NOx	20,000
CO	200,000
PM2.5	140,000 <del>200,000</del>
PM10	140,000
SOx	140,000

- Section 3.28: Expand the definition of PM2.5 to clarify that the condensable portion of particle pollution is included in PM2.5. In response to EPA comments as discussed in Appendix A, the District is revising the proposed definition of PM2.5 and the amended PM2.5 definition reads as follows:

3.28 PM2.5: particulate matter with an aerodynamic diameter smaller than or equal to a nominal 2.5 microns, including gaseous emissions which condense to form particulate matter at ambient temperatures.

- Section 4.5.3: Remove the reference to CO (nonattainment areas) in Table 4-1 as there are no nonattainment areas in the Valley, and remove the phrase (attainment areas) from the CO (attainment areas) line. The proposed amended table reads as follows:

POLLUTANT	SSPE2 (POUNDS / YEAR)
VOC	20,000
NOx	20,000
<del>CO (non-attainment areas)</del>	<del>30,000</del>
CO (attainment areas)	200,000
SOx	54,750
PM10	29,200

- Section 7.1.1: In response to EPA comments as discussed in Appendix A, include the words “increase” and “and modified” to the existing section to clarify some of the federally required offsets that must be tracked pursuant to 40 CFR 51.165, and Title I part D of the Clean Air Act (CAA). The proposed amended section reads as follows:

7.1.1 The quantity of offsets that would have been required for new major sources and federal major modifications in the District had the federal

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new source review requirements, codified in 40 CFR 51.165, and Title I part D of the Clean Air Act (CAA), been applied to these sources. These requirements include offsetting the full emissions increase from new and modified major sources, using actual emissions baselines when required under 40 CFR 51.165, and providing offsets necessary to meet the CAA offset ratio requirements and provide a net air quality benefit.

- Section 8: Allow certain Temporary Replacement Emissions Units to utilize the temporary application shield provided for in Section 8. The proposed amended sections reads as follows:

## 8.0 Application Shield for Routine Replacement and Temporary Replacement Emissions Unit (TREU)

8.1 For a Routine Replacement or a TREU for which an Authority to Construct is required, the permitted source may continue to operate under an application shield, provided that all of the following conditions are met.

8.1.1 An application for the Routine Replacement or TREU has been submitted within seven calendar days of completing the construction or installation of the routine or temporary replacement.

8.1.2 The source operates in compliance with all applicable requirements of the federal, state, and District rules and regulations.

8.1.3 For a TREU, all of the following conditions must be met:

8.1.3.1 The TREU results in no increase in design capacity, unless a replacement unit of the same or lower design capacity is not available, in which case the replacement can result in a design capacity increase of up to 10%.

8.1.3.2 The TREU results in no change to the permitted throughput or emissions due to a change in the design capacity as part of the replacement.

8.1.3.3 The TREU performs the same function as the equipment being replaced.

8.1.3.4 The TREU either is addressed by a BARCT rule or is equipped with a control device capable of at least 85% emission control.

8.2 When the application has been deemed complete by the APCO, the application shield shall be made effective retroactive from the date of application submittal until the application is either approved or denied.

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- 8.2.1 The application shield is not applicable if the District's final action is delayed due to the failure of the applicant to submit timely information requested by the District. The source must also submit additional information for any requirements that become applicable after a complete application is submitted, but before a PTO is issued.
- 8.3 The application shield does not exempt the operator from any applicable requirements.
- 8.4 The application shield applies only to ~~an~~ applications for a Routine Replacements, and TREUs meeting the requirements of 8.1.3.1 through 8.1.3.4, and does not authorize any increases to the permitted throughput or emissions due to a change in design capacity as part of a Routine Replacement or a TREU.
- 8.5 For a TREU that is removed from the Stationary Source within seven calendar days of completing the installation of the TREU, the application requirements of Section 8.1.1 shall not apply, provided the permittee submits, within seven calendar days of completing the installation of the TREU, a report to the District demonstrating compliance with the requirements of Section 8.

## IV. PROTECT CALIFORNIA AIR ACT OF 2003 - SENATE BILL 288

California Health and Safety Code sections 42500 through 42507 (SB 288) mandates that a district's New Source Review (NSR) rules cannot be made less stringent, in a variety of specified areas, than the rules that existed on December 30, 2002. This legislation was crafted and signed into law specifically to prevent Districts from implementing any Federal NSR reforms that would have relaxed California's stringent NSR requirements.

