

BOARD MEETING DATE: February 3, 2023

AGENDA NO. 11

REPORT: Status Report on Regulation XIII – New Source Review

SYNOPSIS: This report presents the state and federal Preliminary Determination of Equivalency for January 2021 through December 2021. The report provides information regarding the status of Regulation XIII – New Source Review (NSR) in meeting state and federal NSR requirements and shows that South Coast AQMD’s NSR program is in preliminary compliance with applicable state and federal requirements from January 2021 through December 2021.

COMMITTEE: Stationary Source, January 20, 2023, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

JA:JW:DO:GLSKT

Summary

South Coast AQMD’s New Source Review rules and regulations are designed to ensure that emission increases from new and modified sources do not interfere with efforts to attain and maintain the state and federal ambient air quality standards, while economic growth in the South Coast region is not unnecessarily impeded. Regulation XIII - New Source Review, regulates and accounts for all emission changes (both increases and decreases) from the permitting of new, modified, and relocated stationary sources within South Coast AQMD’s jurisdiction, excluding NO_x and SO_x sources that are subject to Regulation XX – Regional Clean Air Incentives Market (RECLAIM).¹

¹ While the RECLAIM program is different than command and control rules for NO_x and SO_x and provides greater regulatory flexibility to business, its NSR requirements, as specified in Rule 2005, are designed to comply with the governing principles of NSR contained in the federal Clean Air Act (CAA) and the California State Health and Safety Code.

Rule 1315 – Federal New Source Review Tracking System, was adopted by the Board on February 4, 2011, to maintain South Coast AQMD’s ability to issue permits to major sources that require offsets but obtain offset credits from South Coast AQMD’s Priority Reserve under Rule 1309.1 - Priority Reserve, and/or that are exempt from offsets under South Coast AQMD Rule 1304 - Exemptions. Since these sources are not exempt from offsets under the federal Clean Air Act, South Coast AQMD provides offsets from South Coast AQMD’s internal account balances, which have been generated primarily from orphan shutdowns (*i.e.*, emissions reductions from sources that have shut down but did not apply for emission reduction credits). The purpose of this Determination of Equivalency is to show that there are sufficient offsets in the internal account balances to cover sources that used these offsets for the year in question and the offset needs projected for the following two years.

Rule 1315 requires that, commencing with calendar year 2010, and for each calendar year thereafter, the Executive Officer prepare a Preliminary Determination of Equivalency (PDE) and Final Determination of Equivalency (FDE), which cover NSR activities for twelve-month periods. The calendar year 2021 PDE and FDE are required to be reported to the South Coast AQMD Board at the February and September 2023 Board meetings, respectively. Rule 1315 also requires the Executive Officer to aggregate and track offsets debited from and deposited to South Coast AQMD’s internal offset accounts for specified periods between October 1, 1990, and December 31, 2005 and each calendar year from 2006 through 2030 for the purpose of making periodic determinations of compliance. The last annual report submitted to the Board on September 2, 2022, presented the FDE for calendar year 2020 and demonstrated that South Coast AQMD’s NSR program met the state and federal offset requirements for calendar year 2020.

This report, which presents the PDE covering the calendar year 2021 reporting period, demonstrates compliance with state and federal NSR requirements by establishing aggregate equivalence with state and federal offset requirements for sources that were not exempt from state and federal offset requirements, but were either exempt from offsets or obtained their offsets from South Coast AQMD pursuant to Regulation XIII.

The federal offset account PDE for calendar year 2021 is summarized in Table 1. Projections of South Coast AQMD’s federal offset account balances for January 2022 through December 2022 and January 2023 through December 2023, as specified and required pursuant to Rule 1315(e), are presented in Table 2. These tables demonstrate that there were, and project that there will be, adequate offsets available to mitigate all applicable emission increases during these reporting periods. The state offset accounts for calendar year 2021 are summarized in Table 3. This report demonstrates that, for calendar years 2021 through 2023, South Coast AQMD’s NSR program continues and

is projected to meet state and federal offset requirements and is equivalent² to those requirements on an aggregate basis. The South Coast Air Basin and Coachella Valley are designated as being in attainment with the federal and state CO standards, and therefore South Coast AQMD does not report CO accumulated credits and account balances in this equivalency determination. U.S. EPA designated the South Coast Air Basin as being in attainment with the federal PM10 standard effective July 26, 2013. However, the Coachella Valley has not attained the PM10 National Ambient Air Quality Standards (NAAQS), therefore, South Coast AQMD will continue to track and report PM10 (in the South Coast Air Basin) accumulated credits and account balances for informational purposes only.³

