



South Coast
AQMD

Regulation XIII – New Source Review

September 12, 2019
South Coast AQMD
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Agenda

Regulation XIII Working Group

Purpose and Background

Guiding Principles

Issues Based on EPA Comments

Potential Impacts

Formation of the Regulation XIII Working Group

- Staff has been discussing New Source Review (NSR) issues related to the RECLAIM transition at the RECLAIM Working Group Meetings
- U.S. EPA has identified NSR issues that are not unique to RECLAIM and have broader implications – applicability and offset calculations
- Regulation XIII Working Group has been formed to address NSR issues post-RECLAIM
- Provides an opportunity to conduct a full evaluation of Regulation XIII

RECLAIM and New Source Review Working Groups

- Two Working Group Meetings: RECLAIM and Regulation XIII
- Plan to schedule both Working Group Meetings on the same day – back to back

RECLAIM Working Group Meetings

Issues specific to
NOx RECLAIM transition

Updates on Landing Rules

Regulation XX Rule Amendments

Regulation XIII Working Group Meetings

New Source Review issues post-RECLAIM
(Former RECLAIM and Non-RECLAIM)

Address future supply and demand of offsets

Regulation XIII Rule Amendments

Initial List of New Source Review Topics

NSR applicability for major source modifications

Offsetting calculation for major source modifications

Projected supply and demand for offsets

Concepts for a new internal Large Source Bank

Concepts for reducing the demand for offsets

Concepts for increasing the supply of offsets

Other?

Regulation XIII – Purpose & Background

- Regulation XIII applies to the installation of any new source and to the modification of any existing source
- When a facility applies for a new or modified source, Regulation XIII acts as a “gatekeeper” to determine if the permit action results in an emission increase¹
- A permit action that results in an emission increase ≥ 1 pound per day of any nonattainment² air pollutant must:
 - Install Best Available Control Technology (BACT)³
 - Offset emission increases
 - Conduct a modeling analysis⁴

¹ Determined pursuant to Rule 1306

² Based on National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) attainment status

³ Regulation XIII also requires BACT for emission increases of ammonia and Ozone Depleting Compounds (ODCs)

⁴ Regulation XIII does not require modeling for VOC and SOx

Guiding Principles

- Ensure new and modified sources are utilizing the cleanest technologies – meet Best Available Control Technology
- Ensure that emission increases from new and modified sources do not interfere with efforts to attain and maintain state and federal air quality standards
- Allow for future economic growth and facility modernization
- Provide the most streamlined approach for both South Coast AQMD and affected facilities
- Compliance with federal and state NSR requirements

Federal Requirements

- NSR changes must comply with all federal requirements
- Clean Air Act (CAA) 110(l) requirement:
 - “...The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress...or any other applicable requirement of this chapter.”
- In 2002, U.S. EPA’s revised its federal NSR program, referred to as “NSR Reform”
 - 2002 NSR Reform included changes to the NSR applicability test for modified major sources

State Requirements – SB 288

- In response to U.S. EPA's 2002 NSR Reform, SB 288 - "Protect California Air Act of 2003" was enacted
- SB 288 requires
 - "No air quality management district or air pollution control district may amend or revise its new source review rules or regulations to be less stringent than those that existed on December 30, 2002."
 - NSR changes that are more stringent than existing provisions are allowed
 - Certain changes that are less stringent are allowed under specific conditions (next slide)

SB 288 Flexibilities

- SB 288 allows flexibility for NSR rules if:
 - Replacement of a rule that will result in greater public health protection
 - Replacing a technically problematic rule
 - Amending a rule to relieve a business of substantial hardship – district must offset any emission increases
 - Adopting a temporary rule to address an emergency
 - Rule changes are allowed for areas that attain all national ambient air quality standards under certain conditions
- NSR rule changes allowed by the specific circumstances listed above may not exempt or reduce the obligation of a major source to meet BACT