The state Air Resources Board (ARB) has provided guidance on the implementation of SB 288 (California Air Resources Board Guidance, *New Source Review and Senate Bill 288* (August 2004, as amended April 2006)), and has concluded that there are four components of NSR that are affected by SB 288:

1. NSR applicability determinations;
2. The definitions of "modification", "major modification", "routine maintenance", and "repair or maintenance";
3. The calculation methodology, thresholds, or other procedures of new source review. ARB further interprets this to apply to baseline determinations, calculating emissions changes, offset amounts required, and major source and major modification thresholds; and

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4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets<sup>10</sup>.

Per the ARB Guidance, each of these four components apply on an individual source basis (except for offsets, as discussed in 4. above), as well as on a programmatic basis. The proposed amendments to District Rule 2201 do not include any changes to the applicability of the District's NSR requirements (except for lowering the PM2.5 Major Source threshold). Each of the proposed amendments to Rule 2201 will be evaluated below to determine if there could be a relaxation of the NSR requirements for these four components.

## A. Changing the Major Source Definition

District Rule 2201, Section 3.24 is being amended to revise the PM2.5 major source emission threshold from 200,000 pounds per year (100 tons per year) to 140,000 pounds per year (70 tons per year) as a result of reclassification to serious nonattainment for the 1997 and 2006 PM2.5 standards.

The following is an analysis of the SB 288 implications of this proposed change:

1. NSR applicability determinations are not relaxed:

Changing the Major Source definition to lower the PM2.5 major source threshold will result in more major sources of PM2.5 emissions compared to the current threshold. This proposed change will result in a more stringent requirement and will not relax the applicability of any NSR requirements.

2. The definitions of "modification", "major modification", "routine maintenance", and "repair or maintenance" are not relaxed:

Changing the Major Source definition will not change the definitions of "modification", "major modification", "routine maintenance", or "repair or maintenance". Therefore, this proposed change will not relax the definitions of "modification", "major modification", "routine maintenance", or "repair or maintenance".

3. The calculation methodology, thresholds, or other procedures of new source review are not relaxed:

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<sup>10</sup> While the District believes that this final component is an overly broad legal interpretation of the legislation, and inconsistent with the development and intent of the legislation, we believe the District's proposed amendments are complying with ARB's interpretation on this issue. However, we will reserve our right to challenge ARB on this issue at a later date, or if ARB uses this interpretation to contravene any of the District's proposed NSR amendments.

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The proposed change to the Major Source definition is to lower the PM<sub>2.5</sub> Major Source threshold, which will result in more major sources of PM<sub>2.5</sub> emissions and will more frequently trigger the various NSR requirements related to PM<sub>2.5</sub> major sources, resulting in a more stringent rule without relaxation of any requirements.

An analysis of the BACT, offsets, and public notification requirements of Rule 2201 is provided below:

a. Requirements for BACT are not relaxed:

Rule 2201, Section 4.1 requires BACT for any increase over 2.0 lb/day and for any SB 288 Major Modification or Federal Major Modification.

Lowering the PM<sub>2.5</sub> major source threshold will not relax these BACT thresholds.

b. Requirements for offsets are not relaxed:

Rule 2201, Section 4.5 requires emission offsets to mitigate new or increased emissions above specific thresholds and any emission increase for stationary sources which already exceed the offset thresholds.

Lowering the PM<sub>2.5</sub> major source threshold will not relax any offset thresholds or any calculation methods for determining offset requirements. PM<sub>2.5</sub> offsets will now be required for new sources at 70 tons per year rather than 100 tons per year due to the new Major Source threshold.

c. Requirements for public notice are not relaxed:

Public Noticing is required for significant new or modified sources of emissions. Rule 2201, Section 5.4 lists the five thresholds which, if exceeded, will trigger a public notification.

Lowering the PM<sub>2.5</sub> major source threshold will not relax any public notice thresholds. In fact, with more major sources of PM<sub>2.5</sub> emissions, more projects may be subject to public notification requirements by virtue of more projects being Federal Major Modifications.

4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets, are not relaxed:

The proposed change to the Major Source definition lowers the PM<sub>2.5</sub> Major Source threshold, which will strengthen NSR requirements. This proposed change will not relax the requirement to obtain offsets, on a project specific or program wide basis. Instead, the rule revisions will require additional offsets as more PM<sub>2.5</sub>

major sources will now have to provide offsets. Therefore, this proposed change is not a relaxation of any definition or requirements of NSR regulations or the requirement to obtain offsets.

This proposed change will result in the strengthening of certain NSR requirements since the proposed 70 tons per year PM<sub>2.5</sub> Major Source threshold is more stringent than the current 100 tons per year threshold. This proposed change will not relax any NSR requirements and will not be a relaxation under SB 288.