Table 1
Federal Offset Accounts PDE for January 2021 through December 2021

DESCRIPTION	VOC	NOx	SOx	PM10
2020 Actual Ending Balance^a (tons/day)	115.55	24.69	5.35	17.74
2021 Discount of Credits for Surplus Adjustment ^b (tons/day)	0.00	-0.12	0.00	0.00
2021 Starting Balance (tons/day)	115.55	24.57	5.35	17.74
2021 Actual Total Debits ^c (lbs./day)	-300	-377	0	-21
2021 Actual Total Debits^c (tons/day)	-0.15	-0.19	0.00	-0.01
2021 Actual Total Credits ^d (lbs./day)	0	0	0	0
2021 Actual Total Credits^d (tons/day)	0.00	0.00	0.00	0.00
2021 Preliminary Ending Balance^e (tons/day)	115.40	24.38	5.35	17.73

^a Previously reported in Table 1 of the 2020 FDE dated September 2, 2022.

^b This adjustment is surplus at the time of use discount, which is also discussed in Rule 1315(c)(4).

^c For an explanation of the sources of debits please refer to page 8 as well as Rule 1315(c) and the February 4, 2011, Rule 1315 staff report. Debits are shown as negative.

^d PDE does not account for any credits for calendar year 2021. Credits will be included in the 2021 FDE.

^e Represents the “2020 Actual Ending Balance” reduced by any surplus adjustments and the sum of actual debits.

² South Coast AQMD’s NSR program is deemed to be equivalent to state and federal offset requirements. South Coast AQMD’s ending offset account balances remained positive, indicating there were adequate offsets during this reporting period.

³ Rule 1315 does not distinguish accumulated credits and account balances between designated areas.

Table 2
Projections of South Coast AQMD’s Federal Offset Account Balances for
January 2022 through December 2022, and
January 2023 through December 2023

DESCRIPTION	VOC	NO _x	SO _x	PM ₁₀
2021 Preliminary Ending Balance^a (tons/day)	115.40	24.38	5.35	17.73
2022 Total Projected Debits ^b (lbs./day)	-740	-420	-120	-360
2022 Total Projected Credits ^b (lbs./day)	6,480	1,480	620	1,480
2022 Sum of Projected Debits/Credits^b (lbs./day)	5,740	1,060	500	1,120
2022 Sum of Projected Debits/Credits^b (tons/day)	2.87	0.53	0.25	0.56
2022 Projected Ending Balance^c (tons/day)	118.27	24.91	5.60	18.29
2023 Total Projected Debits ^b (lbs./day)	-740	-420	-120	-360
2023 Total Projected Credits ^b (lbs./day)	6,480	1,480	620	1,480
2023 Sum of Projected Debits/Credits^b (lbs./day)	5,740	1,060	500	1,120
2023 Sum of Projected Debits/Credits^b (tons/day)	2.87	0.53	0.25	0.56
2023 Projected Ending Balance^d (tons/day)	121.14	25.44	5.85	18.85

^a “2021 Preliminary Ending Balance” is as shown in Table 1.

^b Projections are based upon the average of the total annual debits and the average of the total annual credits for the five reporting periods most recently included in a PDE or an FDE, pursuant to Rule 1315(e). For an explanation of the sources of debits and credits please refer to page 8 as well as Rule 1315(c) and the Rule 1315 staff report. Debits are shown as negative and credits as positive, while the sum of debits/credits are shown as negative or positive, as appropriate.

^c “2022 Projected Ending Balance” equals the “2021 Preliminary Ending Balance” plus the “2022 Sum of Projected Debits/Credits.”

^d “2023 Projected Ending Balance” equals the “2022 Projected Ending Balance” plus the “2023 Sum of Projected Debits/Credits.”

Table 3

State Offset Accounts PDE for January 2021 through December 2021

DESCRIPTION	VOC	NO_x	SO_x	PM₁₀
2021 Actual Starting Balance^a (tons/day)	87.88	35.71	10.05	23.59
2021 Actual Total Debits ^b (lbs./day)	-1,987	-831	-90	-54
2021 Actual Total Credits ^c (lbs./day)	0.00	0.00	0.00	0.00
2021 Sum of Actual Debits/Credits^c (lbs./day)	-1,987	-831	-90	-54
2021 Sum of Actual Debits/Credits^c (tons/day)	-0.99	-0.42	-0.05	-0.03
2021 Actual Ending Balance^d (tons/day)	86.89	35.29	10.00	23.56

^a “2021 Actual Starting Balance” was previously reported (“2020 Actual Ending Balance”) in Table 5 of the 2020 FDE dated September 2, 2022.

