



Regulation XIII – New Source Review

Working Group Meeting
January 21, 2021

Join Zoom Meeting

<https://scaqmd.zoom.us/j/95820623927>

Meeting ID: 958 2062 3927

Passcode: 243471

Teleconference Dial-In: 1-669-900-6833

Agenda

Previous Working Groups Summary

Status of NSR Issues

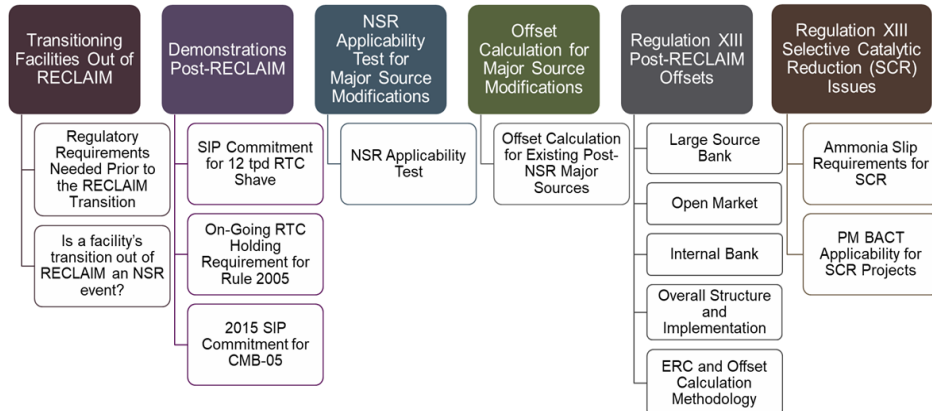
Capacity Utilization for Quantification of Offsets Without Records