**B. Clarifying the PM<sub>2.5</sub> Definition**

District Rule 2201, Section 3.28 was originally being amended to include the definition of Particulate Matter from District Rule 1020 to address CAA requirements for PM<sub>2.5</sub> and clarify that PM<sub>2.5</sub> includes the condensable portion of particle pollution. However, based on EPA comments, the District has revised the proposed definition to make it consistent with EPA's published definition of PM<sub>2.5</sub>. Since this proposed amendment is to make it consistent with EPA's published definition of PM<sub>2.5</sub> and clarify that PM<sub>2.5</sub> includes the condensable portion of particle pollution, this proposed change will not relax any existing NSR requirements and will not be a relaxation under SB 288.

**C. Clarifying Offset Tracking System requirements**

District Rule 2201, Section 7.1.1 is being amended to, address EPA comments and clarify some of the federally required offsets that must be tracked pursuant to 40 CFR 51.165. The District currently implements the Offset Tracking System exactly as EPA has specified in their comments and the proposed amendments simply clarify those requirements. Therefore, this proposed change will not relax any existing NSR requirements and will not be a relaxation under SB 288.

**D. Adding Application Shield for Temporary Replacement Emissions Units**

The proposed amendments to District Rule 2201, Section 8 are to allow certain types of Temporary Replacement Emission Units (TREUs), as discussed previously, to utilize the application shield that Section 8 offers to Routine Replacements.

The following is an analysis of the SB 288 implications of this proposed change:

1. NSR applicability determinations are not relaxed:

Including certain TREUs in the Section 8 application shield is not a relaxation to an NSR applicability determination. TREUs will continue to be subject to all the same NSR requirements to which TREUs are currently subject. As noted above, the proposed application shield addresses the nonsensical situation that allowed a permanent replacement to proceed without an application while requiring TREUs, often required to address emergency breakdowns or malfunction situations, to

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obtain a permit before installation. Also note that, for a source to take advantage of the application shield in Section 8, a TREU must meet all the same requirements as a Routine Replacement.

2. The definitions of “modification”, “major modification”, “routine maintenance”, and “repair or maintenance” are not relaxed:

The proposed changes to Section 8 will not change the definitions of “modification”, “major modification”, “routine maintenance”, or “repair or maintenance”. Therefore, this proposed change will not relax the definitions of “modification”, “major modification”, “routine maintenance”, or “repair or maintenance”.

3. The calculation methodology, thresholds, or other procedures of new source review are not relaxed:

The sole purpose of the application shield is to allow a source to voluntarily complete the installation of a Routine Replacement, or certain TREUs, without first submitting the required Authority to Construct (ATC) permit application. The application shield does not relieve the source from complying with all other applicable requirements of the District’s NSR program.

For those TREUs removed within 7 days of installation, the required submission of the report demonstrating compliance with the requirements of Section 8 serves as the functional equivalent to an Authority to Construct, while removing unnecessary paperwork from the process. Permittees violating any of the application shield requirements of Section 8 lose the application shield and will be subject to enforcement action and full compliance with NSR requirements of Rule 2201. Therefore, the proposed changes to Section 8 will not relax any NSR requirements.

An analysis of the BACT, offsets, and public notification requirements of Rule 2201 is provided below:

1. Requirements for BACT are not relaxed:

Rule 2201, Section 4.1 requires BACT for any increase over 2.0 lb/day and for any SB 288 Major Modification or Federal Major Modification.

TREUs are currently exempt from BACT per Section 4.2.5, and the proposed changes to Section 8 will not change the existing exemption.

2. Requirements for offsets are not relaxed:

Rule 2201, Section 4.5 requires emission offsets to mitigate new or increased emissions above specific thresholds and any emission increase for stationary sources which already exceed the offset thresholds.

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TREUs are currently exempt from offsets per Section 4.6.5, and the proposed changes to Section 8 will not change the existing exemption.

3. Requirements for public notice are not relaxed:

Public Noticing is required for significant new or modified sources of emissions. Rule 2201, Section 5.4 lists the five thresholds over which a project will trigger a public notification if exceeded.

As a TREU cannot operate at the same time as, and cannot result in greater emissions than the unit being replaced, like a Routine Replacement, a TREU does not trigger the public notification requirements of Rule 2201. Since the requirements for a TREU will not be changed with this proposed rulemaking action, there will be no relaxation to the public notification requirements as a result of this proposed change.

4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets, are not relaxed:

This proposed change will not affect the requirement to obtain offsets since TREUs are exempt from offsets. Therefore, this proposed change is not a relaxation of any definition or requirements of NSR regulations or the requirement to obtain offsets on a project specific or program wide basis.

As outlined above, this proposed change will only serve to include in the Section 8 application shield a TREU that would meet all the same requirements as a Routine Replacement. A TREU that qualifies for the application shield will be subject to all applicable NSR requirements that a TREU is currently subject to; therefore, this proposed change will not relax any NSR requirements and will not be a relaxation under SB 288.

