

Update on District Emission Reduction Credit System and Consider Actions to Address Federal Offsetting Requirements

San Joaquin Valley Air Pollution Control District
Governing Board Meeting
February 17, 2022

District Air Quality Efforts

- Long history of developing and implementing air quality strategies, with numerous plans achieving significant emissions reductions
 - Most stringent rules in the nation for stationary sources under District jurisdiction
 - Innovative clean air incentive programs accelerating deployment of cleanest technologies (\$4 billion public/private investment)
- Air quality improvement efforts have reduced ozone and PM_{2.5} forming NO_x emissions by over 75%
 - Greater than 90% reduction from stationary sources under District jurisdiction
 - Significant progress in meeting health-based federal air quality standards
- District also implements a permitting program designed under state law to ensure on a regional basis there is no net increase in emissions for new or modified sources

District's New Source Review Rule

- District Rule 2201 (New and Modified Stationary Source Review)
 - Designed to meet both federal and state NSR requirements
 - Subject to most rigorous NSR requirements due to attainment status
- Key elements of Rule 2201 include:
 - Best Available Control Technology (BACT) – mandates emission controls to minimize emission increases
 - Emission Offsets - requires emissions above specified offset threshold levels to be mitigated with either concurrent reductions or banked ERCs. ERCs cannot be used in lieu of meeting other control requirements (e.g., BACT or prohibitory rules)
 - Federal Offset Equivalency – system to ensure local NSR offset requirements are at least as stringent as federal requirements
 - Public notification - a notice period prior to issuance of Authority to Construct (ATC) to garner comments on projects that result in emissions above specified levels

CARB Review of ERC Program

- At January 2019 board meeting, CARB Board directed their staff to review the District's ERC program
 - Response to request from environmental advocacy organizations
 - CARB review focused on District's ERC program, including equivalency demonstration, relative to overarching federal, state, and local regulations
- District worked with CARB staff to:
 - Communicate concerns and expectations, including that the review be conducted objectively and in context of state, federal, and District regulations
 - Aid in the understanding of the District's ERC system and permitting program
 - Provide all requested information
- CARB final report released June 5, 2020
- CARB Board hearing held June 26, 2020
 - Approved their staff's recommendations including commitment to support the District's local process moving forward

District Response to CARB Review

- District appreciates CARB's general recognition of the stringency of the District's air quality programs and the success in reducing emissions from stationary sources in the Valley
- CARB's review points to the need to revisit and potentially enhance aspects of the ERC and offset equivalency program moving forward
- District has committed to:
 - Enhancing transparency in offset equivalency process and taking specific actions to revisit emission reduction categories used in the equivalency demonstration
 - Holding a public workshop each year on the draft annual equivalency demonstration prior to submitting the report to the District Governing Board
 - Convening a public advisory workgroup consisting of affected stakeholders to assist in developing solutions related to the offset equivalency program

District Commitments

- Conduct a public workshop each year, beginning with the 2019-2020 equivalency demonstration, to present the results of the annual equivalency demonstration prior to taking the report to the District's Governing Board
 - District held public workshops on November 5, 2020, and October 26, 2021, to present the draft results of the 2019-20 and 2020-21 annual equivalency demonstration, respectively
 - Public workshops allowed for review and comment on the draft demonstrations prior to finalizing the reports, submitting the final reports to EPA/CARB and taking the final reports to the Governing Board

District Commitments (cont'd)

- Enhance the annual demonstration report to make the report more understandable beginning with the 2019-2020 equivalency demonstration, including more fully characterizing adjustments made to year-to-year carry-overs to ensure the public can better understand all adjustments effective in a tracking year.
 - District significantly enhanced the 2019-20 and 2020-21 annual offset equivalency demonstration reports
 - Incorporated stakeholder suggestions for making the report easier to understand
 - Provided detailed explanations of the methodology used to assess equivalency

District Commitments (cont'd)

- Convene a public advisory working group consisting of affected stakeholders, including community-based organizations, regulated Valley businesses, Citizens Advisory Committee members, EPA, and CARB, to assist in developing solutions related to the District's offset equivalency system.
 - Created by Board in late Aug 2020 / Kick-off in Sep 2020
 - Provides a forum for discussion/suggestions to assist the District is developing solutions/enhancements related to the ERC and offset equivalency system
 - Hear perspectives and receive input on the ERC and offset equivalency systems from stakeholders
 - To date, 11 meetings have been held

District Commitments (cont'd)

- Adjust calculated emission reductions from all affected Agricultural Internal Combustion Engine Conversion Incentive Program (AG-ICE) projects to reflect the appropriate load-factor. Analyze the orphan shutdown projects identified by CARB, and make adjustments, as appropriate.
 - On September 17, 2020, the District Governing Board proactively withdrew the emission reductions from AG-ICE and orphan shutdowns from the District's offset equivalency system
 - Board action enacted Rule 2201 remedy as no longer able to demonstrate equivalency with surplus value test for NO_x and VOC

District Commitments (cont'd)

- Update the District's policies that pertain to the quantification of emissions reductions from orphan shutdowns, and ensure procedures and associated staff training to maintain consistency with District NSR criteria for creditability of emissions reductions.
 - District has not included any new orphan shutdown reductions in the equivalency system and has removed all existing reductions
 - District is currently evaluating the development of mechanisms and methodologies for the use of these and other types of creditable emission reductions (e.g., orphan shutdowns, mobile source reductions)
 - To enhance consistency, District has assigned and trained a group of staff that are now exclusively responsible for overseeing efforts associated with ERC issuance and use, and offset equivalency

District Commitments (cont'd)