^b For an explanation of the sources of debits and credits please refer to pages 8 and 9. Debits and shown as negative and credits as positive, while the sums of debits/credits are shown as positive or negative, as appropriate.

^c PDE does not account for any credits for calendar year 2021. Credits will be included in the 2021 FDE.

^d “2021 Actual Ending Balance” equals the “2021 Actual Starting Balance” plus the “2021 Sum of Actual Debits/Credits.”

Background

South Coast AQMD originally adopted its NSR program in 1976. U.S. EPA approved South Coast AQMD’s NSR program into the SIP initially on January 21, 1981 (46FR5965) and again on December 4, 1996 (61FR64291). U.S. EPA approved the May 3, 2002, Rule 1309.1 amendments into the SIP on June 19, 2006 (71FR35157). The original program has evolved into the current version of the Regulation XIII rules in response to state and federal legal requirements and the changing needs of the local environment and economy. Amendments to the NSR rules were adopted by the Board on December 6, 2002, to facilitate and provide additional options for credit generation and use. Rule 1315 was adopted and re-adopted on September 8, 2006, and August 3, 2007. Rule 1309.1 was amended and replaced on September 8, 2006, and August 3, 2007, respectively. On November 3, 2008, in response to a lawsuit filed by a group of environmental organizations, a California State Superior Court Judge in the County of Los Angeles invalidated the August 3, 2007 adopted Rule 1315 and amendments to Rule 1309.1, and prohibited South Coast AQMD from taking any action to implement Rule 1315 or the amendments to Rule 1309.1 until it had prepared a new environmental assessment under CEQA. On February 4, 2011, South Coast AQMD adopted a revised and enhanced version of Rule 1315, which included a new CEQA environmental assessment. U.S. EPA approved Rule 1315 into SIP in 2012 (77FR31200), and this approval was upheld by the U.S. Court of Appeals for the Ninth Circuit Court in 2015.

South Coast AQMD's computerized emission tracking system is used to demonstrate equivalence with state and federal offset requirements on an aggregate basis. Specific NSR requirements of federal law are presented below.

Federal Law

Federal NSR requirements vary with respect to the area's attainment status and classification. Based on the current classification for the 1997 8-hour ozone standard, the South Coast Air Basin and the Riverside County portion of the Salton Sea Air Basin (also known as the Coachella Valley) are both extreme nonattainment areas.⁴ For the 2008 and 2015 8-hour ozone standards, South Coast Air Basin and Coachella Valley are classified as extreme nonattainment and severe nonattainment, respectively.⁵ As the NSR requirements are more stringent for a higher nonattainment classification and the more stringent requirements apply, both South Coast Air Basin and Coachella Valley must comply with the requirements for extreme nonattainment areas for ozone precursors (*i.e.*, VOC and NOx). During the 2021 equivalency period, both the South Coast Air Basin and the Coachella Valley complied with their respective requirements for ozone nonattainment and serious nonattainment for PM10 and its precursors (*i.e.*, VOC, NOx and SOx).⁶ Coachella Valley is considered in attainment for CO. U.S. EPA designated the South Coast Air Basin in attainment with federal CO standards on June 11, 2007. Starting calendar year 2017, South Coast AQMD stopped reporting CO accumulated credits, debits, and account balances in the equivalency determination. Both South Coast Air Basin and Coachella Valley are considered in attainment for SO2 and NO2; however, SOx and NOx are precursors to pollutants for which both South Coast Air Basin and Coachella Valley are designated as in nonattainment.⁷ The non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin (MDAB) under South Coast AQMD's jurisdiction is unclassifiable. Federal law requires the use of Lowest Achievable Emission Rate (LAER) and offsets for emissions of nonattainment pollutants (or their precursors) for new, modified, and relocated

⁴ In 2019, the SSAB (Coachella Valley) was redesignated to extreme nonattainment for the 1997 8-hour ozone standard.

⁵ South Coast AQMD requested to reclassify the Coachella Valley's nonattainment status from "severe" to "extreme" for the 2008 and 2015 8-hour ozone standards. The Board adopted a voluntary reclassification request for the 2008 ozone standard on November 4, 2022. The 2022 AQMP adopted by the Board on December 2, 2022 included a reclassification request for the 2015 8-hour ozone standard.

