



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

**EMISSION OFFSET PROGRAM
FEDERAL EQUIVALENCE DEMONSTRATION**

Regulation 2-2-423

2017 Report for Years 2014, 2015 and 2016

Prepared by:

Greg Stone, Supervising Air Quality Engineer

Reviewed by:

Pamela Leong, Air Quality Engineering Manager

Summary

This is the 2017 annual offset equivalence report required by Regulation 2-2-412. This report covers calendar years 2014, 2015 and 2016. The Bay Area Air Quality Management District's (District) emissions offset program¹ is shown by this report to be at least equivalent to federal offset requirements.

Federal offsets are required from new major facilities² and major modifications at major facilities³ for all non-attainment pollutants. As part of the District's New Source Review (NSR) program, emission offsets are required from both major and non-major facilities and modifications.

The District did not issue a Permit to Operate (P/O) for a new major facility or major modification of a major facility during this reporting period.

Background

Federal guidelines require Emission Reduction Credits (ERCs) to be real, permanent, quantifiable, enforceable, and surplus. To be surplus, ERCs are adjusted according to the following:

- A District rule that is required for federal attainment demonstration purposes;
- A District rule that has been approved into the State Implementation Plan (SIP);
- New Source Performance Standard (NSPS); and
- Maximum Achievable Control Technology (MACT) Standard⁴

The U.S. EPA recognizes that under the District program, ERCs generated at time of banking meet these federal guidelines. Since the District program does not adjust ERCs again at the time of use, EPA guidelines allow an alternative demonstration of offset equivalence. Pursuant to Regulation 2-2-412⁵, the District is required to make an annual demonstration that the quantity of offsets provided for all new or modified sources, less adjustments to those offsets for federal purposes, exceed the quantity of offsets required under federal law for new major facilities and major modifications at major facilities.

District staff makes an annual demonstration, with a 3-year look back, that the District's emission offsets program exceeds federal offset requirements for non-attainment pollutants

¹ Regulation 2-2 as adopted on December 19, 2012 and approved by U.S. EPA as part of the State Implementation Program (SIP) on August 31, 2016 (81 FR 50339); and Regulation 2-4 as adopted on June 15, 1994 and approved by U.S. EPA as part of the State Implementation Program (SIP) on January 26, 1999 (64 FR 3850)

² For the purposes of this demonstration, a major facility is a facility that has the potential to emit 100 tons per year or more of POC, NO_x or PM_{2.5}, excluding fugitive emissions unless one of the 28 listed source categories in 40 CFR 51.165(a)(1)(iv)(A)(1) & 51.165(a)(1)(iv)(C).

³ For the purposes of this demonstration, a major modification of a major facility is a modification at an existing major facility that will have a net emission increase of 40 tons per year of POC or NO_x, or 10 TPY of PM_{2.5}. (Regulation 2-2-218).

⁴ National Emission Standards for Hazardous Air Pollutants (NESHAPS) require application of technology-based emissions standards referred to as Maximum Achievable Control Technology (MACT). Post-1990 NESHAPS are also referred to as MACT standards.

⁵ See Appendix A

from new major facilities and major modifications at major facilities. For the District, the applicable non-attainment pollutants are precursor organic compounds (POC), oxides of nitrogen (NO_x), and PM_{2.5} (effective Dec. 14, 2009).

For NO_x and POC, the District requires more facilities to obtain offsets than are required by federal law. Under federal law, offsets are required at a 1.15 to 1.0 ratio for a new major facility or a major modification at an existing major facility. In addition to these federal requirements, District Regulation 2-2-302 requires offsets at a 1.15 to 1.0 ratio for all facilities with a potential to emit (PTE) of 35 tons per year or more of NO_x or POC. The District also requires offsets at a 1.0 to 1.0 ratio for all facilities with a PTE between 10 and 35 tons per year of NO_x or POC. For this latter category, the District provides the POC and NO_x credits from the District Small Facility Banking Account (SFBA). To date, we have not had to make an equivalence demonstration for PM_{2.5}. The equivalence procedure is outlined in Appendix B.