## **E. Removing the CO Nonattainment Area Offset Threshold**

As discussed previously, all areas of the Valley were classified as attainment for the CO ambient air quality standard in 1998. Therefore, the CO nonattainment area offset threshold in Rule 2201 has not been relevant for the past 17 years. The proposed amendments to District Rule 2201, Section 4.5.3 (Table 4-1) consist of removing the offset threshold for CO in nonattainment areas, and specifying that the existing offset threshold for CO in attainment areas applies throughout the Valley.

The following is an analysis of the SB 288 implications of this proposed change:

1. NSR applicability determinations are not relaxed:

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Removing the CO (nonattainment areas) offset threshold will result in no changes to the offset requirements because there are no CO nonattainment areas in the Valley, and therefore, no offset requirements have been or will be triggered in the San Joaquin Valley for CO nonattainment areas. Also note that the entire Valley was designated as attainment for CO in 1998, well before the SB 288 NSR Rule comparison date of December 30, 2002. Therefore, removing the CO (nonattainment areas) offset threshold will not relax any applicable requirements of the District's NSR program.

2. The definitions of "modification", "major modification", "routine maintenance", and "repair or maintenance" are not relaxed:

Removing the CO (nonattainment areas) offset threshold will not change the definitions of "modification", "major modification", "routine maintenance", or "repair or maintenance". Therefore, this proposed change will not relax the definitions of "modification", "major modification", "routine maintenance", or "repair or maintenance".

3. The calculation methodology, thresholds, or other procedures of new source review are not relaxed. An analysis of the BACT, offsets, and public notification requirements of Rule 2201 is provided below:

- a. Requirements for BACT are not relaxed:

Rule 2201, Section 4.1 requires BACT for any increase over 2.0 lb/day and for any SB 288 Major Modification or Federal Major Modification.

This change is to remove an existing, irrelevant offset threshold. It will not change the existing BACT thresholds or requirements.

- b. Requirements for offsets are not relaxed:

Rule 2201, Section 4.5 requires emission offsets to mitigate new or increased emissions above specific thresholds and any emission increase for stationary sources which already exceed the offset thresholds.

Removing the CO (nonattainment areas) offset threshold will result in no changes to the offset requirements because there are no CO nonattainment areas in the Valley, and therefore, no offset requirements have been or will be triggered in the San Joaquin Valley for CO nonattainment areas. Also note that the entire Valley was designated as attainment for CO in 1998, well before the SB 288 NSR Rule comparison date of December 30, 2002. Therefore, removing the CO (nonattainment areas) offset threshold will not relax any applicable offset requirements of the District's NSR program.

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c. Requirements for public notice are not relaxed:

Public Noticing is required for significant new or modified sources of emissions. Rule 2201, Section 5.4 lists the five thresholds over which a project will trigger a public notification if exceeded.

Public notification requirements are triggered at various thresholds. For instance, public notification is required when an existing source proposes a modification that increases their allowed emissions from below to above an offset threshold or when a new source proposes emissions above an offset threshold. Removing the CO (nonattainment areas) offset threshold will result in no changes to the public noticing requirements because there are no CO nonattainment areas in the Valley, and therefore, no public noticing requirements have been or will be triggered in the San Joaquin Valley for CO nonattainment areas. Also note that the entire Valley was designated as attainment for CO in 1998, well before the SB 288 NSR Rule comparison date of December 30, 2002. Therefore, removing the CO (nonattainment areas) offset threshold will not relax any applicable public noticing requirements of the District's NSR program.

4. The definitions and requirements of NSR regulations, including, on a program-wide basis, the requirement to obtain offsets, are not relaxed:

Removing the CO (nonattainment areas) offset threshold will result in no changes to the offset requirements because there are no CO nonattainment areas in the Valley, and therefore, no offset requirements have been or will be triggered in the San Joaquin Valley for CO nonattainment areas. Also note that the entire Valley was designated as attainment for CO in 1998, well before the SB 288 NSR Rule comparison date of December 30, 2002. Therefore, removing the CO (nonattainment areas) offset threshold will not relax any applicable project specific or program wide offset requirements of the District's NSR program.

Since this proposed amendment is to remove an irrelevant provision that cannot apply to any source, this proposed action will not relax existing NSR requirements and will not be a relaxation under SB 288.

## V. RULE DEVELOPMENT PROCESS

EPA's Final Rule requires states to submit an approvable NSR program for the PM<sub>2.5</sub> standard within 12 months after reclassification as serious nonattainment. Thus, for this requirement, EPA mandates that our NSR program needs to be submitted to EPA for inclusion into the SIP before May 7, 2016 (80 FR 18528).