⁶ As of July 26, 2013, SOCAB was redesignated as attainment for the federal 24-hour PM10 standard and U.S. EPA approved a PM10 maintenance plan. South Coast AQMD will continue to track and report PM10 accumulated credits and account balances for informational purposes only in the SOCAB and for equivalency in the SSAB (Coachella Valley).

⁷ SOx is a precursor to PM10 and NOx is a precursor to both PM10 and ozone.

stationary sources, when the source is considered a major stationary source⁸ for the nonattainment pollutants (or their precursors). This report demonstrates compliance with the federal NSR offsets requirements.

State Law

State law requires the use of BACT for new and modified sources (Health and Safety Code Sections 40440(b)(1) and 40920.5) and "no net increase in emissions" from certain permitted new or modified sources based on their potential to emit and the nonattainment classification of the area in which they are located. This report demonstrates South Coast AQMD's compliance with the "no net emission increase" requirements of state law for the 2021 period by demonstrating compliance with the requirements for extreme ozone nonattainment areas for ozone precursors and with the requirements for serious nonattainment areas for PM10 and precursors to PM10. The South Coast Air Basin was designated as being in attainment with the state CO standards effective June 11, 2007.

Overview of Analysis Methodology

The two most important elements of state and federal nonattainment NSR requirements are BACT/LAER and emission offsetting. As set forth in South Coast AQMD's BACT Guidelines, South Coast AQMD's BACT requirements are at least as stringent as federal LAER for major sources and state BACT requirements for all sources. The NSR emission offset requirements that South Coast AQMD implements through its permitting process ensure that sources provide emission reduction credits (ERCs) to offset their emission increases in compliance with state and federal requirements. As a result, these sources each comply with state and federal offset requirements by providing ERCs. However, certain sources are exempt from South Coast AQMD's offset requirements pursuant to Rule 1304 or qualify for offsets from South Coast AQMD's Community Bank (applications received between October 1, 1990 and February 1, 1996 only) or Priority Reserve, both pursuant to Rule 1309.1. Providing offset exemptions and the Priority Reserve (as well as the previously administered Community Bank) are important to the NSR program and the local economy. Therefore, South Coast AQMD has assumed the responsibility of providing the necessary offsets

⁸ The major stationary source thresholds for South Coast Air Basin, Coachella Valley, and non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin, based on their attainment status during the calendar year 2021 reporting periods are summarized below:

Pollutant	South Coast Air Basin	Coachella Valley	Non-Palo Verde, Riverside County Portion of Mojave Desert Air Basin
VOC	10 tons/year	10 tons/year	100 tons/year
NOx	10 tons/year	10 tons/year	100 tons/year
SOx	70 tons/year	70 tons/year	100 tons/year
PM10	70 tons/year	70 tons/year	100 tons/year
CO	50 tons/year	100 tons/year	100 tons/year

for exempt sources, the Priority Reserve, and the Community Bank. This report examines withdrawals from South Coast AQMD emission offset accounts during calendar year 2021 and demonstrates programmatic equivalence on an aggregate basis with state and federal emission offset requirements for the sources exempt from providing offsets and the sources that receive offsets from the Priority Reserve or the Community Bank.

South Coast AQMD's Offset Accounts

For the purposes of this report, federal debit and credit accounting for South Coast AQMD offset accounts was conducted pursuant to the same procedures previously agreed to by U.S. EPA and as delineated in Rule 1315 and described in the staff report dated January 7, 2011. Each of the pollutants subject to offset requirements has a separate federal offset account. State debit and credit accounting for South Coast AQMD offset accounts was similarly conducted, with the difference that state offset requirements apply to all increases of VOC or NO_x from equipment subject to South Coast AQMD's permitting program and to increases of SO_x and PM₁₀ from facilities that emit 15 or more tons per year. South Coast AQMD's NSR program is considered to provide equivalent or greater offsets of emissions as required by state and federal requirements for each subject pollutant provided the balance of offsets in South Coast AQMD's state and federal offset account for each pollutant remains positive, indicating that there were adequate offsets available.

