2020-2021 Annual Offset Equivalency Report

DRAFT

San Joaquin Valley APCD

DRAFT Annual Offset Equivalency Report

DRAFT Offset Quantity Equivalency

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

Pollutant	Number of New Major Sources		Offsets Required under Federal NSR	equired Required Inder under G ederal District N ISR NSR G		Previous Year-End Total Carryover Excess or Shortfall	Year-to- Year Adjustment to Carryover Balance	Year-End Total Carryover Excess or Shortfall	
			(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f)=(d)+(e)+(c)	
NOx	0	9	60.9	23.8	-37.1	353.1	-7.9	308.1	
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	
VOC ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Notes:

⁻ All values are in tons per year

¹ Effective November 20, 2020, VOC was no longer Offset Quantity equivalent and Rule 2201 remedy was enacted to require federal offset quantity ERCs for projects requiring VOC offsets under Rule 2201. Therefore, VOC are not included in Offset Quantity equivalency demonstration.

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DRAFT Annual Offset Equivalency Report

DRAFT Surplus Value Equivalency

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

Pollutant	Number of New Major Sources		Offsets Required under Federal NSR	Surplus Reductions Used for Equivalency This Year		over		Current Year New Creditable Reductions	
PM10	0	0	0.0	0.0	0.0	330.0	0.0	10.8	340.8
						711111			
PM2.5	0	0	0.0	0.0	0.0	197.0	0.0	6.1	203.1
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
1					I			1	
NOx ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
VOC ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

⁻ All values are in tons per year

¹ Effective September 17, 2020, NOx and VOC were no longer Surplus Value equivalent and Rule 2201 remedy was enacted to require surplus at time-of-use ERCs for projects requiring NOx and VOC offsets under Rule 2201. Therefore, these pollutants are not included in Surplus Value demonstration.

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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

VOC: Volatile Organic Compound

PM10: Particulate Matter (10 micron or less)
PM2.5: Particulate Matter (2.5 micron or less)

CO: Carbon Monoxide

SOx: Sulfur Oxide

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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?	NOx	voc	PM10	PM2.5	СО	SOx
Test 1: Offset Quantity	Yes	No	Yes	Yes	Yes	Yes
Test 2: Surplus Value	No	No	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 \$3 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

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state law to be one part of a comprehensive NSR permitting program that that has 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. <u>District Offset Equivalency Program</u>

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
- <u>Surplus Value (Test 2)</u> 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.

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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/currntrules/r2201.pdf.

B. <u>Public Advisory Workgroup</u>

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. 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 of 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.

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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.

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).

During this report's tracking period, there were sixteen (16) ATC projects that triggered a FMM. Of these sixteen (16) projects, four (4) projects were a FMM for NOx only, seven (7) projects were a FMM for VOC only, and five (5) were a FMM for both NOx and VOC. There were no projects finalized during this reporting period that triggered a FMM for SOx, PM10, or PM2.5.

Table 2: Federal Major Modification Projects

Tracking Period	NOx Only	VOC Only	NOx and VOC	SOx, PM10, or PM2.5	Total	
2020-2021	4	7	5	0	16	

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All FMM projects are individually identified in Appendix A.

C. <u>Total Federal Offset Quantity Required</u>

The total FOQ to be mitigated in this year's offset equivalency demonstration is shown in the table below:

Table 3: Total Federal Offsets Required (tpy)

Project Type	NOx	SOx	PM10	PM2.5	voc
NMS	0.0	0.0	0.0	0.0	0.0
FMM	60.9	0.0	0.0	0.0	23.9
Total	60.9	0.0	0.0	0.0	23.9

The amount of federal offsets required for projects finalized during this report's tracking period is used to determine both Offset Quantity (Test 1) and Surplus Value (Test 2) equivalency.

IV. District Offsets Required During 2020-2021 Tracking Period

During this report's tracking period, fifteen (15) ATC projects triggered offsets under the District's local NSR rule, and ERCs were required to satisfy the offsetting requirements for these projects.

Table 4: Total District Offsets Required (tpy)

NOx	NOx SOx		voc		
23.8	6.4	10.6	53.6		

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 B.

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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 5: 2020-2021 New Surplus Reduction Summary (tpy)

Category	NOx	SOx	PM10	PM2.5	VOC
ERC Reserved/Withdrawn	n/a	5.2	10.7	6.1	n/a
ERCs Surrendered	n/a	0.0	0.0	0.0	n/a
ERCs Newly Issued (AQID)	n/a	0.0	0.1	0.0	n/a
Orphan Shutdowns	n/a	0.0	0.0	0.0	n/a
BACT on Minor Sources	n/a	0.0	0.0	0.0	n/a
Total	n/a	5.2	10.8	6.1	n/a

A. Emission Reduction Credits Reserved/Withdrawn

During this report's tracking period, there were fifteen (15) ATC projects for which ERC certificates were reserved/withdrawn to satisfy the offsetting requirements of District Rule 2201.

