

BOARD MEETING DATE: February 7, 2020

AGENDA NO. 24

REPORT: Status Report on Regulation XIII – New Source Review

SYNOPSIS: This report presents the federal Preliminary Determination of Equivalency for January 2018 through December 2018. As such, it provides information regarding the status of Regulation XIII – New Source Review (NSR) in meeting federal NSR requirements and shows that South Coast AQMD’s NSR program is in preliminary compliance with applicable federal requirements from January 2018 through December 2018.

COMMITTEE: Stationary Source, January 24, 2020, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

AD:DO:GL:SKT

Summary

South Coast AQMD’s New Source Review (NSR) rules and regulations are designed to comply with federal and state Clean Air Act requirements and to ensure that emission increases from new and modified sources do not interfere with efforts to attain and maintain the federal and state 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, 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, 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 the 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. In addition, 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 2018 PDE and FDE are required to be reported to the Board at the February and September 2020 Board meetings, respectively. Rule 1315 also requires the Executive Officer to aggregate and track offsets debited from and deposited to South Coast AQMD’s 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 6, 2019 presented the FDE for calendar year 2017 and demonstrated that South Coast AQMD’s NSR program met the federal offset requirements for calendar year 2017.

This report, which presents the PDE covering the calendar year 2018 reporting period, demonstrates compliance with federal NSR requirements by establishing aggregate equivalence with federal offset requirements for sources that were not exempt from federal offset requirements, but were either exempt from South Coast AQMD offset requirements or obtained their offsets from South Coast AQMD pursuant to Regulation XIII.

The PDE for calendar year 2018 is summarized in Table 1. Additionally, the projections of South Coast AQMD’s federal offset account balances for January 2019 through December 2019 and January 2020 through December 2020 as specified and required pursuant to Rule 1315(e) are presented in Table 2. These results demonstrate that there were, and project that there will be, adequate offsets available to mitigate all applicable emission increases during these reporting periods. This report demonstrates that, for calendar years 2018 through 2020, South Coast AQMD’s NSR program continues to meet and is projected to meet federal offset requirements and is equivalent to those requirements on an aggregate basis². Since U.S. EPA designated the South Coast AQMD as attainment with the federal CO standard effective June 11, 2007, South Coast AQMD does not need to report CO accumulated credits and account balances in this report. All data will be maintained in the unlikely event it is needed in the future.

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

Table 1
PDE for January 2018 through December 2018

DESCRIPTION	VOC	NO_x	SO_x	PM₁₀
2017 Actual Ending Balance^a (tons/day)	107.86	23.74	4.27	16.02
2018 Discount of Credits for Surplus Adjustment ^b (tons/day)	0.00	0.00	0.00	0.00
2018 Starting Balance (tons/day)	107.86	23.74	4.27	16.02
2018 Actual Total Debits ^c (lbs./day)	-326	-385	-120	-467
2018 Actual Total Debits^c (tons/day)	-0.16	-0.19	-0.06	-0.23
2018 Actual Total Credits ^d (lbs./day)	0	0	0	0
2018 Actual Total Credits^d (tons/day)	0.00	0.00	0.00	0.00
2018 Preliminary Ending Balance^e (tons/day)	107.70	23.55	4.21	15.79

^a Updated “2017 Actual Ending Balance”. VOC balance was updated to correct information previously reported in Table 1 of the 2017 FDE dated September 6, 2019.

^b This adjustment is surplus at the time of use discount, which is also discussed in Rule 1315(c)(4). Note: there were no control requirements implemented that became effective during the previous calendar year.

^c For an explanation of the sources of debits please refer to page 7 of this report, as well as Rule 1315(c) and the February 4, 2011 Rule 1315 staff report.

^d PDE does not account for any credits for calendar year 2018. Credits will be included in the Final Determination of Equivalency.

^e “2018 Preliminary Ending Balance” equals the “2017 Actual Ending Balance” reduced by any surplus adjustments and the sum of actual debits.