Generation of ERCs for the Open Market

Responses to Regulation XIII Comment Letters

Co-Pollutant Strategy

Previous Working Group Meetings Summary



Draft Version 2.0

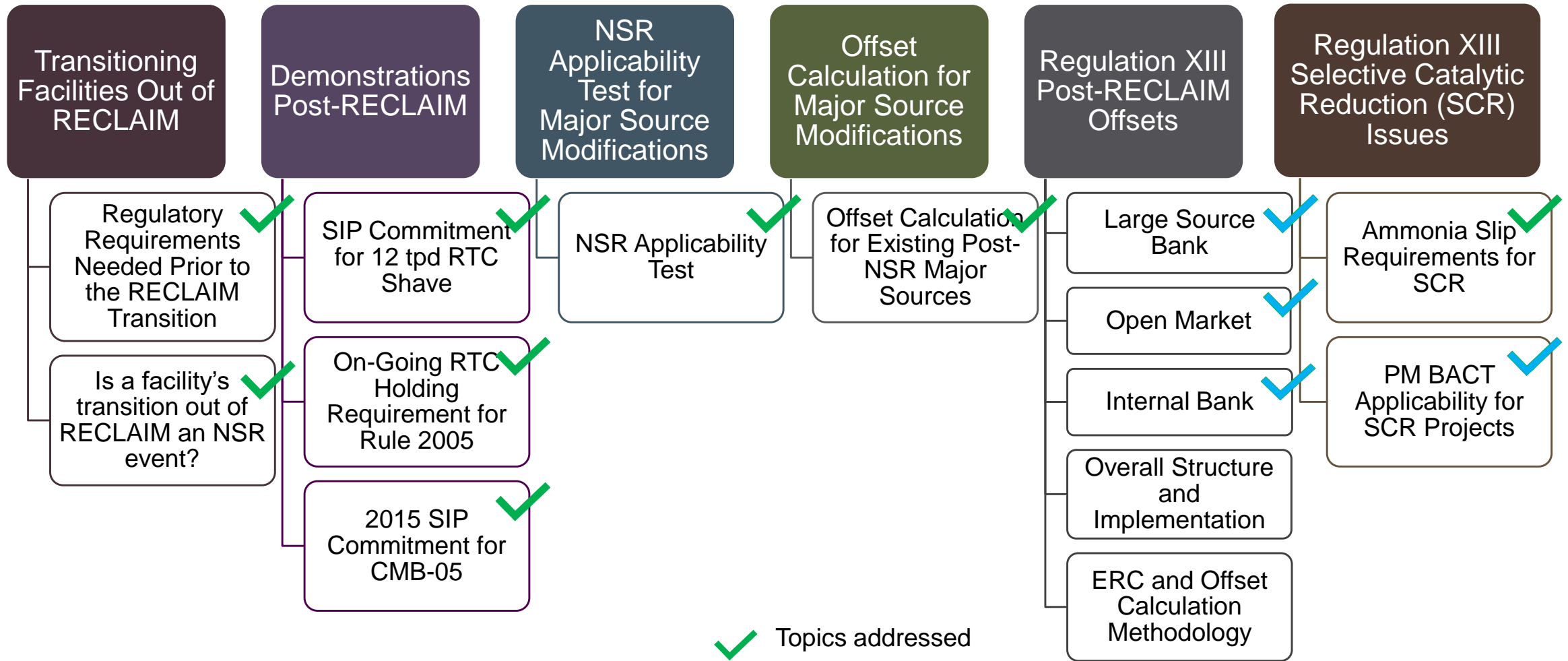
October 2020

- Status of NSR Issues
- Recap of Large Source Bank
- Surplus Discounting of ERCs
- Quantification of Offset and ERCs
- Fee for Generating ERCs
- Conversion of RTCs to ERCs

December 2020

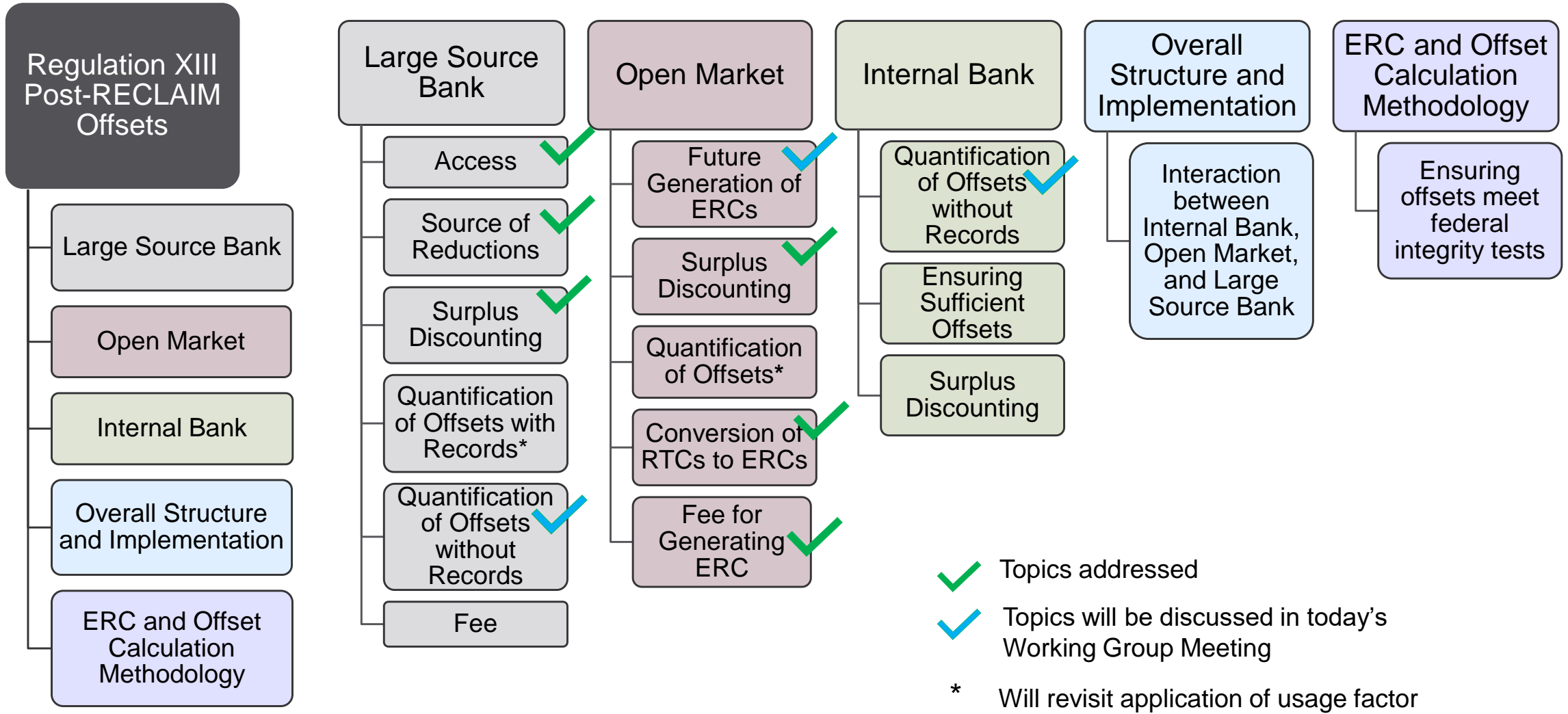
- Presented overview of RECLAIM Transition Plan, Draft Version 2.0

