

March 1, 2022

Elizabeth Adams, Director
Air and Radiation Division
U.S. EPA, Region IX
75 Hawthorne St
San Francisco, CA 94105-3901

Re: Revised Offset Equivalency Report, August 2020 – August 2021

Dear Ms. Adams:

Pursuant to Rule 2201 (*New and Modified Stationary Source Review NSR Rule*), the San Joaquin Valley Air Pollution Control District (District) completed its annual offset equivalency report for the twelve-month period from August 20, 2020, to August 19, 2021. The report was previously submitted to Mr. Matt Lakin, Acting Director, on November 19, 2021.

As detailed in the report, there was a current year offset quantity shortfall; however, there was a sufficient NO_x carry-over balance to maintain offset quantity (Test 1) equivalency. While the report was submitted to meet the strict timelines mandated in Rule 2201, further analysis of the 2020-21 annual shortfall in the quantity of NO_x offsets required highlights the possibility that the current Test 2 remedy in District Rule 2201 will not be sufficient to ensure the District will be able to remain equivalent with federal offsetting requirements. Consistent with the District's efforts to evaluate the offsetting program and ensure that all state and federal requirements are met, on February 17, 2022, the District's Governing Board took action to require that all new major sources or federal modifications triggering offsets for NO_x be required to provide ERCs for the full federal offset quantity and that those credits be surplus at time of ATC issuance. This makes NO_x offsetting requirements consistent with current VOC offsetting requirements. To effect this change, the Board directed the Executive Director/APCO to withdraw the NO_x portion of the 2020-21 Annual Offset Equivalency Report. Consistent with Section 7.4.1.3 of Rule 2201, this action would enact the remedy to require all ATCs for new major sources or 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.

Samir Sheikh

Executive Director/Air Pollution Control Officer

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Ms. Adams
Page 2

The amended report (see attached) officially replaces the report originally submitted on November 19, 2021, and reflects the District's withdrawal of the NOx portion of the 2020-21 Annual Offset Equivalency Report. Consistent with Section 7.4.1.3 of District Rule 2201, the District will require all ATCs for NOx new major sources or federal major modifications, issued after the withdrawal of the NOx portion of the report, to comply with the offset requirements of 40 CFR 51.165, and part D of Title I of the CAA.

As detailed in the amended report, the District demonstrated that the District's offset program has required the same or more offsets than would have been required under federal offset requirements (Test 1) for particulate matter (PM10 and PM2.5) and sulfur oxides (SOx). The report also demonstrates that the surplus value of the reductions used were equal to or exceeded those required under federal NSR for PM10, PM2.5, and SOx. Please note that all new major sources or federal major modification projects triggering offsets for NOx or VOC under 40 CFR 51.165 and part D of Title I of the CAA are now required to satisfy the full federal offset quantity by providing emission reduction credits (ERCs) that are surplus at time of Authority to Construct (ATC) issuance.

The District looks forward to continue working with your staff to navigate the impacts of federal offsetting requirements, and in pursuit of solutions to enhance the District ERC and offset equivalency programs as needed to maintain an effective permitting system that allows for protection of public health and strong economic growth in the Valley.

Please call me at (559) 230-5900 or email me at brian.clements@valleyair.org if you have any questions regarding this matter, or if you need additional details.

Sincerely,

A handwritten signature in blue ink that reads "Brian Clements".

Brian Clements
Director of Permit Services

cc: Courtney Graham, CARB

Attachment: Revised Annual Offset Equivalency Report

Attachment: Revised 2020-2021 Annual Offset Equivalency Report

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

2020-2021 Revised Annual Offset Equivalency Report

San Joaquin Valley APCD

Annual Offset Equivalency Report

Offset Quantity Equivalency

Summary for 08/20/2020 through 08/19/2021

Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets	Offsets	Current Year Excess or Shortfall	Previous	Year-to-	Year-End
			Required under Federal NSR	Required under District NSR		Year-End Total Carryover Excess or Shortfall	Year Adjustment to Carryover Balance	Year-End Total Carryover Excess or Shortfall
			(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f)=(d)+(e)+(c)
PM10	0	0	0.0	10.6	10.6	326.1	0.0	336.7
PM2.5	0	0	0.0	0.0	0.0	192.3	0.0	192.3
CO	0	0	0.0	0.0	0.0	198.1	0.0	198.1
SOx	0	0	0.0	6.4	6.4	1,223.5	-0.3	1,229.6

Notes:

- All values are in tons per year

San Joaquin Valley APCD

Annual Offset Equivalency Report

Surplus Value Equivalency

Summary for 08/20/2020 through 08/19/2021

Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets	Surplus	Current Year Excess or Shortfall	Previous	Year-to-	Current Year New Creditable Reductions	Year-End Total Carry-over Creditable Reductions
			Required under Federal NSR	Reductions Used for Equivalency This Year		Year-End Total Carry-over Creditable Reductions	Year Adjustment to Carryover Balance		
			(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f)	(g)=(d)+(e)+(c)+(f)
PM10	0	0	0.0	0.0	0.0	330.0	0.0	11.7	341.7
PM2.5	0	0	0.0	0.0	0.0	197.0	0.0	6.3	203.3
CO	0	0	0.0	0.0	0.0	763.0	0.0	0.0	763.0
SOx	0	0	0.0	0.0	0.0	338.2	-0.3	5.1	343.0