Table 2
Projections of South Coast AQMD's Federal Offset Account Balances for
January 2019 through December 2019, and
January 2020 through December 2020^a

DESCRIPTION	VOC	NO _x	SO _x	PM ₁₀
2018 Preliminary Ending Balance^b (tons/day)	107.70	23.55	4.21	15.79
2019 Projected Starting Balance (tons/day)	107.70	23.55	4.21	15.79
2019 Total Projected Debits ^c (lbs./day)	-984	-375	-93	-303
2019 Total Projected Credits ^c (lbs./day)	8,804	2,496	512	1,275
2019 Sum of Projected Debits/Credits^c (lbs./day)	7,820	2,121	419	972
2019 Sum of Projected Debits/Credits^c (tons/day)	3.91	1.06	0.21	0.49
2019 Projected Ending Balance^d (tons/day)	111.61	24.61	4.42	16.28
2020 Projected Starting Balance (tons/day)	111.61	24.61	4.42	16.28
2020 Total Projected Debits ^c (lbs./day)	-984	-375	-93	-303
2020 Total Projected Credits ^c (lbs./day)	8,804	2,496	512	1,275
2020 Sum of Projected Debits/Credits^c (lbs./day)	7,820	2,121	419	972
2020 Sum of Projected Debits/Credits^c (tons/day)	3.91	1.06	0.21	0.49
2020 Projected Ending Balance^e (tons/day)	115.52	25.67	4.63	16.77

- ^a Prior reports included a projected discount of credits for surplus adjustment. However, because the rule does not require such discount for balance projections, this will no longer be included.
- ^b "2018 Preliminary Ending Balance" is as shown in Table 1.
- ^c 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 7 of this report, 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.
- ^d "2019 Projected Ending Balance" equals the "2018 Preliminary Ending Balance" plus the sum of 2019 projected debits and projected credits.
- ^e "2020 Projected Ending Balance" equals the "2019 Projected Ending Balance" plus the sum of 2020 projected debits and projected credits.

Background

South Coast AQMD originally adopted its New Source Review Rules and Regulations (NSR program) in 1976. U.S. EPA approved South Coast AQMD's NSR program into the State Implementation Plan (SIP) initially on January 21, 1981 (46FR5965) and again on December 4, 1996 (61FR64291). U.S. EPA approved South Coast AQMD's 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 federal and state legal requirements and the changing needs of the local environment and economy. Specific 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, respectively. Rule 1309.1 was amended on September 8, 2006 and replaced on August 3, 2007. On November 3, 2008, in response to a law suit 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 the California Environmental Quality Act (CEQA). On February 4, 2011 South Coast AQMD adopted a revised and enhanced version of Rule 1315, which included a new CEQA assessment. U.S. EPA approved Rule 1315 in 2012 (77FR31200).

One element of South Coast AQMD's NSR program design is to offset emission increases in a manner at least equivalent to federal and state statutory NSR requirements. South Coast AQMD's NSR program implements the federal and state statutory requirements for NSR and ensures that construction and operation of new, relocated and modified stationary sources does not interfere with progress towards attainment of the National and State Ambient Air Quality Standards. South Coast AQMD's computerized emission tracking system is used to demonstrate equivalence with federal and state 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 their classification in 2007, the South Coast Air Basin (SOCAB) and Salton Sea Air Basin (SSAB) must comply with the requirements for severe 17 and severe non-attainment areas, respectively, for ozone precursors (*i.e.*, VOC and NO_x). However, in May 2010, the SOCAB was re-designated as an extreme non-attainment area for ozone. During the 2018 equivalency period, both the SOCAB and the SSAB complied with their respective requirements for ozone non-attainment and serious non-attainment for PM₁₀ and its precursors (*i.e.*, VOC, NO_x and SO_x)³. SSAB is considered attainment for CO. U.S. EPA designated the SOCAB as attainment with federal CO standards on June 11, 2007. Both SOCAB and SSAB are considered attainment for SO₂ and NO₂,