Status of NSR Issues



- ✓ Topics addressed
- ✓ Topics will be discussed in today's Working Group Meeting

Regulation XIII Offsets Post-RECLAIM



Capacity Utilization for Quantification of Offsets Without Records

Quantification of Offsets Without Records

Open
Market
(ERCs)

Internal
Bank
(I-ERCs)

Large
Source
Bank
(L-ERCs)

- Staff has been exploring an approach to quantify Large Source Bank ERCs (L-ERCs) from orphan shutdowns when records are unavailable
- Staff proposed to use a similar quantification approach to the Internal Bank ERCs (I-ERCs) for the Internal Bank
 - Orphan shutdowns are deposited into the Internal Bank based on 80% of the source's Potential to Emit (PTE)¹
- U.S. EPA has suggested that if a percent of the PTE is used to quantify L-ERCs that:
 - This approach should only be allowed if records are not available
 - Use of the offsets should be limited to non-major sources and modifications
 - South Coast AQMD should reevaluate the percentage of the PTE used to quantify emission decreases to generate offsets when records are not available

¹ Rule 1315 (c)(3)(B)(i) and Rule 1315 Staff Report, pg. 17 (2/4/11): www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2011/2011-feb4-026.pdf

Capacity Utilization Rate Background

- Currently Rule 1315 specifies quantification of orphan reductions for the Internal Bank based on 80% of the PTE
- 80% is based on 2009 U.S. Federal Reserve Capacity Utilization rates
 - Based on United States Geological Survey, Department of Energy, and survey data from the U.S. Census
- Capacity Utilization rate is a facility's percentage of maximum sustainable output attained under normal input conditions
 - Typically aggregated across industry sectors, but staff aggregated to include all types of facilities in South Coast
- U.S. EPA recommended that staff explore an approach that is more tailored to the region

Potential Sources of Utilization Rates

- South Coast AQMD's socioeconomic team researched the following potential data sources and approaches to address U.S. EPA's comments
 - Federal Reserve data
 - U.S. Census survey data
 - Institute of Supply Management Report of Business
 - Reliability estimates
 - Industrial Production (Output and Percent Change)
 - Utility usage rates
- Only Federal Reserve data and U.S. Census survey data provided industry specific data

Two Nationwide Measures of Capacity Utilization

U.S. Census¹

- **Approach:** Solicits survey responses from a sample of 7,500 firms across industries
 - Quarterly Survey Plant Capacity Utilization
- **Industries Reviewed:** Manufacturers (NAICS 31-33) and newspapers
 - Includes review of 94 sets of NAICS Codes
- **Methodology:** Compute weighted average Capacity Utilization for each industry based on firm's self-reported value of production