Notes:

- All values are in tons per year

Table of Contents

I. Summary	1
II. Background	1
A. District Offset Equivalency Program	2
B. Public Advisory Workgroup.....	3
C. Withdrawal of NOx Portion of Report	3
D. Public Workshop	4
III. Federal Offsets Required During 2020-2021 Tracking Period.....	4
A. New Major Source (NMS):.....	4
B. Federal Major Modification (FMM):	5
C. Total Federal Offset Quantity Required.....	5
IV. District Offsets Required During 2020-2021 Tracking Period	5
V. Creditable Emission Reductions Generated During 2020-2021 Tracking Period	6
A. Emission Reduction Credits Reserved/Withdrawn.....	6
B. Emission Reduction Credits Surrendered.....	6
C. Air Quality Improvement Deduction	7
D. Orphan Shutdowns	7
E. Actual Emission Reductions from Implementing BACT on Existing Equipment at Minor Source.....	7
VI. Adjustments to Prior Year End Carry-Over Balances	7
A. Offset Quantity (Test 1) Carry-Over Balance Adjustments	8
1. District and Federal Offset Quantity Adjustments.....	8
B. Surplus Creditable Reductions (Test 2) Carry-Over Balance Adjustments.....	9
1. Re-surplusing of Surplus Carry-Over Creditable Reductions	9
2. District and Federal Offset Quantity Adjustments.....	9
VII. Annual Equivalency Demonstration - Offset Quantity Equivalency (Test 1)	10
VIII. Annual Equivalency Demonstration - Surplus Value Equivalency (Test 2).....	11
IX. Implications of 2020-2021 Offset Equivalency Demonstration.....	11
A. SOx, PM10, PM2.5, and CO	11

List of Acronyms

AER:	Actual Emission Reductions
AG-ICE:	Agricultural Internal Combustion Engine Conversion Incentive Program
AQID:	Air Quality Improvement Deduction
ATC:	Authority to Construct
BACT:	Best Available Control Technology
CAA:	Clean Air Act
CARB:	California Air Resources Board
CFR:	Code of Federal Regulations
DOQ:	District Offsets Quantity
EPA:	Environmental Protection Agency
ERC:	Emission reduction credits
FMM:	Federal Major Modification
FOQ:	Federal Offsets Quantity
NMS:	New Major Source
NSR:	New Source Review
NOx:	Nitrogen Oxide
PM10:	Particulate Matter (10 micron or less)
PM2.5:	Particulate Matter (2.5 micron or less)
CO:	Carbon Monoxide
SOx:	Sulfur Oxide

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

I. Summary

Pursuant to Rule 2201 (*New and Modified Stationary Source Review NSR Rule*), the San Joaquin Valley Air Pollution Control District (District) has completed its annual offset equivalency report for the twelve-month period from August 20, 2019, to August 19, 2020. The individual elements that contributed to this year's offset equivalency determination are presented in this annual offset equivalency report.

A summary of the results from the 2020-2021 offset equivalency demonstration is shown in the following table:

Table 1: 2020-2021 Offset Equivalency Demonstration Report Summary

Equivalent?	PM10	PM2.5	CO	SOx
Test 1: Offset Quantity	Yes	Yes	Yes	Yes
Test 2: Surplus Value	Yes	Yes	Yes	Yes

II. Background

To achieve the District's mission of improving air quality and public health for all Valley residents, the District has developed and implemented numerous air quality plans to reduce emissions from stationary sources through the adoption of nearly 650 of the most stringent rules in the nation and strong voluntary incentive programs that have invested more than \$4 billion of combined funds in clean-air projects. Over the past several decades, these air quality improvement efforts have reduced NOx emissions (primary precursor for both ozone and PM2.5) from stationary and mobile sources by over 75%, including a greater than 90% reduction from stationary sources under the District's jurisdiction, resulting in significant air quality progress towards meeting the health-based federal ozone and PM2.5 standards.

In addition to the District rules aimed at directly reducing emissions from stationary sources, the District also has a set of rules establishing a permitting program designed under state law to ensure on a regional basis there is no net increase in emissions of nonattainment pollutants or their precursors for new or modified sources.