³ 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; however, Rule 1303 still requires offsets for PM₁₀ since SOCAB is considered non-attainment for state PM₁₀ Ambient Air Quality Standards, so that pollutant continues to be tracked. Although the Clean Air Act no longer requires offsets for PM₁₀ major sources in SOCAB, PM_{2.5} is not covered by Rule 1315 or Rule 1304 and is subject to Rule 1325 - Federal PM_{2.5} New Source Review Program.

however SO_x and NO_x are precursors to pollutants for which both SOCAB and SSAB are designated as non-attainment⁴. 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 stationary sources, when the source is considered a major stationary source⁵ for the nonattainment pollutants (or their precursors). This report demonstrates compliance with the federal NSR offsets requirements.

Overview of Analysis Methodology

The two most important elements of federal non-attainment NSR requirements are LAER and emission offsetting for major sources. As set forth in South Coast AQMD's Best Available Control Technology (BACT) Guidelines, South Coast AQMD's BACT requirements are at least as stringent as federal LAER for major sources. Furthermore, 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 federal requirements. As a result, these sources comply with 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) is important to the NSR program and the local economy. Therefore, South Coast AQMD has assumed the responsibility of providing the necessary offsets for exempt sources, the Priority Reserve, and the Community Bank. This report examines withdrawals from South Coast AQMD emission offset accounts during calendar year 2018 and demonstrates programmatic equivalence on an aggregate basis with 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.

⁴ SO_x is a precursor to PM₁₀ (and PM_{2.5}) and NO_x is a precursor to both PM₁₀ (and PM_{2.5}) and ozone.

⁵ The major source thresholds for SOCAB, SSAB and MDAB, based on their attainment status during calendar year 2018 reporting periods are summarized below:

Pollutant	SOCAB	SSAB	MDAB
VOC	10 tons/year	25 tons/year	100 tons/year
NO _x	10 tons/year	25 tons/year	100 tons/year
SO _x	70 tons/year	70 tons/year	100 tons/year
PM ₁₀	70 tons/year	70 tons/year	100 tons/year
CO	50 tons/year	100 tons/year	100 tons/year

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 its own federal offset account. South Coast AQMD's NSR program is considered to provide equivalent or greater offsets of emissions as required by federal requirements for each subject pollutant provided the balance of offsets in South Coast AQMD's 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 all debited from South Coast AQMD's federal offset accounts when they occur at federal major sources. For federal equivalency demonstrations, South Coast AQMD uses an offset ratio of 1.2-to-1.0 for extreme non-attainment pollutants (ozone and ozone precursors, *i.e.*, VOC and NO_x) and uses 1.0-to-1.0 for all other non-attainment 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).

Furthermore, to comply with U.S. EPA's NSR Reform requirements applicable to extreme non-attainment 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.