Identification of New Major Facilities and Major Modifications

The District did not issue a P/O for a new major facility or major modification of a major facility in between 2014 and 2016.

Offset Equivalence Demonstration

Because the District has not issued a P/O for a major NSR project since the prior equivalence report, no new offset equivalence demonstration is needed for this reporting period.

Conclusion

There were no new major facilities or major modifications of a major facility during the reporting period of 2014 to 2016. Therefore, the District's offset program continues to be equivalent to federal requirements for the current reporting period.

APPENDIX A

Regulation 2-2-412

2-2-412 Demonstration of Offset Program Equivalence: By March 1 of each year, the District shall submit to EPA a demonstration that NO_x and POC offsets provided for all new and modified sources within the District, less adjustments to those offsets for federal purposes occurring between credit generation and use, exceed federal offset requirements for new major sources or major modifications at major stationary sources. Adjustment to emission reductions for federal purposes will be required if any of the following occur between the time the credit is generated and the time the credit is used:

412.1 BAAQMD adopts a relevant measure or rule that is required for purposes of federal attainment demonstration requirements.

412.2 A relevant rule or measure is approved into the State Implementation Plan applicable in the BAAQMD;

412.3 EPA promulgates a relevant final rulemaking for either a New Source Performance Standard or a Maximum Achievable Control Technology Standard.

The demonstration shall include:

412.4 Emission increases represented by all authorities to construct new major facilities and major modifications at major facilities issued during the three calendar years preceding the demonstration date;

412.5 A list of all emission reductions used to offset those emission increases;

412.6 The emission baselines that were used to calculate the emission reduction;

412.7 The source type, size and category that had generated the emission reduction credit;

412.8 All relevant rules that have been adopted or promulgated since the emission reduction had occurred.

412.9 Adjustments to emission reduction for federal purposes for all affected projects.

412.10 All of the above for as many non-major projects as are needed to demonstrate equivalence.

If the analysis fails to make the required demonstration, the District shall provide sufficient offsets to make up the difference out of the Small Facility Banking Account. If the Small Facility Banking Account does not contain the necessary surplus emission reductions, the District shall obtain the necessary surplus emission reductions.

APPENDIX B

Equivalence Procedure

District staff uses the following procedure to determine offset equivalence. In the ensuing discussion, the term *major NSR project* is used to collectively refer to a new major facility and a major modification of an existing major facility.

- Identify any new major NSR project that received a Permit to Operate (P/O) in the most recent year (2016) of the reporting period. If a major NSR project received a P/O in a previous year (2014 or 2015), that project has already been addressed in a prior report and does not need to be re-evaluated in this report.
- If there is no major NSR project that received a P/O in 2016, then there is no new analysis needed to demonstrate equivalence. If there is a new major NSR project, continue with the procedure, as follows.
- Compile a list of all permit applications for which offsets were required. This includes both major and non-major new source review (NSR) projects.
- For each major NSR project identified in the first step, review the permit application to determine from which banking certificate(s) the emission reduction credits (ERCs) were provided.
- Review original banking application(s) for ERCs that were used to offset the major NSR project. Determine the basis for the original ERCs, and any federally enforceable rules in effect at the time of deposit.
- RACT-adjust the original ERCs for the following types of federally enforceable rules that were in effect at the time of use of the ERCs (when the P/O was issued for the major NSR project):
 - District rule that is required for federal attainment demonstration purposes;
 - New or modified District rule that has been adopted into the SIP;
 - New Source Performance Standard (NSPS) rule;
 - Maximum Achievable Control Technology (MACT) rule.
- For each major NSR project, subtract the RACT-adjusted ERCs from the total offsets needed, to determine the offset shortfall for that project.
- If a shortfall is identified, review ERCs and contemporaneous on-site emission reductions⁶ from non-major projects. RACT-adjust these reductions as discussed above.
- Equivalence is achieved when RACT-adjusted offsets from non-major projects meet or exceed the shortfall.

⁶ A contemporaneous on site emission reduction is a verified reduction that has not been banked but would have qualified for banking.