Under the District's New Source Review (NSR) Rule, new facilities and modifications to existing facilities that result in increases in permitted emissions above specified levels are required to provide offsets as a part of the requirements to obtain an "Authority to Construct" permit. Both federal and state law mandate NSR permitting programs that contain offsetting requirements. Emission reduction credits (ERCs) are the currency of offsets. Offsets are intended by both federal and state law to be one part of a comprehensive NSR permitting program that has

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

been specifically designed by Congress and the state legislature to allow for industrial growth while regulating any emissions increases. Additionally, any emission increases due to growth in the economy are accounted for in State Implementation Plans that demonstrate how the District's overall air quality control program will require sufficient emissions reductions to attain national ambient air quality standards.

It is important to clarify that ERCs cannot be used in lieu of meeting other air pollution control requirements, such as through market-based systems that other agencies may have in place. Instead, ERCs are required in addition to, and only after, establishing that the new emission units are controlled with the best available control technology (BACT), comply with all applicable prohibitory rules, and will not cause a health risk to surrounding communities. The District's NSR permitting program, including the accompanying ERC program, ensures that new emissions are controlled with the best technologies, prevents the permitting of any operation that will cause a significant health impact, demonstrates that attainment is not endangered, and has historically been found by the state and federal governments to comply with state and federal laws governing NSR/ERC programs.

A. District Offset Equivalency Program

As allowed by the federal Clean Air Act (CAA), the District's offsetting program differs from a direct implementation of the federal offsetting requirements. The federal Environmental Protection Agency (EPA) approved the District's approach in 2001 as the District's local NSR program was at least as stringent as the federal program. As included in the District's NSR Rule, to demonstrate equivalency with the federal NSR offsetting requirements the District is required to prepare and submit an annual offset equivalency report to EPA and the California Air Resources Board (CARB) by November 20th that evaluates where both of the following conditions are met:

- Offset Quantity (Test 1) – the quantity of offsets required by the District from new and modified stationary sources equals or exceeds the quantity of offsets otherwise required under federal regulations; and
- Surplus Value (Test 2) - the amount of reductions, after discounting at the time of use, required by the District from new and modified stationary sources, plus any additional surplus creditable emission reductions, equals or exceeds the amount of offsets otherwise required under federal regulations.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Under the District's NSR rule, if the system cannot demonstrate equivalency with federal requirements, immediate and specified remedies are required to be enacted for each of the above tests. For example, if the system fails to demonstrate equivalency for the surplus value test any project requiring offsets under the District NSR rule for a new major source or federal major modification as defined by 40 CFR 51.165 and part D of Title I of the CAA are required to supply ERCs that are surplus-at-time of ATC issuance.

For additional information regarding the District offset equivalency program, please see Rule 2201, Section 7.0: <http://www.valleyair.org/rules/currnrules/r2201.pdf>.

B. Public Advisory Workgroup

Following nearly a year and a half of a detailed review, CARB released its final report titled *Review of San Joaquin Valley Air Pollution Control District Emission Reduction Credit System* on June 5, 2020. In response to CARB's review, the District committed to taking specific steps to enhance the program as necessary to maintain an effective permitting system that allow for protection of public health and strong economic growth.

To ensure that any enhancements to the District's offset equivalency system benefit fully from the input and suggestions of Valley stakeholders and subject matter experts, the District Governing Board created a public advisory working group to assist in developing solutions related to the District's offset equivalency system. The public advisory working group concept and framework was developed with Valley community based organizations and regulated Valley businesses to support the development of the 2016 Ozone and the 2018 PM2.5 plans. This framework provided a successful mechanism to navigate complex topics and receive valuable stakeholder input that aided the development of the plans. The District believes that this public engagement tool will also be effective in navigating the complex subject matter of ERCs and federal offset equivalency, and enable effective stakeholder input that will be valuable in developing enhancements to the program. To date, the ERC Public Advisory Workgroup has met nine times since its formation in September 2020 and is scheduled to meet on an ongoing basis.

C. Withdrawal of NOx Portion of Report

The 2020-21 Annual Offset Equivalency Report was completed and submitted to EPA and CARB on November 19, 2021, and received and filed by the Governing Board on December 16, 2021. As detailed in the report, there was a current year offset quantity shortfall; however, there was a sufficient NOx carry-over balance to maintain offset quantity (Test 1) equivalency. While the report was submitted to meet the strict timelines mandated in Rule 2201, further analysis of the 2020-21 annual shortfall in the quantity of NOx offsets required highlights the possibility that the current Test 2 remedy in District Rule 2201 would not be sufficient to ensure the District would be able to remain equivalent with federal offsetting requirements.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

It is imperative that the District operates an offsetting program that ensures that federal offsetting requirements can be met on an ongoing basis. Consistent with the District's efforts to evaluate the offsetting program and ensure that all state and federal requirements are met, on February 17, 2022, the District Governing Board took action to require that all new major sources or federal modifications triggering offsets for NO_x be required to provide ERCs for the full federal offset quantity and that those credits be surplus at time of ATC issuance. To effect this change, the Governing Board directed the Executive Director/APCO to withdraw the NO_x portion of the 2020-21 Annual Offset Equivalency Report. Consistent with Section 7.4.1.3 of Rule 2201, this action enacted a remedy to require all ATCs for new major sources or federal major modifications triggering offsets for NO_x and 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.