Credit Accounting

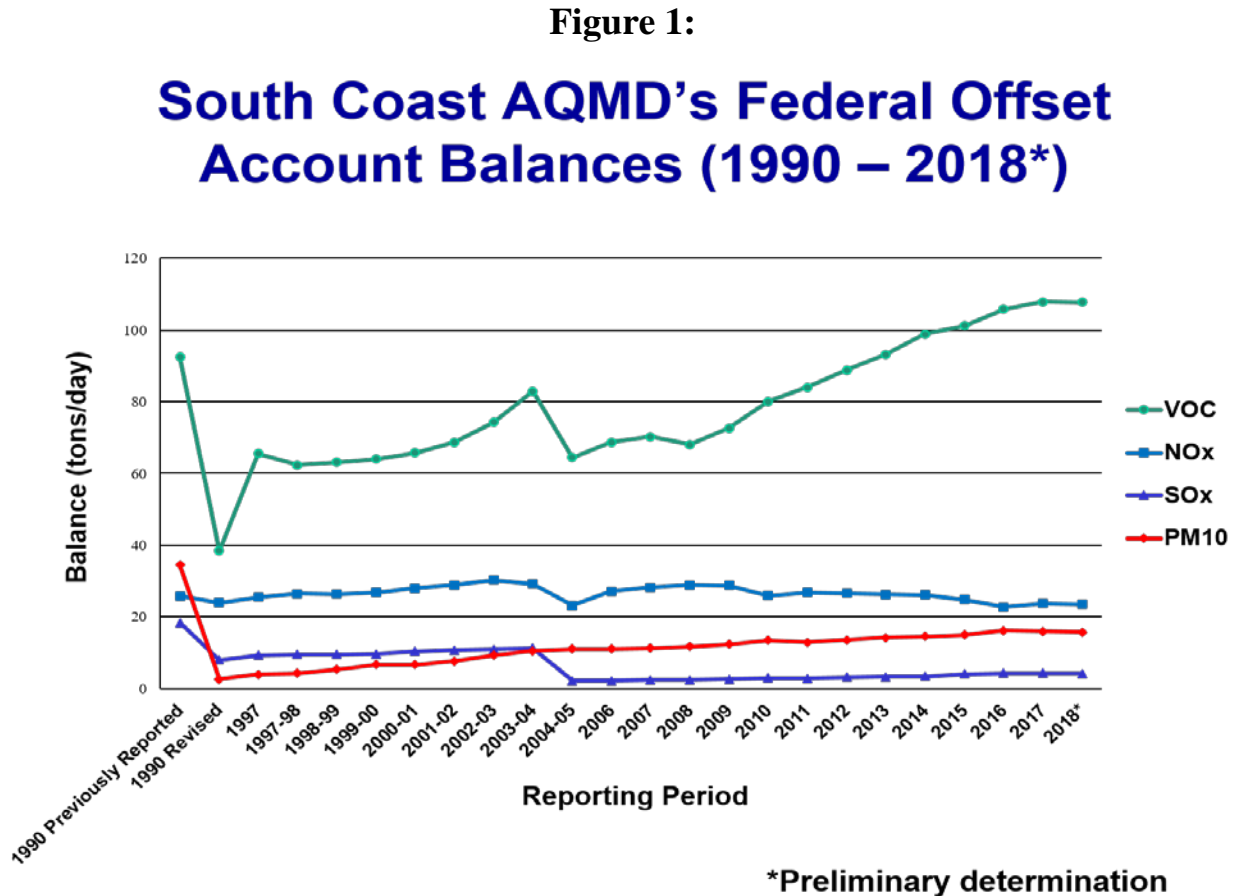
When emissions from a permitted source are permanently reduced (*e.g.*, installation of control equipment, removal of the source) and the emission reduction is not required by rule or law and is not called for by an AQMP control measure that has been assigned a target implementation date⁶, the permit 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.

⁶ Refer to Rule 1309(b) for a complete explanation of eligibility requirements.

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. The calendar year 2018 balances are based on preliminary determinations.



The federal offset requirements PDE for calendar year 2018 and the projections for calendar years 2019 and 2020 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 Attachment 1 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 2018, South Coast AQMD's NSR program provided equivalent offsets to those required by federal NSR requirements. The program is at least preliminarily equivalent to the federal requirements on an aggregate basis because the preliminary ending offset account balances for the calendar year reporting period, as shown in Table 1, remained positive for all pollutants.
- South Coast AQMD's projected offset account balances for 2019 and 2020 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 2019 and 2020 are projected to remain positive.

Attachments

1. Detailed listing of actual debits, preliminary credits, and sum of debits and credits
2. Board Meeting Presentation

ATTACHMENT 1

Detailed listing of actual final debits, credits and sum of debits and credits

Table A
Total Actual Debits from South Coast AQMD's Federal Offset Accounts
(January 2018 through December 2018)

DISTRICT OFFSETS USED	VOC	NO_x	SO_x	PM₁₀
Priority Reserve (lbs./day)	-13	-11	0	0
Community Bank (lbs./day)	-4	0	0	0
Rule 1304 Exemptions (lbs./day)	-255	-310	-120	-467
Sum Total of South Coast AQMD Offsets (lbs./day)	-272	-321	-120	-467
1.2-to-1.0 Offset Ratio (lbs./day)	-54	-64	N/A	N/A
Total Actual Debits to South Coast AQMD Account (lbs./day)	-326	-385	-120	-467
Total Actual Debits to South Coast AQMD Account (tons/day)	-0.16	-0.19	-0.06	-0.23