Federal Reserve²

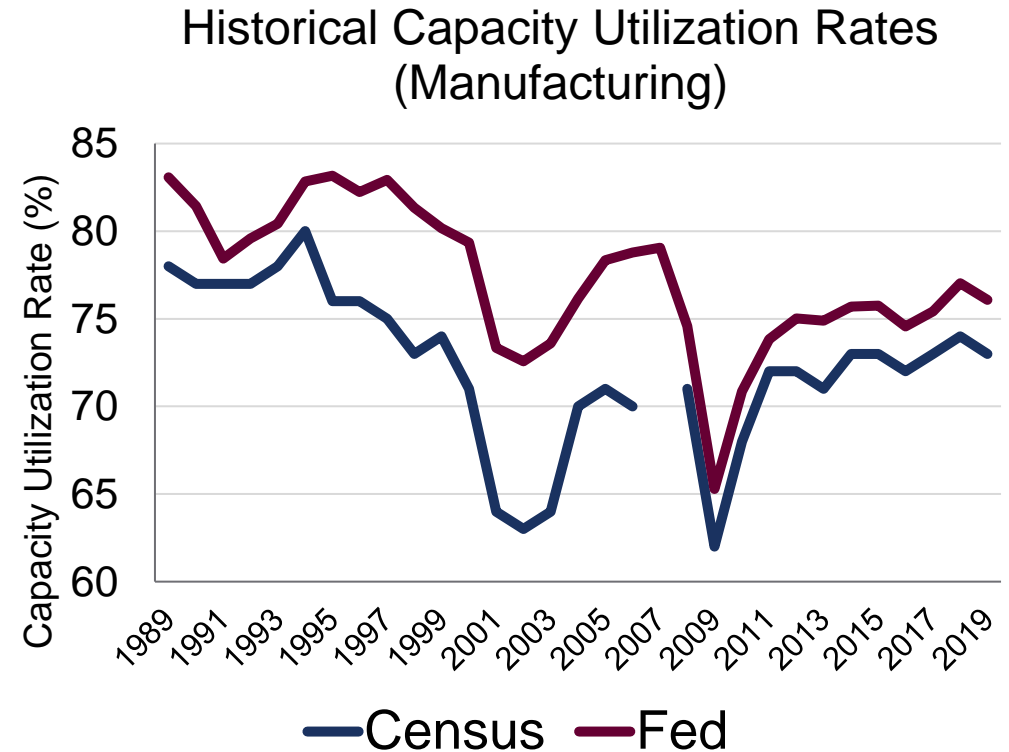
- **Approach:** Monthly and quarterly multiple sources of independent data including U.S. Census self-reported survey responses as a base data set
 - Capital inputs
 - Physical production output (where available)
 - Age of equipment
- **Industries Reviewed:** Manufacturing (NAICS 31-33), Mining (NAICS 21), and Utilities (NAICS 22)
 - Estimate quarterly and monthly values of 45 sets of NAICS Codes
- **Methodology:** Analyze multiple sources and adjust for historical continuity

¹ <https://www.census.gov/programs-surveys/qpc/technical-documentation/methodology.html>

² <https://www.federalreserve.gov/releases/G17/Meth/MethCap.htm>

Capacity Utilization Data for Manufacturing

- Federal Reserve data trends about 3% higher than U.S. Census data
- Federal Reserve data incorporates U.S. Census data and is a more complete look at Capacity Utilization
 - Federal Reserve data uses multiple sources of independent data
 - While U.S. Census survey data is somewhat more refined at industry sector level (e.g. more specific NAICS examined), more industry types are reviewed under Federal Reserve (e.g. mining and utilities)



Census Quarterly
3 Year Average

73.2%

Federal Reserve
3 Year Average

76.9%

Further Efforts to Examine Capacity Utilization

To tailor the Capacity Utilization, staff examined Capacity Utilization by:

- Four-county specific industrial output data (i.e. Gross Domestic Product (GDP)) from the REMI model used in South Coast AQMD socioeconomic analyses
- Geographical area of South Coast AQMD jurisdiction instead of entire four-county area
- Capacity Utilization weighted by orphan shutdowns rather than GDP
- Capacity Utilization weighted by emissions rather than GDP