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

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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 C-2.

C. <u>Air Quality Improvement Deduction</u>

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 C-3.

D. <u>Orphan Shutdowns</u>

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. <u>Actual Emission Reductions from Implementing BACT on Existing</u> 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.

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

	Category			PM10	PM2.5	VOC
(a)	Adjustments to (a) District Offset Quantity		-0.3	0.0	0.0	n/a
(b)	Adjustments to Federal Offset Quantity	-2.4	0.0	0.0	0.0	n/a
(c) = (a) - (b)	Net Adjustment to Unused Carry-over	-7.9	-0.3	0.0	0.0	n/a

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1. District and Federal Offset Quantity Adjustments

As VOC is no longer offset quantity (Test 1) equivalent, only adjustments are necessary for projects affecting the NOx, SOx, PM10, and PM2.5 offset quantity carry-over balances. For this year's offset equivalency demonstration, the District identified two (2) project entries 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 these project entries were adjusted, where necessary, and are reflected in the changes to the carry-over balances. Additional information on the two (2) adjusted projects is discussed below.

E & J Gallo Winery (Project N-1123806): The District issued an ATC and included the emissions in the tracking system for the installation of a digester gas operation during the 2012-2013 reporting period. However, the project was never implemented as proposed, the ATC expired and was cancelled.

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 D-1 and D-2.

B. <u>Surplus Creditable Reductions (Test 2) Carry-Over Balance Adjustments</u>

Table 7: Adjustments to Unused Surplus Carry-over Creditable Reductions (tpy)

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

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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

As NOx and VOC are no longer surplus value (Test 2) equivalent, only adjustments were necessary for projects affecting the surplus SOx, PM10, and PM2.5 carry-over balances. 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 these project 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 7 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 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 D-3.

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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.

Table 8: Offset Quantity Equivalency Demonstration (tpy)

Pollutant	Number of New Major Sources		Offsets Required under Federal NSR	Offsets Required under District NSR	Current Year Excess or Shortfall		Year-to- Year Adjustment to Carryover Balance	Year-End Total Carryover Excess or Shortfall
	2012-02-02-0		(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f)=(d)+(e)+(c)
NOx	0	9	60.9	23.8	-37.1	353.1	-7.9	308.1
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
VOC ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

NOx:

As shown in the table, there is a current year offset quantity shortfall for the current year. Following the year-to-year adjustments to the prior year carry-over balances, NO_X maintains a positive carry-over balance and thus remains offset quantity (Test 1) equivalent.

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.

⁻ All values are in tons per year

¹ Effective November 20, 2020, VOC was no longer Offset Quantity equivalent and Rule 2201 remedy was enacted to require federal offset quantity ERCs for projects requiring VOC offsets under Rule 2201. Therefore, VOC are not included in Offset Quantity equivalency demonstration.

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VOC:

Effective November 20, 2020, VOC was no longer offset quantity (Test 1) equivalent and is no longer evaluated for equivalency as all new major sources or federal major modification projects triggering offsets for VOC under 40 CFR 51.165 and part D of Title I of the CAA are required to satisfy the full federal offset quantity and ERCs used to satisfy the offset requirements must be surplus-at-time of ATC issuance.

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

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.

Table 9: Surplus Value Equivalency Demonstration (tpy)

Pollutant	Number of New Major Sources		Offsets Required under Federal NSR	Surplus Reductions Used for Equivalency This Year		over	•	Year New Creditable	Year-End Total Carry-over Creditable Reductions (g)=(d)+(e)+(c)+(f)
PM10	0	0	0.0	0.0	0.0	330.0	0.0	10.8	340.8
PM2.5	0	0	0.0	0.0	0.0	197.0	0.0	6.1	203.1
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
NOx ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
VOC ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

As discussed in the previous year's report, the system was no longer able to demonstrate equivalency with the surplus value test for NOx and VOC. Pursuant to the District's NSR rule, effective September 17, 2020, the Rule 2201 remedy was enacted and all ATCs requiring NOx or VOC offsets under the NSR rule for a new major source or federal major modification are now required to supply ERCs with sufficient "surplus at time of use" credit at the time of ATC issuance. Therefore, surplus value (Test 2) equivalency was not evaluated for NOx and VOC in this report.