- Develop a new equivalency tracking database, including associated documentation.
 - District will begin the development of a new database and associated tracking infrastructure once an approvable path forward is developed with CARB and EPA and the District's NSR and ERC banking rules are amended accordingly

District Offset Equivalency Program

- EPA and ARB initially approved the District's approach in 2001
- District performs an annual demonstration that the District's ERC program is at least as stringent as federal offsetting requirements
 - Submitted to EPA, CARB, and presented to Governing Board at public hearing
- Annual report must demonstrate both of the following:
 - The quantity of offsets required by Rule 2201 equals or exceeds the quantity of federal offsets that would have been required
 - The surplus value of offsets required by Rule 2201, plus surplus value of additional creditable emission reductions, equals or exceeds the quantity of federal offsets that would have been required
- Rule 2201 contains remedies in event equivalency not demonstrated

2019-20 Offset Equivalency Demonstration

- Tracking year: August 20, 2019 through August 19, 2020
- Tracked federal projects:
 - 15 Federal Major Modifications (3 NO_x only, 8 VOC only, and 4 both NO_x and VOC)
 - 0 New Major Sources
- Significant adjustments incorporated into 2020 Demonstration:
 - Incorporate Board's action regarding removal of AG-ICE and orphan shutdown credits (affects PM₁₀, PM_{2.5} and SO_x; affects surplus test)
 - Address cancelled/non-implemented projects (affects all pollutants; affects tracked increases and decreases; affects quantity and surplus tests)
 - Federal Offset Ratio correction (affects NO_x and VOC tracked increases from 8/20/2010 to 8/19/2014; affects quantity and surplus tests)
 - VOC no longer able to demonstrate offset quantity equivalency (Rule 2201 remedy enacted)

2020-21 Offset Equivalency Demonstration

- Tracking year: August 20, 2020 through August 19, 2021
- Tracked federal projects:
 - 16 Federal Major Modifications (4 NO_x only, 7 VOC only, and 5 both NO_x and VOC)
 - No Federal Major Modifications for SO_x, PM₁₀, or PM_{2.5}
 - 0 New Major Sources
- VOC no longer part of equivalency demonstration
 - ERCs required for full federal offset quantity and must be surplus at time of ATC issuance

Recommended Action on Offsetting Requirements

- The 2020-2021 offset equivalency report identified a NO_x shortfall in the offset quantity test
- Offset quantity equivalency for NO_x was maintained using the NO_x carry-over balance
 - Annual shortfall in the quantity of NO_x offsets required highlights the possibility that the current surplus value remedy in District Rule 2201 will not ensure the District will be able to remain equivalent with federal offsetting requirements
- It is imperative District operates an offsetting program that ensures federal offsetting requirements can be met on an ongoing basis

Recommended Action on Offsetting Requirements

- Consistent with the District's efforts to evaluate the offsetting program and ensure all state and federal requirements can be met:
 - Staff recommends that the Board take action to require that all projects triggering federal offsets for NO_x be required to provide ERCs for the full federal offset quantity and that credits be surplus at time of ATC issuance
 - To effect this change, staff recommends that the Board direct the Executive Director/APCO to withdraw the NO_x portion of the 2020-21 Annual Offset Equivalency Report, which would enact Rule 2201 7.4.1.3 remedy requiring project-level federal NO_x offsetting
 - After action, NO_x offset requirements would be consistent with current VOC requirements
- Recommended action discussed at ERC PAW on February 3, 2022

Moving Forward: Amendments to Rule 2201

- District is currently pursuing a multipath approach
- In accordance with the offset equivalency remedies contained within Rule 2201, the District must now amend Rule 2201 requirements associated with federal offsetting of VOC and NOx
- Maintain equivalency system for PM10, PM2.5, SOx, & CO
- Proposed amendments to District Rule 2201 will include:
 - Adopting full federal offsetting program for NOx and VOC
 - Amendments to offset methodologies, exemptions and requirements
 - Amendments to existing offset equivalency remedies (PM10, PM2.5, SOx, & CO)
- Public scoping meeting late 1st quarter or early 2nd quarter of 2022
 - Public Advisory Workgroup will help inform rule development process

Moving Forward: ERC Supply and Demand

- Need to identify options to generate sufficient quantity of surplus credits to support federal offsetting requirements
- Preliminary analysis projects possible future shortage of VOC and NO_x ERCs
- Limited opportunities for the generation of new ERCs through traditional approved pathways
 - Challenging to generate new ERCs through the control of emissions that go beyond the District's stringent rules and regulations
 - Need to look to non-traditional sources and methods
- Most new ERCs are generated from facility/equipment shutdowns
- Rule development process will formalize mechanisms for generating or obtaining the credits necessary to meet offsetting obligations

Recommendations

1. Receive update on District efforts to enhance the Emission Reduction Credit program as necessary to maintain an effective permitting system that allows for protection of public health and economic growth.
2. Authorize the Executive Director/APCO to withdraw the NOx portion of the 2020-21 Annual Offset Equivalency Report, and, consistent with Section 7.4.1.3 of Rule 2201, enact the remedy to require all ATCs for new major NOx sources or NOx federal major modifications issued after the report withdrawal to comply with the offset requirements of 40 CFR 51.165, and part D of Title I of the CAA.

Recommendations (cont'd)

3. Direct District staff to begin the rule development process required by Section 7.4.1.2 of Rule 2201 to amend Rule 2201 to ensure the applicability and offset requirements comply with the federal new source review requirements.
4. Direct District staff to continue working with stakeholders, EPA, and CARB through the Public Advisory Workgroup in pursuit of solutions to enhance the District Emission Reduction Credit program to ensure an adequate supply of credits are available to meet offsetting obligations.