Estimated Federal Reserve Utilization Rates

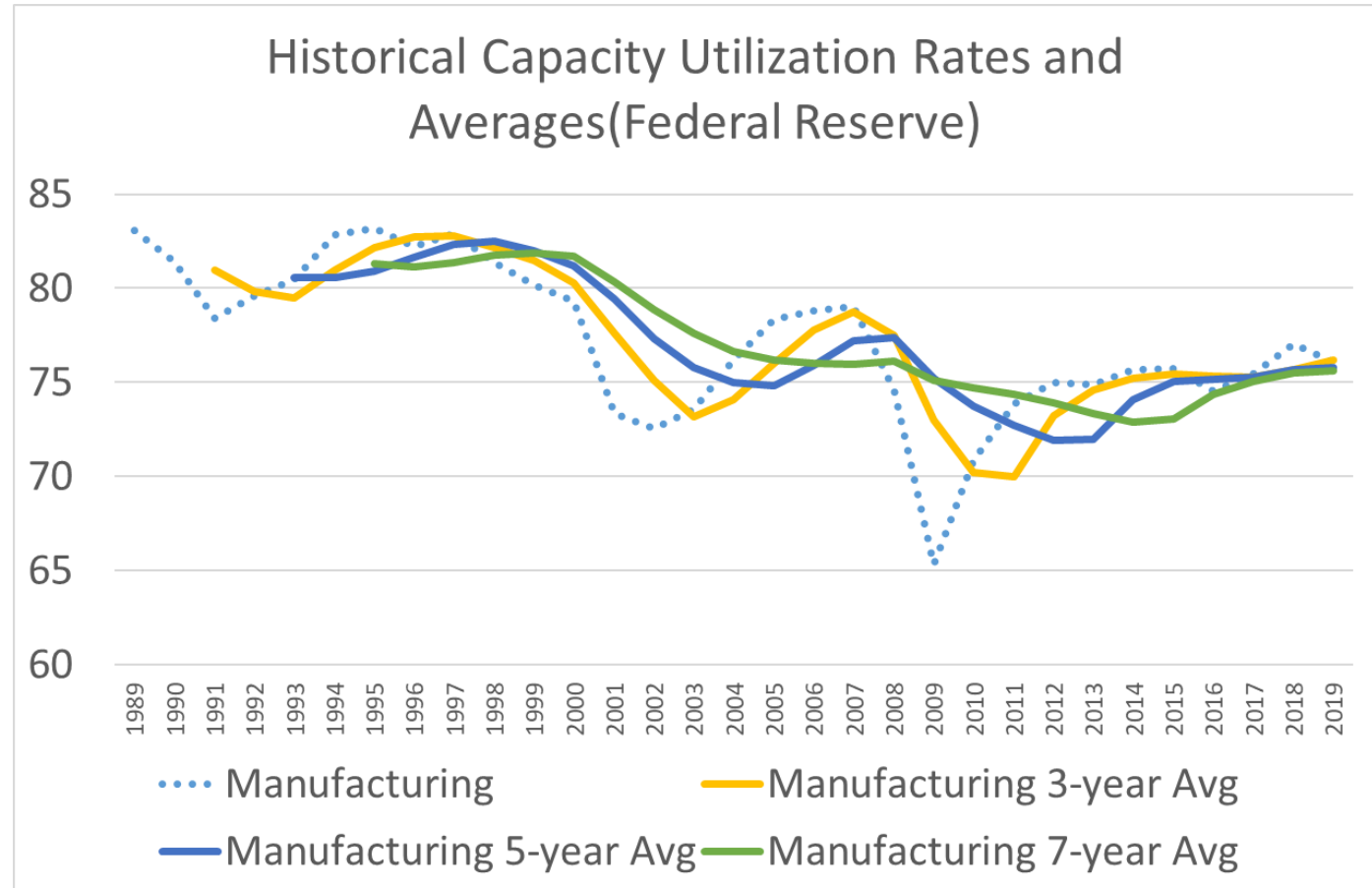
Federal Reserve Comparison for NOx	Utilization Rate (3 yr average)
Four-county by GDP	76.9%
South Coast AQMD geographical area instead of four-county	76.8%
Capacity Utilization weighted by orphan shutdowns rather than GDP	73.9%
Capacity Utilization weighted by emissions rather than GDP	79.4%

Evaluation of Longer Averaging Periods

- Based on input from U.S. EPA, staff evaluated 3-, 5-, and 7- year averaging periods
- Longer averaging provides more smoothing, but generally similar results