⁻ All values are in tons per year

¹ Effective September 17, 2020, NOx and VOC were no longer Surplus Value equivalent and Rule 2201 remedy was enacted to require surplus at time-of-use ERCs for projects requiring NOx and VOC offsets under Rule 2201. Therefore, these pollutants are not included in Surplus Value demonstration.

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For the remainder of the pollutants, 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 E.

IX. Implications of 2020-2021 Offset Equivalency Demonstration

A. <u>VOC</u>

All new major sources or federal major modification projects triggering offsets for VOC under 40 CFR 51.165 and part D of Title I of the CAA are required to satisfy the full federal offset quantity and ERCs used to satisfy the offset requirements must be surplus-at-time of ATC issuance. There is no change to the VOC offset requirements since the prior-year report.

B. NOx

Any ATC requiring NOx 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.

As demonstrated above, NOx remains Offset Quantity (Test 1) equivalent. Therefore, there is no change to the offset quantity requirement at this time.

C. PM10, PM2.5, and SOx

As demonstrated above, PM10, PM2.5, 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.

Appendices

- A. NMS and FMM Projects Entered for the 2020-2021 Tracking Period
- B. ERCs Reserved/Withdrawn During the 2020-2021 Tracking Period
- C. Surplus Reductions Generated by the District NSR Rule
 - C-1: ERCs Reserved or Withdrawn
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- D. Adjustments to Offset Equivalency Carry-Over Balances
 - D-1: District Offset Quantity Adjustments
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- E. Offset Equivalency Report Summary Table Glossary

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Appendix A

NMS and FMM Projects Entered for the 2020-2021 Tracking Period

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2020-21 Federal Major Modification Projects

Region	Facility ID	Facility Name	Project	Track Number	Final Date	NOx FOQ	VOC FOQ	PM10 FOQ	PM25 FOQ	SOx FOQ
S	1328	BERRY PETROLEUM COMPANY LLC	1193430	7375	12/16/2019	3.5	3.2	0	0	0
С	629	O'NEILL BEVERAGES CO LLC	1191691	7383	09/24/2020	0	2.8	0	0	0
С	7748	OLAM SPICES	1203750	7384	05/24/2021	13.4	0	0	0	0
N	829	NUSTAR TERMINALS OPS PARTNERSHIP LP	1181193	7385	01/05/2021	0	4.9	0	0	0
N	1399	LIBERTY PACKING CO - THE MORNING STAR CO	1200345	7386	12/15/2020	4.1*	0	0	0	0
N	1665	BRONCO WINE COMPANY	1201116	7387	04/13/2021	0	0	0	0	0
N	1399	LIBERTY PACKING CO - THE MORNING STAR CO	1201405	7388	02/17/2021	13.5*	0	0	0	0
N	1399	LIBERTY PACKING CO - THE MORNING STAR CO	1203800	7389	04/21/2021	0.8*	0	0	0	0
N	2321	CBUS OPS INC (DBA WOODBRIDGE WINERY)	1204622	7390	05/26/2021	0	0.4	0	0	0
S	1372	SENTINEL PEAK RESOURCES CA LLC	1200016	7391	11/02/2020	0	0	0	0	0
S	37	KERN OIL & REFINING CO.	1200501	7392	08/04/2021	0	1.2	0	0	0
S	1372	SENTINEL PEAK RESOURCES CA LLC	1200729	7393	03/01/2021	3.4	1.7	0	0	0
S	1372	SENTINEL PEAK RESOURCES CA LLC	1201688	7394	09/22/2020	2.6	0.4	0	0	0
S	8452	CALIFORNIA RESOURCES PRODUCTION CORP	1202811	7395	07/06/2021	0	2.8	0	0	0
S	2234	CALIFORNIA RESOURCES ELK HILLS LLC	1203245	7396	07/12/2021	7.6	3.7	0	0	0
S	1372	SENTINEL PEAK RESOURCES CA LLC	1203797	7397	07/12/2021	5.1	1	0	0	0
S	1372	SENTINEL PEAK RESOURCES CA LLC	1204327	7398	06/09/2021	10.4	5	0	0	0

^{*} The amount of federal offsets required to be tracked for equivalency purposes for each of these projects has been revised. The federal offsets required to be tracked for equivalency purposes for these projects were originally inaccurately calculated based off of a Specific Limiting Condition that limited the combined potential emissions of several units not included in the projects, which was greater than the full potential of the new units. The revised quantity of federal offsets required are based on the full potential emissions of the new units in each project, times the federal offset ratio (1.5). This calculation methodology is consistent with the requirements of 40 CFR 51.165(a)(3)(ii)(J) and 40 CFR 51.165(a)(9)(ii)(E). This revision only affects the amount of federal offsets required to be tracked for equivalency purposes and does not impact any conditions of approval for the projects.

