

# San Joaquin Valley Unified Air Pollution Control District

## Procedures for implementing PM2.5 offset requirements of Rule 2201 (as amended on 4/21/11)

Approved By: \_\_\_\_\_ Date: \_\_\_\_\_  
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### I. Purpose

This policy is intended to provide guidance for facilities that are required to provide PM2.5 emission offsets pursuant to Rule 2201 (as amended on 4/21/11) and for facilities that submit emission reduction credit (ERC) applications for PM2.5 emission reductions.

Please note that this policy does not address Rule 2201 requirements for facilities required to provide PM10 emission offsets.

### II. Background

The 4/21/11 amendments to Rule 2201 incorporated provisions that incorporated non-attainment new source review requirements for new major sources and Federal major modifications of PM2.5 emissions and its precursors.

Pursuant to Rule 2201 section 3.24 the PM2.5 major source threshold is 200,000 lb/year.

Pursuant to Rule 2201 section 3.18 the PM2.5 Federal major modification thresholds are:

Directly emitted PM2.5:	20,000 lb/year
Sulfur Dioxide (a PM2.5 precursor):	80,000 lb/year
Nitrogen Oxides (a PM2.5 precursor)	80,000 lb/year

Rule 2201 section 4.5.4 states that emission increases greater than the above thresholds are required to provide emission offsets. Additionally, section 4.8.2 states that the distance offset ratio for PM2.5 and PM2.5 precursors is 1:1.

Please note that offsets are only required for PM<sub>2.5</sub> emission increases for new major sources and Federal major modifications of PM<sub>2.5</sub>. Emission increases of PM<sub>2.5</sub> that do not constitute a new major source or a Federal major modification are not required to provide PM<sub>2.5</sub> emission offsets.

Rule 2201 section 4.5.3 table 4-1 includes offset thresholds for SO<sub>x</sub> and NO<sub>x</sub> at lower thresholds, i.e. stationary source potential to emit of 54,750 lb/year for SO<sub>x</sub> and 20,000 lb/year for NO<sub>x</sub>, than the Federal major modification thresholds listed in section 3.18. Additionally, Rule 2201 specifies distance offset ratios for SO<sub>x</sub> and NO<sub>x</sub> in Rule 2201 section 4.8.1 and section 4.8.3 Table 4-2. These distance offset ratios vary between 1:1 and 1.5:1.

As the distance offset ratios listed in Rule 2201 section 4.8.1 and section 4.8.3 Table 4-2. are equal to or higher than the distance offset ratios listed in section 4.8.2, the appropriate distance offset ratios in sections 4.8.1 and 4.8.3 table 4-2 shall be used.

Because the requirement to provide SO<sub>x</sub> and NO<sub>x</sub> emission offsets is not a new requirement it will not be discussed further in this policy, except concerning use of SO<sub>x</sub> and Nox as interpolating offsets for PM<sub>2.5</sub> emission increases.

Offsets provided must meet the requirements of Rule 2301, including the requirement to be surplus of all requirements at the time of ERC issuance. Such offsets are not required to be surplus at the time of use, i.e. date the ATC is issued that requires offsets.

### **III. Procedures for facilities required to provide PM<sub>2.5</sub> offsets**

Facilities that are required to provide PM<sub>2.5</sub> emission offsets may provide direct PM<sub>2.5</sub> emission offsets or provide interpollutant , i.e. SO<sub>x</sub> and NO<sub>x</sub>.

#### **A. Direct PM<sub>2.5</sub> emission offsets**

Facilities that are required to provide PM<sub>2.5</sub> emission offsets can utilize the portion of existing PM<sub>10</sub> emission reduction Credits (ERCs) that are PM<sub>2.5</sub> to satisfy the offset requirement. Most PM<sub>10</sub> ERCs will include a fraction that is PM<sub>2.5</sub> .

The quantity of PM<sub>2.5</sub> offsets available from any particular PM<sub>10</sub> ERC will be determined on a case by case basis. This determination will be based on data available to speciate the portion of PM<sub>10</sub> emission reductions represented by the ERCs that are PM<sub>2.5</sub>.

Sources available to obtain PM<sub>2.5</sub> speciation information include, but are not limited to:

- PM<sub>2.5</sub> source test data from the specific emission point
- Manufacturer's information for the emissions point
- PM<sub>2.5</sub> Source test data at similar emission point

- Speciation data from EPA (see <http://www.epa.gov/ttn/chief/ap42/appendix/appb-2.pdf>).
- Speciation data from CARB (see <http://www.arb.ca.gov/ei/speciate/pmsizeprofile07282009.xls>)

The portion of the PM10 ERC that is PM2.5 is the amount available to provide PM2.5 offsets.

The remaining portion of the PM10 ERC will be reissued and will include a notation of the percentage of PM2.5 in the remaining PM10 ERC for each calendar quarter. Such PM10 ERCs may be used to provide PM10 emission offsets for PM10 emission increases.

#### B. Interpollutant offsets for PM2.5

Rule 2201 section 3.19 identifies SO<sub>x</sub> and NO<sub>x</sub> as precursors to PM2.5. Additionally, Rule 2201 section 4.13 includes provisions to allow interpollutant offsets between PM2.5 emissions and PM2.5 precursors, i.e. SO<sub>x</sub> and NO<sub>x</sub>.

The applicable interpollutant ratios are those established by EPA or as approved into the State Implementation Plan (SIP) as part of updates to the District's PM2.5 attainment plan.

Interpollutant ratios established by EPA are SO<sub>x</sub> for PM2.5 of 40:1 and NO<sub>x</sub> for PM2.5 of 100:1. As of early 2011, the PM2.5 attainment plan does not include interpollutant ratios. Therefore, until the SIP is revised to include alternative interpollutant ratios, the interpollutant ratios established by EPA shall be used.

This policy will be updated when such ratios are included in the PM2.5 attainment plan and approved into the SIP.

#### IV. Procedures for facilities to receive ERCs for PM2.5 emission reductions

Facilities that generate PM10 and PM2.5 emission reductions can bank such reductions pursuant to the requirements of Rule 2301 Emission Reduction Credit Banking. Such emission reductions shall be banked PM10 emission reductions with a notation of the percentage that is PM2.5 for each calendar quarter. The amount of such PM10 emission reductions that are PM2.5 shall be available as PM2.5 emission offsets.

PM10 ERCs that are issued with a percentage that is PM2.5 will be identified in the District's ERC registry with the total amount (lb/qtr) that is PM10 and the amount (lb/qtr) that is PM2.5.

Please note that most PM10 ERCs currently listed in the District's ERC registry will not have the PM2.5 quantity specified in the registry and will be noted as such in the registry.

The PM2.5 quantity of a specific ERC will only be determined if an ERC owner utilizes a portion of a PM10 ERC to provide PM2.5 emission offsets. At such time remaining PM10 ERC will specify the amount of the ERC that is PM2.5. The PM2.5 quantities available from the specific ERC will be listed in the ERC registry.

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