Regulation XIII Federal Equivalency

- When discussing potential Regulation XIII amendments for the RECLAIM transition, U.S. EPA indicated that Regulation XIII changes would be reviewed according to the most recent Federal NSR provisions (2002 NSR reform)
- U.S. EPA promulgated NSR Reform in 2002, after the major elements of the current Regulation XIII were approved into the SIP in 1996
- Discussion led to a comprehensive evaluation of NSR deficiencies and review of areas to improve Regulation XIII

U.S. EPA Comments

- Comments focused on two issues

Issue 1 –
NSR
Applicability

Defining an emission increase for applicability under Regulation XIII for Best Available Control Technology (BACT) and offsets (NSR Reform)

Issue 2 –
Offsetting

Methodology to determine amount of offsets required (Program Deficiency)

- Comments apply to all pollutants – not RECLAIM specific
- Affects all federal major sources
 - Federal major sources (e.g. NO_x Potential to emit \geq 10 tons per year)



EPA's Comments on the Applicability Test

- EPA's comment on NSR applicability are based on the December 2002 promulgation of its NSR Reform
- Federal NSR, which includes NSR Reform, applies to major sources
 - Federal major source thresholds are pollutant specific and depend on an area's attainment status designation¹
 - Major source threshold is 250 tons per year (or 100 tons per year for specific source categories), except lower thresholds apply for non-attainment areas

 Non-attainment  Attainment

	Pollutant	South Coast Air Basin	Riverside County Portion of Salton Sea Air Basin	Riverside County Portion of Mojave Desert Air Basin
Regulation XIII Major Source PTE Thresholds (tons per year) ²	VOC	10	25 ³	100
	NOx	10	25 ³	100
	SOx	70	70	100
	PM2.5	70	---	---
	PM10	70	70	100
	CO	50	100	100

¹ Attainment designation based on National Ambient Air Quality Standards (NAAQS)

² Major source thresholds for attainment areas under Regulation XIII differ from federal major source thresholds

³ To be changed to 10 tons per year after reclassification of Coachella Valley to "extreme" for 1997 8-hour ozone standard

EPA's Comments on the Applicability Test (Continued)

- EPA's 2002 NSR Reform applicability test for modified major sources:
 - Baseline Actual Emissions-to-Projected Actual Emissions
 - Allows option to use Actual Emissions-to-Potential to Emit (PTE)
- EPA's 2002 NSR Reform did not change the applicability test for new major sources
 - Actual Emissions-to-PTE was maintained

Baseline Actual Emissions	Emissions during any consecutive 24-month period over the past 10 years (5 years for Electricity Generating Facilities)
Actual Emissions	Emissions during the immediately preceding 24-month period or other 24-month period which is representative of normal operations

Projected Actual Emissions

Projected Actual Emissions = Maximum Projected Emissions – Demand Growth

- Maximum projected emissions are based on the company's representation of business activity (next 5 years or 10 years if increased capacity)
- Demand Growth represents the increase in emissions that an existing unit actually and physically could have accommodated
- Staff believes use of **Projected Actual Emissions** could result in backsliding under SB 288
 - Regulation XIII uses **PTE** for determining post-modification emissions
 - **Projected Actual Emissions** are typically less than **PTE**
 - Using **Projected Actual Emissions** could result in fewer facilities being subject to BACT
 - Maximum projected emissions and demand growth are difficult to calculate and verify

Applicability Test Under Existing Regulation XIII

- For new sources, NSR applicability under Regulation XIII is based on **Actual Emissions-to-PTE**
 - Actual pre-modification emissions for new sources are zero
 - Consistent with federal NSR applicability test for new major sources
- For existing sources, NSR applicability based on when a source was permitted
 - “Pre-NSR” sources: permitted prior to adoption of Regulation XIII or Rule 213
 - Applicability is based on **Actual Emissions-to-PTE**
 - Consistent with NSR Reform
 - “Post-NSR” sources: permitted after adoption of Regulation XIII
 - Applicability is based on the pre- and post-modification PTE
(**PTE_{Pre-Modification}** -to-**PTE_{Post-Modification}**)
 - Inconsistent with NSR Reform, which requires **Baseline Actual Emissions-to-Projected Actual Emissions** or **Actual Emissions-to-PTE**