Range of Capacity Utilization Rates 2010-2019

Review Period	Low	High
Annual	73.5 (2010)	78.7 (2018)
3-Year Average	70.0 (2011)	76.2 (2019)
5-Year Average	71.9 (2012)	75.8 (2019)
7-Year Average	72.8 (2014)	75.6 (2019)



Capacity Utilization Summary

- Staff did not find a better source for Capacity Utilization data other than the Federal Reserve and U.S. Census
- Federal Reserve data and U.S. Census survey data are relatively similar
 - Based on the most recent 3-year average, Federal Reserve is about 3% higher
 - Federal Reserve data incorporates U.S. Census data and is a more complete look at Capacity Utilization
- Weighting by GDP, orphan shutdowns, and emissions Capacity Utilization estimates ranged from 73.9% to 79.4%
 - Longer averaging periods resulted in Capacity Utilization estimates ranging from 70.0% to 76.2% during 2010 to 2019
- U.S. EPA is recommending use of conservative Capacity Utilization rate of 70% when no records are available for the Internal Bank and Large Source Bank for non-Major Sources

Generation of ERCs for the Open Market

Generation of ERCs for the Open Market

- Staff considered suspending the generation of ERCs for the Open Market until a sufficient supply of NO_x, SO_x, and PM₁₀ offsets were generated for the Large Source Bank
- Based on stakeholder comments, staff is no longer exploring stopping the generation of ERCs to seed the Large Source Bank
 - Existing ERCs will continue to be sold, traded, and used in the Open Market as currently allowed
- Staff will explore with the Working Group similar surplus discounting and generation requirements for ERCs for the Open Market and offsets for the Large Source Bank

Responses to Regulation XIII Comment Letters

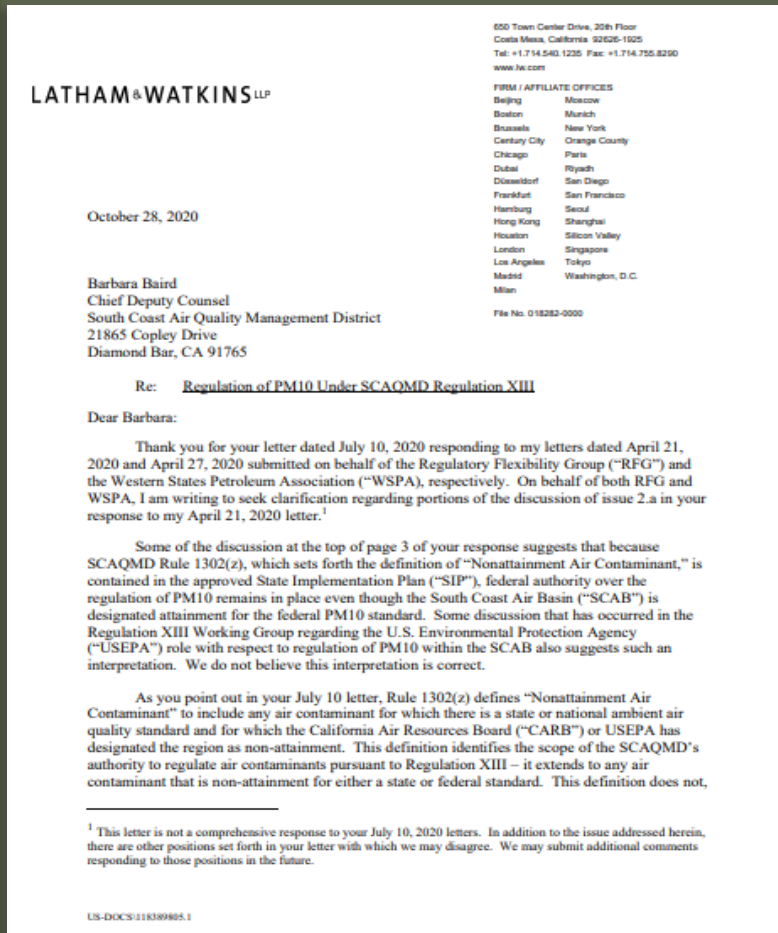
Comment Letters

- Three comment letters were received from:
 - Latham and Watkins on behalf of the Regulatory Flexibility Group (RFG)
 - Latham and Watkins on behalf of the Western States Petroleum Association (WSPA)
 - Los Angeles Department of Water and Power (LADWP)
- Comments focus on the federal applicability test and regulation of PM10 under Regulation XIII
- Comment letters are available on the proposed rules webpage¹