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Appendix B

ERCs Reserved/Withdrawn During the 2020-2021 Tracking Period

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2020-2021 Projects with ERCs Reserved/Withdrawn

	Facility			ERC	Track				
Region	ID	Project	Facility Name	Certificate	Number	NOx	VOC	PM10	SOx
С	230	1202619	CAMPOS BROTHERS	C-1177-4	7399	0	0	0.2	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	N-1484-4	7400	0	0	1.7	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	N-1484-2	7401	1.5	0	0	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	N-1484-5	7402	0	0	0	0.3
N	2321	1204622	CBUS OPS INC (DBA WOODBRIDGE WINERY)	C-1516-1	7403	0	0.4	0	0
N	1662	1200219	GALLO GLASS COMPANY	N-1516-4	7404	0	0	3.7	0
N	829	1181193	NUSTAR TERMINALS OPS PARTNERSHIP LP	C-1519-1	7405	0	4.9	0	0
N	8234	1191493	DIAMOND PET FOOD PROCESSORS OF RIPON	N-1525-2	7406	10	0	0	0
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	N-1551-4	7407	0	0	4.7	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	N-1553-1	7408	0	1.7	0	0
S	1372	1203797	SENTINEL PEAK RESOURCES CA LLC	N-1553-1	7409	0	1	0	0
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	N-1553-1	7410	0	5	0	0
S	8452	1202811	CALIFORNIA RESOURCES PRODUCTION CORP	S-1722-1	7411	0	4.2	0	0
S	9168	1200348	ELK HILLS POWER LLC	S-3951-1	7412	0	24.2	0	0
S	2234	1202756	CALIFORNIA RESOURCES ELK HILLS LLC	S-4196-1	7413	0	0.1	0	0
S	8452	1202811	CALIFORNIA RESOURCES PRODUCTION CORP	S-4470-1	7414	0	5.8	0	0
S	2234	1203245	CALIFORNIA RESOURCES ELK HILLS LLC	S-4747-1	7415	0	4.2	0	0
S	2234	1203245	CALIFORNIA RESOURCES ELK HILLS LLC	S-5003-1	7416	0	1.9	0	0
S	1547	1200351	AERA ENERGY LLC	S-5082-1	7417	0	6.2	0	0
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	S-5166-5	7418	0	0	0	4.8
N	9371	1204384	MCMANIS FAMILY VINEYARDS	S-5170-1	7419	0	1.2	0	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	S-5203-2	7420	1.9	0	0	0

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	Facility			ERC	Track				
Region	ID	Project	Facility Name	Certificate	Number	NOx	VOC	PM10	SOx
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	S-5203-2	7421	10.4	0	0	0
S	1372	1200729	SENTINEL PEAK RESOURCES CA LLC	S-5205-5	7422	0	0	0	1.3
S	1372	1204327	SENTINEL PEAK RESOURCES CA LLC	S-5207-4	7423	0	0	0.3	0
S	2234	1202756	CALIFORNIA RESOURCES ELK HILLS LLC	S-5210-1	7424	0	0.7	0	0
S	37	1200501	KERN OIL & REFINING CO.	S-5213-1	7425	0	2.2	0	0

Field Key:

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

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Appendix C

Surplus Reductions Generated by the District NSR Rule

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Appendix C-1

ERCs Reserved or Withdrawn

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2020-2021 ERCs Reserved/Withdrawn Surplus Value