Debit Accounting

Staff tracks all emission increases that are offset through the Priority Reserve or the Community Bank, as well as all increases that are exempt from offset requirements pursuant to Rule 1304 exemptions. These increases are debited from South Coast AQMD's federal offset accounts when they occur at major sources. For federal equivalency demonstrations, South Coast AQMD uses an offset ratio of 1.2-to-1.0 for extreme nonattainment pollutants (ozone and ozone precursors, *i.e.*, VOC and NO_x) and uses 1.0-to-1.0 for all other nonattainment pollutants (non-ozone precursors, *i.e.*, SO_x and PM₁₀) to offset any such increases. That is, 1.2 pounds are deducted from South Coast AQMD offset accounts for each pound of maximum allowable permitted potential to emit VOC or NO_x increase at a major source and 1.0 pound is deducted for each pound of maximum allowable permitted potential to emit SO_x or PM₁₀ at a major source. A more detailed description of federal debit accounting is provided in the Rule 1315 staff report dated January 7, 2011, and Rule 1315(c)(2).

To comply with U.S. EPA's NSR Reform requirements applicable to extreme nonattainment areas for ozone, the South Coast AQMD tracks changes to facility-wide limits under Rule 1304 – Exemptions and debits any increases from the federal offset accounts accordingly.

State offset requirements are based on actual emissions rather than maximum allowable permitted potential to emit. South Coast AQMD methodology uses actual emissions as eighty percent of permitted potential to emit.⁹ Thus, 0.8 pounds is debited from South Coast AQMD's state accounts for each pound of maximum allowable permitted emissions increase.

Credit Accounting

When emissions from a permitted source are permanently reduced (*e.g.*, installation of control equipment, removal of the source) and the emission reduction is not required by rule or law and is not included in an AQMP control measure that has been assigned a target implementation date,¹⁰ the permit holder may apply for ERCs for the pollutants reduced. If the permit holder for the source generating the emission reduction had previously received offsets from South Coast AQMD or has a "positive NSR balance" (*i.e.*, pre-1990 net emission increase), the quantity of South Coast AQMD offsets used or the amount of the positive NSR balance is subtracted from the reduction and "paid back" to South Coast AQMD's accounts prior to issuance of an ERC pursuant to Rule 1306. In certain other cases, permit holders do not always submit applications to claim ERCs or do not qualify to obtain ERCs for their equipment shutdowns or other eligible emission reductions. These unclaimed reductions are referred to as "orphan shutdowns" and are deposited in South Coast AQMD's offset accounts. ERCs provided as offsets by major sources in excess of the applicable federally required offset ratio and all ERCs provided as offsets by minor sources not subject to federal offset requirements are also deposited in South Coast AQMD's federal offset accounts. A more detailed description of federal credit accounting is provided in Rule 1315(c)(3)(A) and its staff report dated January 7, 2011.

Determination of Equivalency with Federal Offset Requirements

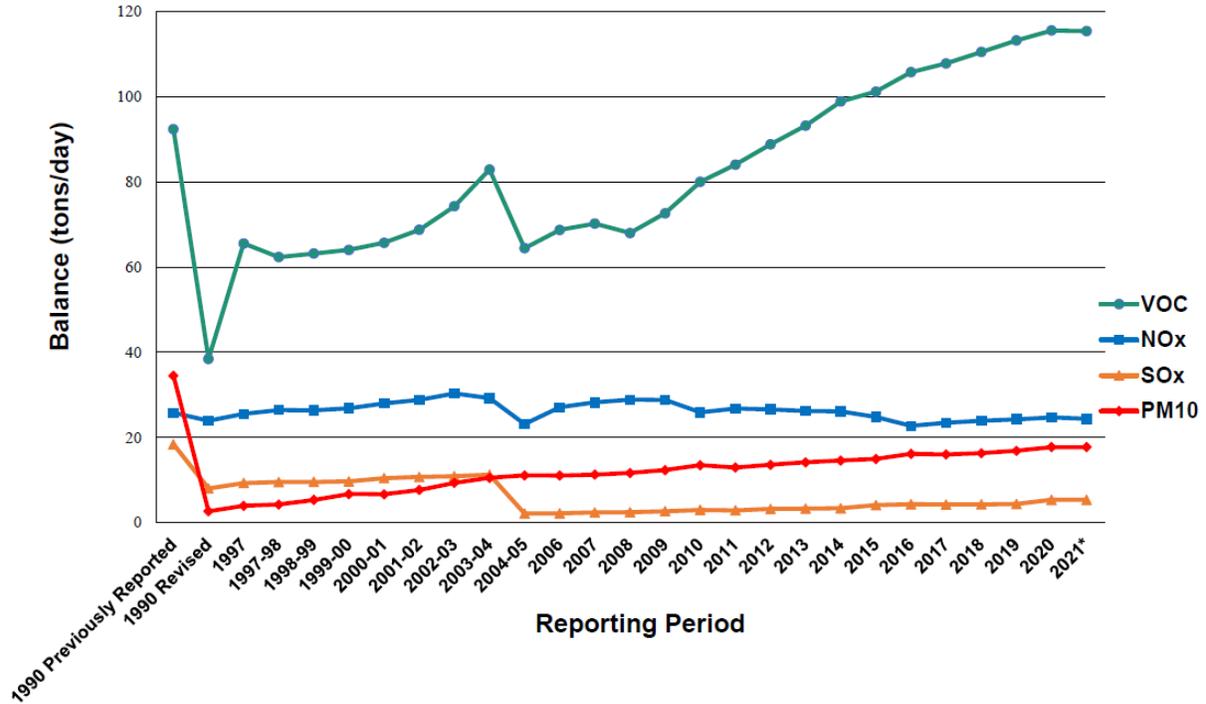
Figure 1 illustrates South Coast AQMD's federal offset account balances for calendar years 1990 and after.¹¹ The calendar year 2021 balances are based on preliminary determinations.