D. Public Workshop

Consistent with a commitment by the District to enhance the public engagement and transparency in the offset equivalency process, on October 26, 2021, the District held a public workshop to present the draft 2020-21 offset equivalency demonstration and provide detailed explanations of the equivalency process and the significant adjustments that were being made as part of this year's demonstration.

III. **Federal Offsets Required During 2020-2021 Tracking Period**

Federal offsetting requirements are stated in 40 CFR 51.165, and part D of Title I of the CAA. Pursuant to these requirements, New Major Sources or Federal Major Modifications must provide a sufficient quantity of surplus-at-time-of-use ERCs to satisfy offsetting requirements. The amount of Federal Offsets Quantity (FOQ) required for ATC projects finalized during this report's tracking period is discussed in the following sections.

A. New Major Source (NMS):

Pursuant to 40 CFR 51.165 (a)(1)(iv)(A)(3), a New Major Source is created if emission increases for a given pollutant at a new source or existing non-major source equals or exceeds the major source threshold for that pollutant, i.e. the project by itself would result in a net emission increase exceeding the major source threshold. The major source emission threshold for each criteria pollutant is specified in Rule 2201, Table 3-3 (8/15/19).

During this report's tracking period, there were no NMS projects finalized. Therefore, there will be no NMS projects mitigation in this year's equivalency demonstration.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

B. Federal Major Modification (FMM):

As defined in 40 CFR 51.165, Section (a)(1)(v) and part D of Title I of the CAA, a Federal Major Modification is any physical change in, or change in the method of operation of, a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the federal Clean Air Act. The significant net emission increase threshold for each criteria pollutant is specified in Rule 2201, Table 3-1 (8/15/19).

There were no projects finalized during this reporting period that triggered a FMM for the pollutants that the District continues to track for equivalency (SO_x, PM₁₀, and PM_{2.5}). Therefore, there will be no FMM projects mitigated in this year's equivalency demonstration.

C. Total Federal Offset Quantity Required

As stated above, during this report's tracking period, there were no NMS projects or projects triggering a FMM for the pollutants that the District continues to track for equivalency (SO_x, PM₁₀, and PM_{2.5}). Therefore, there are no FOQ to be mitigated in this year's offset equivalency demonstration.

IV. **District Offsets Required During 2020-2021 Tracking Period**

During this report's tracking period, four (4) ATC projects triggered offsets under the District's local NSR rule for the pollutants that the District continues to track for equivalency (SO_x, PM₁₀, and PM_{2.5}), and ERCs were required to satisfy the offsetting requirements for these projects.

Table 2: Total District Offsets Required (tpy)

SO_x	PM₁₀
6.4	10.6

The total amount of District offsets required for projects finalized during this report's tracking period and the surplus value of those ERCs used to satisfy the offset obligation are used to determine both Offset Quantity (Test 1) and Surplus Value (Test 2) equivalency.

All ERCs reserved for District offset projects are individually identified in Appendix A.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

V. Creditable Emission Reductions Generated During 2020-2021 Tracking Period

To satisfy Surplus Value (Test 2) equivalency, the District may use the surplus at time-of-use value of various categories of creditable emission reductions, including ERCs reserved/withdrawn, surrendered ERCs, Air Quality Improvement Deduction (the district portion of newly issued ERCs), orphan shutdowns, and BACT on existing minor sources.

Surplus reductions generated during a tracking year excess of federal NSR requirements are allowed to be carried forward and used to demonstrate equivalency with federal offsetting requirements in future years provided the reductions remain surplus at time-of-use.

The new surplus reductions generated and added as part of this equivalency demonstration are summarized in the following table.

Table 3: 2020-2021 New Surplus Reduction Summary (tpy)

Category	SOx	PM10	PM2.5
ERC Reserved/Withdrawn	5.1	11.6	6.3
ERCs Surrendered	0.0	0.0	0.0
ERCs Newly Issued (AQID)	0.0	0.1	0.0
Orphan Shutdowns	0.0	0.0	0.0
BACT on Minor Sources	0.0	0.0	0.0
Total	5.1	11.7	6.3

A. Emission Reduction Credits Reserved/Withdrawn

During this report's tracking period, there were four (4) ATC projects for which ERC certificates were reserved/withdrawn to satisfy the offsetting requirements of District Rule 2201, for the pollutants that the District continues to track for equivalency (SOx, PM10, and PM2.5).

A detailed list of these ERC certificates is included in Appendix B-1.

B. Emission Reduction Credits Surrendered

During this report's tracking period, there was one (1) ERC certificate surrendered to satisfy requirements not required by District Rule 2201.