Table B
Sum of Preliminary Debits/Credits Activities in
South Coast AQMD's Federal Offset Accounts
(January 2018 through December 2018)

	VOC	NO_x	SO_x	PM₁₀
Total Actual Debits* (lbs./day)	-326	-385	-120	-467
Total Actual Credits* (lbs./day)	0	0	0	0
Sum of Actual Debits(-)/Credits(+)* (lbs./day)	-326	-385	-120	-467
Sum of Actual Debits(-)/Credits(+)* (tons/day)	-0.16	-0.19	-0.06	-0.23

* 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.



Status Report on Regulation XIII – New Source Review

Governing Board Meeting
February 7, 2020



NSR Status Report Overview

Purpose:

Demonstrate South Coast AQMD's NSR program meets federal NSR offset requirements for Major Sources, as required by EPA, for sources that are exempt from offsets under South Coast AQMD's NSR rule



NSR Status Report History

- South Coast AQMD has produced Annual NSR Status Reports since 1990
- Around 2002-2004 EPA requested South Coast AQMD adopt a rule to memorialize equivalency demonstrations
- Rule 1315 - Federal NSR Tracking System adopted in 2006/2007 and revised February 2011
- EPA approved Rule 1315 into the SIP and it became effective on June 25, 2012



Rule 1315

Federal NSR Tracking System

- Rule 1315 established procedures to demonstrate equivalency with federal NSR offset requirements
 - Tracks debits from and credits to South Coast AQMD's federal internal offset account for each pollutant
 - Annual Preliminary Determinations of Equivalency (PDE), Final Determinations of Equivalency (FDE) and Projections
 - Balances in South Coast AQMD's federal offset accounts must remain positive



South Coast AQMD's Federal NSR Offset Accounts

Preliminary Determination of Equivalency (PDE)*

Calendar Year (CY) 2018

DESCRIPTION	VOC	NOx	SOx	PM10
2017 Final Ending Balance (tons/day)	107.86	23.74	4.27	16.02
2018 Total Discount of Credits for Surplus Adjustment (tons/day)	0.00	0.00	0.00	0.00
2018 Total Debits (tons/day)*	-0.16	-0.19	-0.06	-0.23
2018 Total Credits (tons/day)	0.00	0.00	0.00	0.00
2018 Preliminary Ending Balance (tons/day)	107.70	23.55	4.21	15.79

***The PDE does not account for any credits for CY 2018. Credits will be included in the Final Determination of Equivalency.**



South Coast AQMD's Projected Federal NSR Offset Accounts CY 2019

DESCRIPTION	VOC	NOx	SOx	PM10
2018 Preliminary Ending Balance (tons/day)	107.70	23.55	4.21	15.79
2019 Total Projected Debits (tons/day)	-0.49	-0.19	-0.05	-0.15
2019 Total Projected Credits (tons/day)	4.40	1.25	0.26	0.64
2019 Projected Ending Balance (tons/day)	111.61	24.61	4.42	16.28