### A. Public Workshop

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District staff hosted a public workshop on November 10, 2015 and the draft proposed amendments to the rule were presented at the public workshop in the form of a power point presentation. The focus of the public workshop was to present the proposed amendments to the rule and to solicit public feedback. At the public workshop, District staff presented the objectives of the rule-amending project, explained the District's rule development process for this project, solicited feedback from affected stakeholders, and informed all interested parties of the comment period and project milestones. The public workshop was held via video teleconferencing in all three District offices and was also live-streamed using the webcast.

The Draft Staff Report and Draft Rule were made available on the District's website prior to the public workshop, and a three week comment period followed the public workshop. Comments received during the public workshop or during the three week comment period that followed the public workshop are addressed in Appendix A of this staff report. None of the comments resulted in significant changes to the proposed rule. As such, it was also determined that there is no need to hold a future workshop.

## **B. Public Hearing**

In accordance with California Health and Safety Code (CH&SC) Section 40725, the proposed amendments to Rule 2201 and the final draft staff report were publicly noticed and made available prior to the January 21, 2016 Governing Board public hearing to consider adoption of the proposed rule amendments. The public was invited to provide comments to District Governing Board members during the public hearing. At the public hearing the Governing Board approved the revised rule, but postponed the final adoption of the rule to provide opportunity for public comment until the next regularly scheduled Governing Board public hearing meeting, on February 18, 2016.

Because changes were made to the rule as a result of EPA's comments, the public is again invited to provide comments to the District Governing Board at the public hearing on February 18, 2016. Upon adoption, Rule 2201 will be forwarded to ARB which will forward to EPA for inclusion into the SIP.

## **VI. COST EFFECTIVENESS AND SOCIOECONOMIC IMPACT ANALYSIS**

Pursuant to CH&SC Section 40920.6(a), the District is required to analyze the cost effectiveness of new rules or rule amendments that implement Best Available Retrofit Control Technology (BARCT). The proposed amendments do not add BARCT requirements and therefore are not subject to the cost effectiveness analysis mandate.

Additionally, CH&SC Section 40728.5 (a) requires the District to analyze the socioeconomic impacts of any proposed rule amendment that significantly affects air quality or strengthens an emission limitation. The draft amendments will have neither

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effect; therefore, the draft amendments are not subject to the socioeconomic analysis mandate

## VII. RULE CONSISTENCY ANALYSIS

Pursuant to CH&SC Section 40727.2(g) a rule consistency analysis of the proposed rule is required if the proposed rule strengthens emission limits or imposes more stringent monitoring, reporting, or recordkeeping requirements. The proposed rule does not strengthen emission limits or impose more stringent monitoring, reporting, or recordkeeping requirements; therefore, a rule consistency analysis is not required.

## VIII. ENVIRONMENTAL ASSESSMENT

The purpose of this rule-amending project is to add the federal PM<sub>2.5</sub> new source review requirements under subpart 4 of the CAA. The proposed amendments include expanding the PM<sub>2.5</sub> definition to clarify that PM<sub>2.5</sub> includes condensable particulate pollution, addressing PM<sub>2.5</sub> precursor pollutant applicability, and revising the PM<sub>2.5</sub> major source emission threshold from 100 TPY to 70 TPY. Further, the proposed amendments include removing the CO (nonattainment area) offset threshold, clarifying offset tracking system requirements, and including certain categories of Temporary Replacement Emissions Units (TREUs) to the application shield provisions of the Rule.

According to the California Environmental Quality Act (CEQA) statutes and pursuant to Section 15061 of the CEQA Guidelines, the District investigated the possible environmental impacts of the amendments to Rule 2201. Based on the District's investigation and lack of evidence to the contrary, the District has concluded that the rule amendments will not have any significant adverse effects on the environment. As such, the rule amendments are exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061 (b)(3)). Therefore pursuant to Section 15062 of the CEQA Guidelines, Staff will file a Notice of Exemption upon Governing Board approval of amendments to Rule 2201.

**APPENDIX A**

**Summary of Significant Comments and Responses  
For Amendments to Rule 2201**

**February 18, 2016**

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## SUMMARY OF SIGNIFICANT COMMENTS RULE 2201 (NEW AND MODIFIED STATIONARY SOURCE REVIEW RULE)

The San Joaquin Valley Unified Air Pollution Control District (District) held a public workshop to present, discuss, and hear comments on the draft amendments to Rule 4905 and draft staff report on October 16, 2014. Summaries of significant comments received since the public workshop are summarized below.

### EPA REGION IX COMMENTS:

**COMMENT:** EPA believes that the proposed definition of PM<sub>2.5</sub> is problematic because it suggests that only materials that are a liquid or solid at standard conditions AND are less than 2.5 microns while in this state, are included in the definition. Instead all of the gaseous emissions that condense at ambient conditions are included.