A detailed list of the ERC certificate is included in Appendix B-2.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

C. Air Quality Improvement Deduction

During this report's tracking period, there was one (1) new ERC banking project finalized. Pursuant to District Rule 2201, Section 4.12, prior to banking Actual Emission Reductions (AER) for ERC certificates, the AER shall be discounted by 10 percent for Air Quality Improvement Deduction (AQID). The AQID is surplus of all federal rules and regulations at the time of banking and is included in the District's offset equivalency system as a surplus additional creditable reduction.

Individual ERC banking project is included in Appendix B-3.

D. Orphan Shutdowns

On September 17, 2020, the District's Governing Board removed emission reductions from unbanked facility shutdowns ("orphan shutdowns") from the District's offset equivalency system. The District intends to work through a public process to develop EPA and CARB accepted mechanisms and methodologies to credit actual emission reductions from future orphan facility shutdowns and allow the use of these credits by facilities to satisfy federal offsetting requirements or to aid in demonstrating equivalency, as applicable.

No mechanisms and methodologies to credit these reductions have been approved as of the date of this report. Therefore, the surplus reductions from orphan shutdowns will not be considered in the equivalency demonstration for this tracking period.

E. Actual Emission Reductions from Implementing BACT on Existing Equipment at Minor Sources

Pursuant to District Rule 2201, actual emission reductions in excess of any federal requirement, generated from control technologies required by the District's Best Available Control Technology (BACT) requirements for existing equipment at minor sources, are identified as surplus reductions. The District has never used these surplus reductions to demonstrate offset equivalency as no mechanisms or methodologies to quantify the surplus value of these reductions have been approved as of the date of this report. Therefore, the surplus reductions from the implementation of BACT on existing equipment at minor sources will not be considered in the equivalency demonstration for this tracking period.

VI. **Adjustments to Prior Year End Carry-Over Balances**

Prior to conducting the annual equivalency demonstration, it may be necessary to adjust the prior year end carry-over balances to account for cancelled and unimplemented projects, partially implemented projects, and the addition of prior year projects, ERCs, or other creditable emission reductions that were not accounted for previously. Additionally, the District must review new rules and

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

regulations to determine if adjustments must be made to the surplus creditable reduction carry-over.

This year the District has conducted a review of the projects and entries in the system, and made adjustments to the carry-over balances as part of the 2020-2021 demonstration.

All adjustments made to the prior year end carry-over balances are presented below.

A. Offset Quantity (Test 1) Carry-Over Balance Adjustments

Table 4: Adjustments to Offset Quantity Carry-Over Balance (tpy)

Category		SOx	PM10	PM2.5
(a)	Adjustments to District Offset Quantity	-0.3	0.0	0.0
(b)	Adjustments to Federal Offset Quantity	0.0	0.0	0.0
(c) = (a) – (b)	Net Adjustment to Unused Carry-over	-0.3	0.0	0.0

1. *District and Federal Offset Quantity Adjustments*

Adjustments to the offset quantity carry-over balances will only be made to the pollutants that the District continues to track for equivalency (SOx, PM10, and PM2.5). For this year's offset equivalency demonstration, the District identified one (1) project entry in the equivalency system that needed to be re-evaluated due to cancelled/unimplemented ATCs. Once validated, the District Offset Quantity (DOQ) and FOQ for this project's entries were adjusted, where necessary, and are reflected in the changes to the carry-over balances. Additional information on the one (1) adjusted project is discussed below.

E&B Natural Resources Mgmt (Project S-1193935): The District issued ATCs and included the emissions in the tracking system for the installation of diesel-fired IC engines during the 2019-2020 reporting period. However, the project was never implemented and all the ATCs were cancelled.

A list of adjustments to the DOQ and FOQ values for the Offset Quantity Carry-Over Balance is provided in Appendices C-1 and C-2.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

B. Surplus Creditable Reductions (Test 2) Carry-Over Balance Adjustments

Table 5: Adjustments to Unused Surplus Carry-over Creditable Reductions (tpy)

Category		SOx	PM10	PM2.5
(a)	Re-surplusing of Prior Year Carry-over	0.0	0.0	0.0
(b)	Adjustments to District Offset Quantity	-0.3	0.0	0.0
(c)	Adjustments to Federal Offset Quantity	0.0	0.0	0.0
(d) = (b) - (a) - (c)	Net Adjustment to Unused Carry-over	-0.3	0.0	0.0

1. *Re-surplusing of Surplus Carry-Over Creditable Reductions*

Each year the District must review changes to rules and regulations to determine if adjustments must be made to the surplus carry-over creditable reduction balance. During this report's tracking period, there was no surplus value discounting required.

2. *District and Federal Offset Quantity Adjustments*

Adjustments to the surplus value carry-over balances will only be made to the pollutants that the District continues to track for equivalency (SOx, PM10, and PM2.5). For this year's offset equivalency demonstration, the District identified one (1) project entry in the equivalency system that needed to be re-evaluated for potential adjustments to DOQ and FOQ due to cancelled/unimplemented ATCs. Once validated, the DOQ and FOQ for this project's entries were adjusted, where necessary, and are reflected in the changes to the carry-over balances. For purposes of surplus value (Test 2) equivalency, the adjustments to DOQ must be translated to the impact on the surplus value of those credits. Therefore, using the validated DOQ, the corresponding surplus value adjustments were determined for each impacted project and utilized in evaluating surplus value (Test 2) equivalency as reflected in Table 5 above. Additional information on the one (1) project requiring an adjustment to surplus value is discussed below.