⁹ See Status Report on Regulation XIII – New Source Review dated April 2, 2004.

¹⁰ Refer to Rule 1309(b) for a complete explanation of eligibility requirements.

¹¹ The 1990 and 2005 drops in federal account balances are due to the initial removal of pre-1990 balance and the 2005 removal of the remaining pre-1990 balance.

**Figure 1:
South Coast AQMD's Federal Offset
Account Balances (1990 – 2021*)**



*Preliminary determination

The federal offset requirements PDE for calendar year 2021 and the projections for calendar years 2022 and 2023 are summarized in Tables 1 and 2, respectively. The detailed listing of actual final withdrawals, deposits and sum of withdrawals and deposits are shown in Tables A and B of the Attachment to this letter; the account balances shown in Tables A and B reflect the tracking sequence described under Rule 1315(c)(5).

Conclusions

The analysis presented in this report demonstrates the following:

- For calendar year 2021, South Coast AQMD's NSR program provided equivalent offsets to those required by state and federal NSR requirements. The program is at least preliminarily equivalent to the state and federal requirements on an aggregate basis. This conclusion is based on the fact that the preliminary ending state and federal offset account balances for the calendar year reporting period, as shown in Tables 1 and 3, remained positive for all pollutants.

- South Coast AQMD's projected federal offset account balances for 2022 and 2023 are projected to remain positive. This means that the sum of the estimated withdrawals from and deposits to South Coast AQMD's offset accounts during 2022 and 2023 are projected to remain positive and, therefore, demonstrates that South Coast AQMD's NSR program is equivalent to federal NSR requirements, as shown in Table 2.

Attachment

Detailed listing of Actual Debits and Sum of Debits and Credits

ATTACHMENT

Detailed listing of Actual Debits and Sum of Debits and Credits.

Table A
Total Actual Debits from South Coast AQMD's Federal Offset Accounts
(January 2021 through December 2021)

DISTRICT OFFSETS USED	VOC	NO _x	SO _x	PM ₁₀
Priority Reserve (lbs./day)	-137	-167	0	-21
Community Bank (lbs./day)	0	0	0	0
Rule 1304 Exemptions (lbs./day)	-113	-147	0	0
Sum Total of South Coast AQMD Offsets (lbs./day)	-250	-314	0	-21
1.2-to-1.0 Offset Ratio (lbs./day)	-50	-63	NA	NA
Total Actual Debits to South Coast AQMD Account (lbs./day)	-300	-377	0	-21
Total Actual Debits to South Coast AQMD Account (tons/day)	-0.15	-0.19	0.00	-0.01

Table B
Sum of Preliminary Debits/Credits Activities in
South Coast AQMD's Federal Offset Accounts
(January 2021 through December 2021)

	VOC	NO _x	SO _x	PM ₁₀
Total Actual Debits* (lbs./day)	-300	-377	0	-21
Total Actual Credits* (lbs./day)	0	0	0	0
Sum of Actual Debits (-)/Credits (+)* (lbs./day)	-300	-377	0	-21
Sum of Actual Debits (-)/Credits (+)* (tons/day)	-0.15	-0.19	0	-0.01

* Debits are shown as negative and credits as positive, while their sum is shown as negative or positive, as appropriate. No credits are accounted for in the Preliminary Determination of Equivalency analysis.