¹ <http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules>

Latham & Watkins NSR Comment Letter



- South Coast AQMD presented a two-tier NSR applicability test at the August 13, 2020 Working Group Meeting
 - Two-tier test was proposed to determine NSR applicability
 1. Retain existing PTE-to-PTE test
 2. Apply federal applicability test
- Latham & Watkins submitted comments on the proposed NSR applicability test
- Comments focused on:
 - Referencing the federal applicability test
 - Permit limits for the federal applicability test

Latham & Watkins NSR Comment Letter – Incorporating Federal NSR by Reference

- Recommends incorporating federal NSR requirements by reference
 - Effort to directly write federal requirements in Regulation XIII may introduce differences between Regulation XIII and federal requirements
 - Federal guidance might become inapplicable
 - Risk of losing interpretive materials outweighs convenience

Response

- Federal NSR requirements will be incorporated by reference
 - Staff will develop guidance for use of the federal NSR applicability test
- Staff will work with stakeholders if specific requirements are needed to provide clarity or to streamline implementation of the federal applicability test

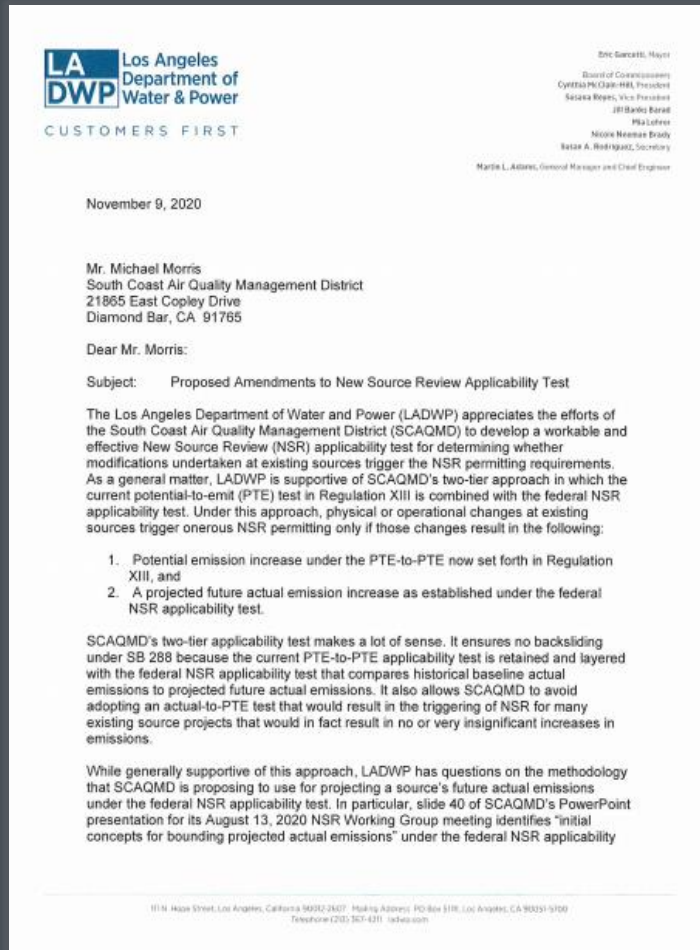
Latham & Watkins NSR Comment Letter – Making Projected Actual Emissions Permit Limits

- Recommends against making projected actual emissions permit limits
 - Federal approach requires “reasonable possibility recordkeeping” to verify projected actual emissions
 - Staff could incorporate recordkeeping and reporting requirements