Region	Project	ERC Certificate	Track Number	NOx	voc	PM10	PM2.5	SOx	Surplus NOx	Surplus VOC	Surplus PM10	Surplus PM2.5	Surplus SOx
С	1202619	C-1177-4	7399	0	0	0.2	0.0	0	0	0	0.2	0.0	0
S	1200729	N-1484-4	7400	0	0	6.2	1.6	0	0	0	5.3	1.4	0
S	1200729	N-1484-2	7401	1.5	0	0	0	0	0	0	0	0	0
S	1200729	N-1484-5	7402	0	0	0	0	0.3	0	0	0	0	0.3
N	1204622	C-1516-1	7403	0	0.4	0	0	0	0	0	0	0	0
N	1200219	N-1516-4	7404	0	0	0.2	0.2	0	0	0	0.2	0.2	0
N	1181193	C-1519-1	7405	0	4.9	0	0	0	0	0	0	0	0
N	1191493	N-1525-2	7406	10	0	0	0	0	0	0	0	0	0
S	1204327	N-1551-4	7407	0	0	4.7	4.2	0	0	0	4.7	4.2	0
S	1200729	N-1553-1	7408	0	1.7	0	0	0	0	0	0	0	0
S	1203797	N-1553-1	7409	0	1	0	0	0	0	0	0	0	0
S	1204327	N-1553-1	7410	0	5	0	0	0	0	0	0	0	0
S	1202811	S-1722-1	7411	0	4.2	0	0	0	0	0	0	0	0
S	1200348	S-3951-1	7412	0	24.2	0	0	0	0	0	0	0	0
S	1202756	S-4196-1	7413	0	0.1	0	0	0	0	0	0	0	0
S	1202811	S-4470-1	7414	0	5.8	0	0	0.3	0	0	0	0	0
S	1203245	S-4747-1	7415	0	4.2	0	0	0	0	0	0	0	0
S	1203245	S-5003-1	7416	0	1.9	0	0	0	0	0	0	0	0
S	1200351	S-5082-1	7417	0	6.2	0	0	0	0	0	0	0	0
S	1204327	S-5166-5	7418	0	0	0	0	0	0	0	0	0	4.8
N	1204384	S-5170-1	7419	0	1.2	0	0	0	0	0	0	0	0

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Region	Project	ERC Certificate	Track Number	NOx	VOC	PM10	PM2.5	SOx	Surplus NOx	Surplus VOC	Surplus PM10	Surplus PM2.5	Surplus SOx
S	1200729	S-5203-2	7420	1.9	0	0	0	0	0	0	0	0	0
S	1204327	S-5203-2	7421	10.4	0	0	0	0	0	0	0	0	0
S	1200729	S-5205-5	7422	0	0	0	0	1.3	0	0	0	0	0
S	1204327	S-5207-4	7423	0	0	0.3	0.3	0	0	0	0.3	0.3	0
S	1202756	S-5210-1	7424	0	0.7	0	0	0	0	0	0	0	0
S	1200501	S-5213-1	7425	0	2.2	0	0	0	0	0	0	0	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)

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Appendix C-2

ERCs Surrendered

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2020-2021 ERCs Surrendered Surplus Value

Regio	n Project	ERC Certificate	Track Number	NOx	voc	PM10	PM2.5	SOx	Surplus NOx	Surplus VOC	Surplus PM10	Surplus PM2.5	Surplus SOx
S	1210466	S-5218-5	7426	0	0	0	0	0.5	0	0	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)

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Appendix C-3

AQID

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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

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Appendix D

Adjustments to Offset Equivalency Carry-Over Balances

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Appendix D-1

District Offset Quantity Adjustments

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District Offset Quantity Adjustments

Region	Facility ID	Project	DOQ NOx	DOQ SOx	DOQ PM10	DOQ PM25	DOQ VOC	adj DOQ NOx	adj DOQ SOx	adj DOQ PM10	adj DOQ PM25	adj DOQ VOC	Reason For Evaluation
N	1237	1123806	2.4	0.0	0.0	0.0	0.1	-2.4	0.0	0.0	0.0	-0.1	Cancelled/Expired ATCs
S	1624	1193935	7.9	0.3	0.0	0.0	0.0	-7.9	-0.3	0.0	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

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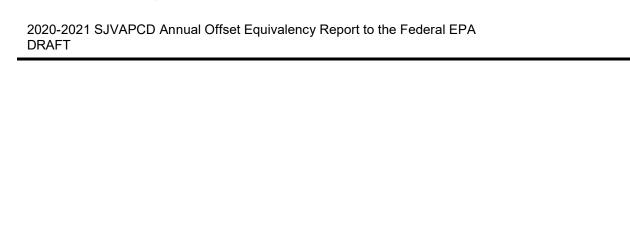
Appendix D-2

Federal Offset Quantity Adjustments

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Federal Offset Quantity Adjustments

Region	Facility ID	Project	FOQ NOx	FOQ SOx	FOQ PM10	FOQ PM25	FOQ VOC	adj FOQ NOx	adj FOQ SOx	adj FOQ PM10	adj FOQ PM25	adj FOQ VOC	Reason For Evaluation
N	1237	1123806	2.4	0.0	0.0	0.0	0.0	-2.4	0.0	0.0	0.0	0.0	Cancelled/Expired ATCs
S	1624	1193935	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Cancelled/Expired ATCs



Appendix D-3

Surplus Adjustments Due to District Offset Quantity Adjustments

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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

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Appendix E

Offset Equivalency Report Summary Tables Glossary

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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. NOx and VOC), 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. NOx and VOC), 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

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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 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. NOx and VOC), 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. NOx and VOC), 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.

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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.