E&B Natural Resources Mgmt (Project S-1193935): The District issued ATCs and included the emissions in the tracking system for the installation of diesel-fired IC engines during the 2019-2020 reporting

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

period. However, the project was never implemented and all the ATCs were cancelled.

A list of adjustments to the DOQ values for the Surplus Carry-Over Creditable Reduction Balance is provided in Appendix C-3.

VII. Annual Equivalency Demonstration - Offset Quantity Equivalency (Test 1)

The table below outlines the District's 2020-21 equivalency demonstration for the Offset Quantity (Test 1) requirements specified in Section 7.2.1 of Rule 2201. This table only includes the pollutants that the District continues to track for equivalency.

Table 6: Offset Quantity Equivalency Demonstration (tpy)

San Joaquin Valley APCD

Annual Offset Equivalency Report

Offset Quantity Equivalency

Summary for 08/20/2020 through 08/19/2021

Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets	Offsets	Current Year Excess or Shortfall	Previous Year-End Total	Year-to-Year Adjustment	Year-End Total
			Required under Federal NSR	Required under District NSR		Carryover Excess or Shortfall	to Carryover Balance	Carryover Excess or Shortfall
			(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f) = (d) + (e) + (c)
PM10	0	0	0.0	10.6	10.6	326.1	0.0	336.7
PM2.5	0	0	0.0	0.0	0.0	192.3	0.0	192.3
CO	0	0	0.0	0.0	0.0	198.1	0.0	198.1
SOx	0	0	0.0	6.4	6.4	1,223.5	-0.3	1,229.6

Notes:

- All values are in tons per year

SOx, PM₁₀, PM_{2.5}, and CO:

As shown in the table, there is a current year offset quantity excess, or zero (0) shortfall, for the current year. Following the year-to-year adjustments to the prior year carry-over balances, all pollutants maintain a positive carry-over balance and thus remain offset quantity (Test 1) equivalent.

An explanation of the categories in the table is provided in Appendix D.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

VIII. Annual Equivalency Demonstration - Surplus Value Equivalency (Test 2)

The table below outlines the District's 2020-21 equivalency demonstration for the Surplus Value (Test 2) requirements specified in Section 7.2.2 of Rule 2201. This table only includes the pollutants that the District continues to track for equivalency.

Table 7: Surplus Value Equivalency Demonstration (tpy)

San Joaquin Valley APCD

Annual Offset Equivalency Report

Surplus Value Equivalency									
Summary for 08/20/2020 through 08/19/2021									
Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets	Surplus	Current Year Excess or Shortfall	Previous	Year-to-	Current Year New Creditable Reductions	Year-End Total Carry-over Creditable Reductions
			Required under Federal NSR (a)	Reductions Used for Equivalency This Year (b)		Year-End Total Carry-over Creditable Reductions (d)	Year Adjustment to Carryover Balance (e)		
			(c) = (b) - (a)			(e)		(g) = (d) + (e) + (c) + (f)	
PM10	0	0	0.0	0.0	0.0	330.0	0.0	11.7	341.7
PM2.5	0	0	0.0	0.0	0.0	197.0	0.0	6.3	203.3
CO	0	0	0.0	0.0	0.0	763.0	0.0	0.0	763.0
SOx	0	0	0.0	0.0	0.0	338.2	-0.3	5.1	343.0

Notes:

- All values are in tons per year

SOx, PM₁₀, PM_{2.5}, and CO:

As shown in the table, there were no NMS or FMM projects this tracking year. Following the year-to-year adjustments to the prior year carry-over balances, all remaining pollutants maintain a positive carry-over balance and thus remain surplus value (Test 2) equivalent.

An explanation of the categories in the table is provided in Appendix D.

IX. Implications of 2020-2021 Offset Equivalency Demonstration

A. SOx, PM₁₀, PM_{2.5}, and CO

As demonstrated above, PM10, PM2.5, CO and SOx remain both Offset Quantity (Test 1) and Surplus Value (Test 2) equivalent. Therefore, there is no change to the offset quantity and ERC surplus value requirements at this time.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendices

- A. ERCs Reserved/Withdrawn During the 2020-2021 Tracking Period
- B. Surplus Reductions Generated by the District NSR Rule
 - B-1: ERCs Reserved or Withdrawn
 - B-2: ERCs Surrendered
 - B-3: AQID
- C. Adjustments to Offset Equivalency Carry-Over Balances
 - C-1: District Offset Quantity Adjustments
 - C-2: Federal Offset Quantity Adjustments
 - C-3: Surplus Adjustments Due to District Offset Quantity Adjustments
- D. Offset Equivalency Report Summary Table Glossary