NSR Applicability Comparison for Major Sources

New or Modified Major Emission Sources	Regulation XIII Applicability Test	Federal NSR Applicability Test
New major emission source	Actual-to-PTE	Actual-to-PTE
Modification to existing pre-NSR major emission source	Actual-to-PTE	Actual-to-PTE*
Modification to existing post-NSR major emission source	PTE-to-PTE	Actual-to-PTE*

* NSR Reform also allows Baseline Actual Emissions to Projected Actual Emissions. Staff believes using Projected Actual Emissions can result in backsliding under SB288

Preliminary Recommendation for NSR Applicability Test

- NSR applicability for modifications to existing post-NSR major emission sources will be:
 - Based on **Actual Emissions-to-PTE**
 - Consistent with NSR Reform applicability test
- If there is an increase between pre-modification **Actual Emissions** and post-modification **PTE**, then project will be subject to:
 - BACT
 - Offsetting
 - Modeling
- No impact on minor sources
 - Modifications for post-NSR minor sources will continue to use **PTE-to-PTE**, as required by current Regulation XIII

EPA's Comments on Offsetting

- EPA has commented that federal NSR offsetting requirements for major sources should be based on the difference between **Actual Emissions-to- $PTE_{\text{Post-Modification}}$**
- However, under Regulation XIII, offsetting for modifications of post-NSR major sources is based on **$PTE_{\text{Pre-Modification}}$ -to- $PTE_{\text{Post-Modification}}$**
- Staff is working with EPA to explore potential options for calculating the amount of offsets required for modifications of post-NSR major sources

Offsetting Comparison for Major Sources

- Differences only for modifications to existing post-NSR major sources
- Federal NSR offsetting requirement does not apply to minor sources

New or Modified Major Emission Sources	Regulation XIII Offsetting Calculation	Federal NSR Offsetting Calculation
New major emission source	Actual-to-PTE	Actual-to-PTE
Modification to existing pre-NSR major emission source	Actual-to-PTE	Actual-to-PTE
Modification to existing post-NSR major emission source	PTE-to-PTE	Actual-to-PTE

Preliminary Recommendation for Offsetting

- Offsetting recommendation for modification to existing post-NSR major sources:
 - First Tier: Allow use of PTE-to-PTE when
 - Actual emissions are at least 80% of the PTE; or
 - Past emission increases were fully offset less than 5 years prior to an application deemed complete
 - Second Tier: Require Actual Emissions-to-PTE for all other situations
- No impact on minor sources
 - Modifications for post-NSR minor sources will continue to use PTE-to-PTE to calculate offsets
- Use of a hierarchy to determine the amount of offsets required still pending confirmation from U.S. EPA

Potential Impacts for Major Sources

- Potential changes to South Coast AQMD's NSR program will result in more NSR actions for modification to major sources
 - More BACT installations for major sources
 - More offsets will be needed for major source modifications
- Change in offset calculation (**Actual Emissions-to-PTE**), as well as transition of RECLAIM facilities to command-and-control will decrease offset supply
 - Further analysis to quantify the supply and demand for offsets needed
- South Coast AQMD staff is evaluating a variety of areas to reduce the demand and increase the supply of offsets to address concerns for offset availability

Summary

- U.S. EPA has raised concerns about differences between Federal NSR and current South Coast AQMD NSR calculation methodologies
 - Comments affect modifications of post-NSR major sources only
- Initial proposal for modifications of post-NSR major sources:
 - Applicability is based on Actual Emissions-to-PTE
 - Quantity of offsets required is based on a two tier approach of PTE-to-PTE if certain conditions are met, then Actual Emissions-to-PTE
- Staff will continue working with U.S. EPA on both initial proposals

Summary Table

Major Facilities	Applicability Test	Offsetting
New emission source	No change	No change
Modification to existing pre-NSR emission source	No change	No change
Modification to existing post-NSR emission source	Actual-to-PTE (currently PTE-to-PTE)	Actual-to-PTE* (currently PTE-to-PTE)

* In some cases, PTE-to-PTE is acceptable

Minor Facilities	Applicability Test	Offsetting
Any new source or modification	No change	No change

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New Source Review

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