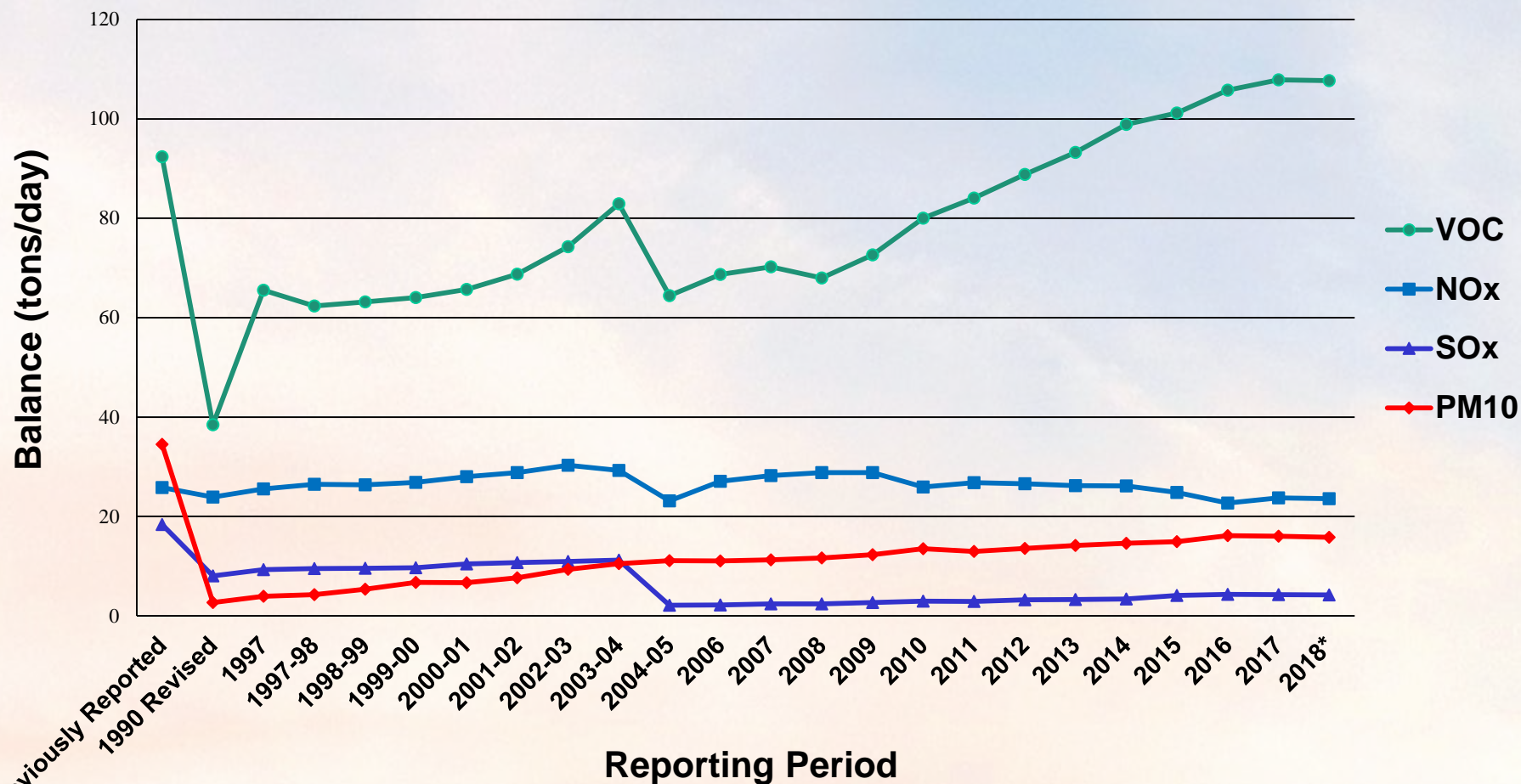


South Coast AQMD's Projected Federal NSR Offset Accounts CY 2020

DESCRIPTION	VOC	NOx	SOx	PM10
2019 Projected Ending Balance (tons/day)	111.61	24.61	4.42	16.28
2020 Total Projected Debits (tons/day)	-0.49	-0.19	-0.05	-0.15
2020 Total Projected Credits (tons/day)	4.40	1.25	0.26	0.64
2020 Projected Ending Balance (tons/day)	115.52	25.67	4.63	16.77



South Coast AQMD's Federal Offset Account Balances (1990 – 2018*)



*Preliminary determination



Conclusions

- The preliminary analysis for CY 2018 shows South Coast AQMD's NSR program continued to be at least equivalent to the federal NSR offset requirements
- For CYs 2019 and 2020 it is also projected that South Coast AQMD's NSR program will continue to be equivalent to the federal NSR offset requirements
- The Final Determination of Equivalency for CY 2018 will be presented to the Board at its September 2020 meeting