EPA's proposed changes are as follows:

- 3.28 PM<sub>2.5</sub>: particulate matter, ~~including any material except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions,~~ with an aerodynamic diameter smaller than or equal to a nominal 2.5 microns, including gaseous emissions which condense to form particulate matter at ambient temperatures.

**RESPONSE:** The District has incorporated EPA's comment, so as to make the PM<sub>2.5</sub> definition consistent with EPA's published definition of PM<sub>2.5</sub>. It should be noted that this change has no impact on applicability of PM<sub>2.5</sub> requirements nor does it impact the methods used to measure PM<sub>2.5</sub> for the purposes of demonstrating compliance with Rule 2201 requirements: gaseous emissions that condense to form particulate matter at ambient temperatures were already included in the District's proposed definition, as they are, at those conditions, no longer gaseous and become "a liquid or solid".

Revised rule language will read as follows:

- 3.28 PM<sub>2.5</sub>: particulate matter with an aerodynamic diameter smaller than or equal to a nominal 2.5 microns, including gaseous emissions which condense to form particulate matter at ambient temperatures.

**COMMENT:** EPA proposed new language to Section 7.1.1 of the rule, to clarify some of the federally required offsets that must be tracked pursuant to 40 CFR 51.165, and Title I part D of the Clean Air Act (CAA).

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EPA's proposed changes are as follows:

- 7.1.1 The quantity of offsets that would have been required for new major sources and federal major modifications in the District had the federal new source review requirements, codified in 40 CFR 51.165, and Title I part D of the Clean Air Act (CAA), been applied to these sources. These requirements include offsetting the full emissions increase from new and modified major sources, using actual emissions baselines when required under 40 CFR 51.165, offsets required for Highly-Utilized, Fully-Offset and Clean Emission Units, and providing offsets necessary to meet the CAA offset ratio requirements and provide a net air quality benefit.

**RESPONSE:** The District currently implements the Offset Tracking System exactly as EPA has specified in their comments. We believe the addition of the words “increase” and “and modified” are appropriate clarifications. However, we believe that adding the phrase “offsets required for Highly Utilized, Fully Offset and Clean Emissions Units” is unnecessary and redundant with the sentence in which EPA asks that it be inserted. Specifically, the requirement that the District demonstrate equivalency with federal offsetting requirements and 40 CFR 51.165 already fully addresses EPA's intent that the District include in all such demonstrations any situations in which the Highly Utilized, Fully Offset and Clean Emissions Units provisions were utilize. In other words, Section 7.1 already includes all applicable requirements under 40 CFR 51.165 as validated with EPA's approval of the rule on 9/17/2014<sup>1</sup>.

Revised rule language will read as follows:

- 7.1.1 The quantity of offsets that would have been required for new major sources and federal major modifications in the District had the federal new source review requirements, codified in 40 CFR 51.165, and Title I part D of the Clean Air Act (CAA), been applied to these sources. These requirements include offsetting the full emissions increase from new and modified major sources, using actual emissions baselines when required under 40 CFR 51.165, and providing offsets necessary to meet the CAA offset ratio requirements and provide a net air quality benefit.

**COMMENT:** EPA believes that Section 8.0 of Rule 2201 is not consistent with 40 CFR 51.160(b) of the Clean Air Act, as they believe that the District would not have the opportunity to deny a Routine Replacement or a TREU (as the proposed rule amendments include) if the source utilized the Application Shield allowed under Section 8.0 and the change resulted in a violation of the Act or a NAAQS.

<sup>1</sup> <https://www.gpo.gov/fdsys/pkg/FR-2014-09-17/pdf/2014-22019.pdf>

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Additionally, EPA has compared the proposed amendments to Section 8.0 of Rule 2201 to proposed amendments submitted by Clark County, Nevada for their local New Source Review Rule that included a “notice and go” provision, which would have allowed a source to notify the agency of a proposed action, and then to implement it after a stated timeframe, with no action required by the agency. EPA further references comments made several years ago regarding the Clark County proposal. EPA provided the following excerpt from EPA’s comments to Clark County:

*The triggering of a new applicable requirement should always require review by (the permitting authority) to assure all necessary terms and conditions are included to ensure compliance.*

*Our second concern is one of enforcement. It is not clear what would happen and what the enforcement liability would be for a source if they began construction after the seven day period*

*Ultimately, to be approvable under 40 CFR part 51, the program must contain “legally enforceable procedures that enable the State or local agency to determine whether the construction or modification of [the source/project] will result in (1) A violation of applicable portions of the control strategy; or (2) Interference with attainment or maintenance of a [NAAQS]...” The program must also enable the permitting agency to “prevent construction” when it determines that either of these will occur. 40 CFR 51.160(b)*

**RESPONSE:** First, it’s important to point out that Section 8.0 of Rule 2201 has been in the rule for over a decade and has been repeatedly approved by EPA into the State Implementation Plan during that timeframe, most recently in 2014. The proposed amendments are only adding an allowance for Temporary Replacement Emission Units to use the longstanding application shield that has historically only applied to non-temporary routine replacements. We are not creating a new application shield section; we are only expanding the existing section that applies to permanent replacements so that it equally applies to temporary replacements. There should be no question about the appropriateness of the original SIP-approved language.