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix A

ERCs Reserved/Withdrawn During the 2020-2021 Tracking
Period

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

2020-2021 Projects with ERCs Reserved/Withdrawn

Region	Facility ID	Project	Facility Name	ERC Certificate	Track Number	PM10	SOx
C	230	1202619	CAMPOS BROTHERS	C-1177-4	7399	0.2	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	N-1484-4	7400	1.7	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	N-1484-5	7402	0	0.3
N	1662	1200219	GALLO GLASS COMPANY	N-1516-4	7404	3.7	0
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	N-1551-4	7407	4.7	0
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	S-5166-5	7418	0	4.8
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	S-5205-5	7422	0	1.3
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	S-5207-4	7423	0.3	0

Field Key:

- [pollutant] – quantity of ERC provided to satisfy offset obligations (valued at time of banking)

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix B

Surplus Reductions Generated by the District NSR Rule

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix B-1

ERCs Reserved or Withdrawn

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

2020-2021 ERCs Reserved/Withdrawn Surplus Value

Region	Project	ERC Certificate	Track Number	PM10	PM2.5	SOx	Surplus PM10	Surplus PM2.5	Surplus SOx
C	1202619	C-1177-4	7399	0.2	0.0	0	0.2	0.0	0
S	1200729	N-1484-4	7400	6.2 ¹	1.6	0	6.2	1.6	0
S	1200729	N-1484-5	7402	0	0	0.3	0	0	0.3
N	1200219	N-1516-4	7404	3.7	3.4	0	0.2	0.2	0
S	1204327	N-1551-4	7407	4.7	4.2	0	4.7	4.2	0
S	1204327	S-5166-5	7418	0	0	4.8	0	0	4.8
S	1200729	S-5205-5	7422	0	0	1.3	0	0	0
S	1204327	S-5207-4	7423	0.3	0.3	0	0.3	0.3	0

Field Key:

- [pollutant] – quantity of ERC provided to satisfy offset obligations (valued at time of banking)
- Surplus [pollutant] – surplus value of ERC at time of ATC issuance (time of use)

¹ Additional creditable emission reductions (ERCs) were reserved/withdrawn for this project to satisfy PM2.5 ambient air quality analysis requirements in Rule 2201.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix B-2

ERCs Surrendered

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

2020-2021 ERCs Surrendered Surplus Value

Region	Project	ERC Certificate	Track Number	PM10	PM2.5	SOx	Surplus PM10	Surplus PM2.5	Surplus SOx
S	1210466	S-5218-5	7426	0	0	0.5	0	0	0.0

Field Key:

- [pollutant] – quantity of ERC surrendered (valued at time of banking)
- Surplus [pollutant] – surplus value of ERC at time of surrender (time of use)

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix B-3

AQID

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

AQID from ERCs issued in 2020-2021

Region	Facility ID	Project	Facility Name	Track Number	Surplus PM10	Surplus PM25	Surplus SOx
S	1392	1202740	BASF CORPORATION	7427	0.1	0.0	0.0

Field Key:

- Surplus [pollutant] – surplus value of ERC

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix C

Adjustments to Offset Equivalency Carry-Over Balances

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix C-1

District Offset Quantity Adjustments

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

District Offset Quantity Adjustments

Region	Facility ID	Project	DOQ SOx	DOQ PM10	DOQ PM25	adj DOQ SOx	adj DOQ PM10	adj DOQ PM25	Reason For Evaluation
S	1624	1193935	0.3	0.0	0.0	-0.3	0.0	0.0	Cancelled/Expired ATCs

Field Key:

- DOQ [pollutant] – initial District Offset Quantity used in equivalency system
- adj DOQ [pollutant] – adjustment necessary to initial District Offset Quantity; reflected in adjustment to the carry-over balance

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix C-2

Federal Offset Quantity Adjustments

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Federal Offset Quantity Adjustments

Region	Facility ID	Project	FOQ SOx	FOQ PM10	FOQ PM25	adj FOQ SOx	adj FOQ PM10	adj FOQ PM25	Reason For Evaluation
S	1624	1193935	0.0	0.0	0.0	0.0	0.0	0.0	Cancelled/Expired ATCs

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix C-3

Surplus Adjustments Due to District Offset Quantity Adjustments

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Surplus Adjustments Due to District Offset Quantity Adjustments

Adjustments to PM10 Surplus Carry-over:

None

Adjustments to PM2.5 Surplus Carry-over:

None

Adjustments to SOx Surplus Carry-over:

Region	Facility Id	Project	DOQ SOx	adj DOQ SOx	adj Percent	SOx Balance	SOx Used	adj Surplus SOx
S	1624	1193935	0.3	-0.3	-100.0%	0.0	0.0	0.0

Field Key:

- DOQ SOx – initial District Offset Quantity used in equivalency system
- adj DOQ SOx – adjustment necessary to initial District Offset Quantity; reflected in adjustment to the carry-over balance
- SOx Balance – value in surplus carry-over balance
- SOx Used – value previously used a surplus value mitigation in past equivalency demonstrations
- adj Surplus SOx – adjustment necessary to surplus carry-over balance to reflect DOQ adjustments

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Appendix D

Offset Equivalency Report Summary Tables Glossary

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

Offset Quantity Equivalency (Test 1) Summary Table Glossary

- **Number of New Major Sources**
This is the number of NMS projects that were finalized by the District during the current tracking period. Note that if a project was a NMS for multiple pollutants (i.e. PM10 and SOx), the project will be counted in all pollutant rows for which the source was a NMS and federal offsets were required.
- **Number of Federal Major Modifications**
This is the number of FMM projects that were finalized by the District during the current tracking period. Note that if a project triggered a FMM for multiple pollutants (i.e. PM10 and SOx), the project will be counted in all pollutant rows that triggered a FMM and federal offsets were required.
- **Offsets Required Under Federal NSR**
This is the amount of offsets required under the federal NSR offsetting program for the FMM and NMS projects finalized by the District during the tracking period.
- **Offsets Required Under District NSR**
This is the amount of offsets the District's NSR offsetting program required for the FMM and NMS projects finalized by the District during the tracking period.
- **Current Year Excess or Shortfall**
This value is the difference between the amount of offsets required under District NSR and the amount of offsets required under federal NSR. This value is only a comparison of the offsetting requirements for the FMM and NMS finalized by the District during the tracking period. If this value is positive, the District's NSR offsetting program required more offsets than what would have been required under Federal NSR for FMM and NMS projects finalized during the tracking period.
- **Previous Year-End Total Carry-over Excess or Shortfall**
This value represents the Year-End Total Carry-over Excess or Shortfall from the previous year's offset equivalency report.
- **Year-to-Year Adjustment to Carry-Over Balance**
This value is the total amount of adjustments made by the District following the previous year's offset equivalency report.
- **Year-End Total Carry-Over Excess or Shortfall**
This value is the difference between the total offsets required by the District's NSR offsetting program and the federal NSR offsetting program since the start of the offset equivalency demonstration. This value includes the current

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

tracking year's excess or shortfall and any adjustments that were made in the current equivalency report. If this value is positive, the District's NSR offsetting program has required more offsets than what would have been required under Federal NSR since the start of the offset equivalency demonstration, and the District has successfully demonstrated equivalency with Test 1.

Surplus Value Equivalency (Test 2) Summary Table Glossary

- **Number of New Major Sources**
This is the number of NMS projects that were finalized by the District during the current tracking period. Note that if a project was a NMS for multiple pollutants (i.e. PM10 and SOx), the project will be counted in all pollutant rows for which the source was a NMS and federal offsets were required.
- **Number of Federal Major Modifications**
This is the number of FMM projects that were finalized by the District during the current tracking period. Note that if a project triggered a FMM for multiple pollutants (i.e. PM10 and SOx), the project will be counted in all pollutant rows that triggered a FMM and federal offsets were required.
- **Offsets Required Under Federal NSR**
This is the amount of offsets required under the federal NSR offsetting program for the FMM and NMS projects finalized by the District during the tracking period.
- **Surplus Reductions Used for Equivalency This Year**
This is the amount of surplus reductions that were used in this year's equivalency demonstration to mitigate the surplus offsets quantity required under federal NSR for FMM and NMS projects finalized by the District during the current tracking period. Surplus reductions consist of reductions in the creditable reductions carry-over bank.
- **Current Year Excess or Shortfall**
This value is the difference between the amount of offsets required under federal NSR and the surplus reductions used for equivalency this year. A zero (0.0) value means the District's creditable reduction carry-over bank had more surplus reductions than the amount of offsets required under federal NSR for FMM and NMS projects finalized by the District during the current tracking period.

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

2020-2021 SJVAPCD Annual Offset Equivalency Report to the Federal EPA

- **Previous Year-End Total Carry-over Creditable Reductions**
This value represents the Year-End Total Carry-over Creditable Reductions from the previous year's offset equivalency report.
- **Year-to-Year Adjustment to Carry-Over Balance**
This value is the total amount of adjustments made by the District following the previous year's offset equivalency report.
- **Current Year New Creditable Reductions**
This value is the total amount of surplus reductions collected by the District for the current equivalency tracking period.
- **Year-End Total Carry-Over Creditable Reductions**
This value is the difference between the total surplus reductions generated by the District and the amount of surplus offsets required by FMM and NMS since the start of the offset equivalency demonstration. This value includes the current tracking year's excess or shortfall and any adjustments that were made in the current equivalency report. If this value is positive, the District's has generated more surplus reductions than what would have been required under Federal NSR since the start of the offset equivalency demonstration, and the District has successfully demonstrated equivalency with Test 2.