Second, the regulation cited by EPA, 40 CFR 51.160(b), requires that an agency have the “*means...to prevent...construction or modification if – (1) it will result in a violation of applicable portions of the (SIP) control strategy; or (2) it will interfere with the attainment or maintenance of a national standard.*”

EPA expressed the belief that a pre-construction permit must be issued to comply with this section, and in general, the District does require pre-construction permits before allowing installation of emitting equipment. However, in this limited case of allowing replacement equipment with no increase in emissions and no increase in capacity, the District’s analysis concludes that, if the requirements of Section 8 of

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the rule are complied with, taking advantage of the 7-day application shield cannot result in violation of the SIP or interference with attainment or maintenance of any standard. Therefore, the proposed rule itself contains the appropriate conditional language to prevent such construction or modification.

Next, the rule requires permit applications or other information to be filed with the District within 7 days of construction that fully justifies the permittee's use of the application shield to replace equipment. If such information is not provided, or is does not justify the use of the application shield, the District will take appropriate enforcement action. The permitting action is delayed, but not avoided. In the one special case in which a temporary replacement is removed prior to the 7-day permit application deadline, all appropriate information must be submitted within the same 7-day timeline, and compliance with the section 8 application shield requirements will be determined by the District.

So, these requirements are "legally enforceable" and do allow the District to determine, in advance (through the conditions of approval that are contained in the rule), whether the construction or modification will result in violations of control strategies or interfere with attainment or maintenance of a NAAQS. We have determined, in advance, that such projects will NOT result in violations of control strategies or interfere with attainment or maintenance of a NAAQS. And it is illegal for construction to proceed if those enforceable requirements are not met, so this "prevents construction" of any proposal that doesn't meet those requirements.

In fact, enforcement would be handled exactly as any other violation of the CAA. If a permittee improperly claims the application shield, the District would treat it as construction without a required permit, and would take enforcement action accordingly. Any use of the application shield is fully examined via the District's review of the subsequent permit application (or report, if a temporary replacement has already been removed prior to the application deadline). This assures that any violations are uncovered and that any appropriate enforcement ensues.

The San Joaquin Valley Air District recognizes the realities of the business world that sometimes require very quick action to avoid economic catastrophes. This section applies only to a specific subset of those urgent business scenarios in a way that provides important relief from lengthy permitting timelines, without allowing an increase in emissions or a change a facility's capacity, but without avoiding a full permit review and compliance analysis. Given that this effort at common sense governance cannot result in increases in emissions or any sidestepping of clean air requirements, we believe EPA should approve of the addition of Temporary Replacement Emission Units to this longstanding, SIP-approved, application shield that has historically only applied to non-temporary routine replacements.

**COMMENT:** EPA submitted additional verbal comments in early January 2016, specifically that the Routine Replacement Application Shield of Section 8 was not

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permissible for NO<sub>x</sub> and VOC permitting actions, because the Valley's "extreme" nonattainment designation prevents it from using the "netting" provisions in federal NSR calculations for increases in emissions.

**RESPONSE:** First, the District fully recognizes that extreme nonattainment areas for ozone cannot use the netting provisions of the Clean Air Act to determine whether projects are major modifications for ozone precursors. However, replacements are recognized by the federal Clean Air Act and EPA implementing regulations published in title 40, part 51 of the Code of Federal Regulations as "existing units". In other words, EPA regulations treat a replacement as a modification of the unit being replaced. Therefore, there is no netting used in any District calculations related to Section 8, as it applies only to replacements.

In fact, no replacement project that takes advantage of the Section 8 application shield can possibly be a major project. Section 8 projects are limited to those that do not increase emissions or capacity, and because modifications to existing units use the "actual-to-future-projected-actual" emissions increase calculation methodology, the emissions increase calculated will always be zero. Therefore, such projects can never be major projects.

**COMMENT:** EPA also expressed concern during subsequent verbal conversations that "routine replacements" that are exactly the same as the unit being replaced (except for serial number) cannot be exempted from the definition of "modification", as is currently the case in section 3.35 of District Rule 2201. EPA commented that the "WEPCO" court case forbid such an exemption. EPA extends this same concern to the application shield of Section 8, specifically, that the shield should not be available to major modifications. Finally, EPA recommends, due to potential conflicts with EPA definitions of "Routine Replacements," that we change our rule's term from "Routine Replacement" to "Replacement Emissions Unit."

**RESPONSE:** Addressing the final issue first, the change in definition title from "Routine Replacement" to "Replacement Emissions Unit" does not impact the rule's applicability or requirements in any way, and so the District has proposed to implement EPA's suggestion, and changed the term appropriately throughout the rule.

The District believes that the current definition addresses all concerns of the WEPCO case, most notably that the replacements cannot increase emissions or capacity (and secondarily, that the replacement cannot constitute a "reconstructed source", among other requirements). However, as noted in the response above, we agree that federal requirements do not allow major modifications to take advantage of the modification exemption of section 3.35 and the application shield of section 8. Therefore, we have agreed to EPA's request to codify these federal requirements by adding rule language to specifically prohibit federal major modifications from being exempted from the definition of "modification" and from using the replacement

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unit application shield. The newly proposed language is underlined in the following sections:

3.35 ~~Routine~~-Replacement Emissions Unit: ~~routine~~ replacement in whole or in part of any article, machine, equipment, or other contrivance with a valid District Permit to Operate provided that all of the following conditions are met:

3.35.1 There is no increase in permitted emissions from the replacement unit(s). For replacements at major sources, “no increase in permitted emissions” as used in this definition also means no significant emissions increase according to the applicability calculations of 40 CFR 51.165(a)(2)(ii)(C). For the purposes of this definition, a Replacement Emissions Unit is an existing emissions unit.

8.5 For replacements at major sources, the application shield applies only to Replacement Emissions Units that result in no significant emissions increase according to the applicability calculations of 40 CFR 51.165(a)(2)(ii)(C), “Actual-to-projected actual applicability test for projects that only involve existing emissions units”. For the purposes of this section, a Replacement Emissions Unit is an existing emissions unit. A copy of the emission calculations used to determine that the Replacement Emissions Unit did not result in a significant emissions increase must be included with the application required by Section 8.1.1.

These changes were reviewed with EPA, and EPA expressed no remaining concerns.

## ARB COMMENTS:

No comments were received from ARB.

## PUBLIC COMMENTS:

Comments were received from the following:

Manufacturers Council of the Central Valley (MCCV)  
California Construction & Industrial Materials Association (CalCIMA)

**COMMENT:** The Draft Report includes several pages discussing PM2.5 precursors showing certain pollutants as not being significant PM2.5 precursors. Upon review, we did not see the information in this analysis reflected in the language used in the draft Rule.

To avoid misinterpretations, please consider adding clarification on this point, for example, adding the word “significant” before the word “precursors” in line three of Section 3.4 of the Rule. (MCCV)

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**RESPONSE:** The term “significant” as it is used in the staff report is not an official Clean Air Act term. Rather, it is merely a convenient shorthand way to reference the importance of the contribution of the precursor to the nonattainment status in the District. In addition, it would not be appropriate to add the term “significant” to the rule language because while a pollutant may not be a significant contributor to one ambient air quality standard it may be significant for another air quality standard, as explained in the staff report. Therefore, the rule proposed for adoption by District staff does not incorporate the proposed changes.

**COMMENT:** While the association had no comments on the proposed amendments to Rule 2201, they did propose changes to existing sections (3.25 “Modification” and 3.35 “Routine Replacement”) “to facilitate positive changes to facilities without longer review times.” Their proposed changes are as follows:

- 3.25.3.4 Routine replacement of a whole or partial emissions unit where the replacement part does not result in a net emissions increase. is the same as the original emissions unit in all respects except for the serial number.
- 3.35.2 There is no increase in design capacity, unless an old part is no longer available, or the replacement results in a reduction of greenhouse gases, in which case the replacement can result in a design capacity increase of up to 10%. No change to the permitted throughput or emissions is authorized due to a change in design capacity as part of routine replacement. Such changes shall require application for permit modification. (CalCIMA)

**RESPONSE:** Proposed revisions in the above comment would constitute a potential relaxation of the rule and therefore may be illegal under SB 288, the “Protect California Air Act of 2003”. In addition, greenhouse gas control requirements are not included in Rule 2201, the District’s criteria pollutant New Source Review rule. In fact, the District’s longstanding policy is to avoid allowing or encouraging situations that would trade greenhouse gas emissions reductions for potential criteria pollutant increases. Such situations have the potential to create local criteria or toxic pollutant hotspots, and may exacerbate the difficult attainment challenges faced in the San Joaquin Valley. Therefore, the rule proposed for adoption by District staff does not incorporate the proposed changes.