Response

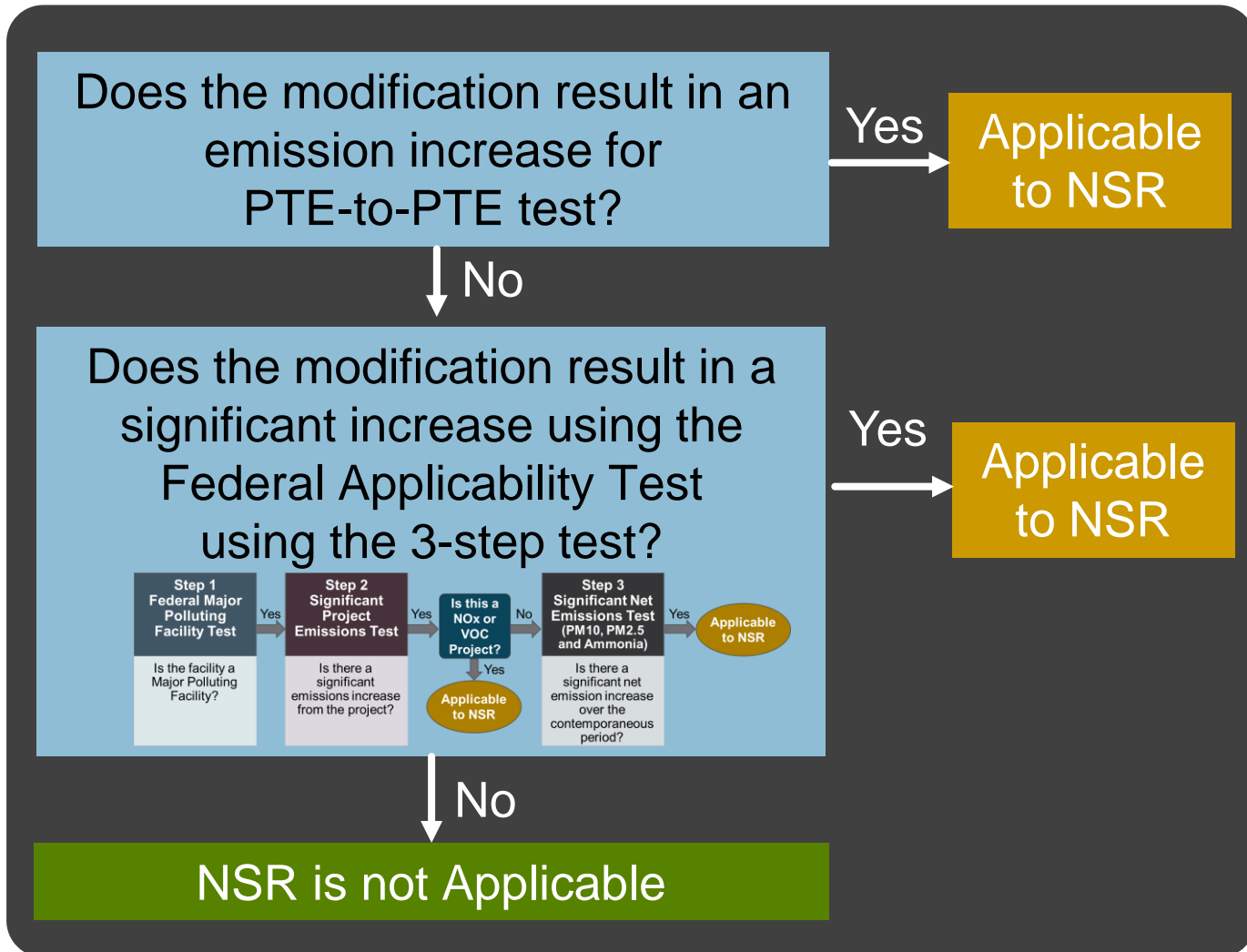
- First-tier test (PTE-to-PTE) will be the primary test
 - Will likely capture most sources that are subject to NSR before needing to apply the second-tier test
- Staff’s current thought is that additional permit limits beyond the PTE would not be needed for sources that use projected actual emission when using the federal NSR applicability test
- In lieu of a permit limit based on projected actual emissions, recordkeeping and reporting will be required
- Staff will work with stakeholders and consider federal guidance to establish when recordkeeping and reporting will apply

LADWP NSR Comment Letter



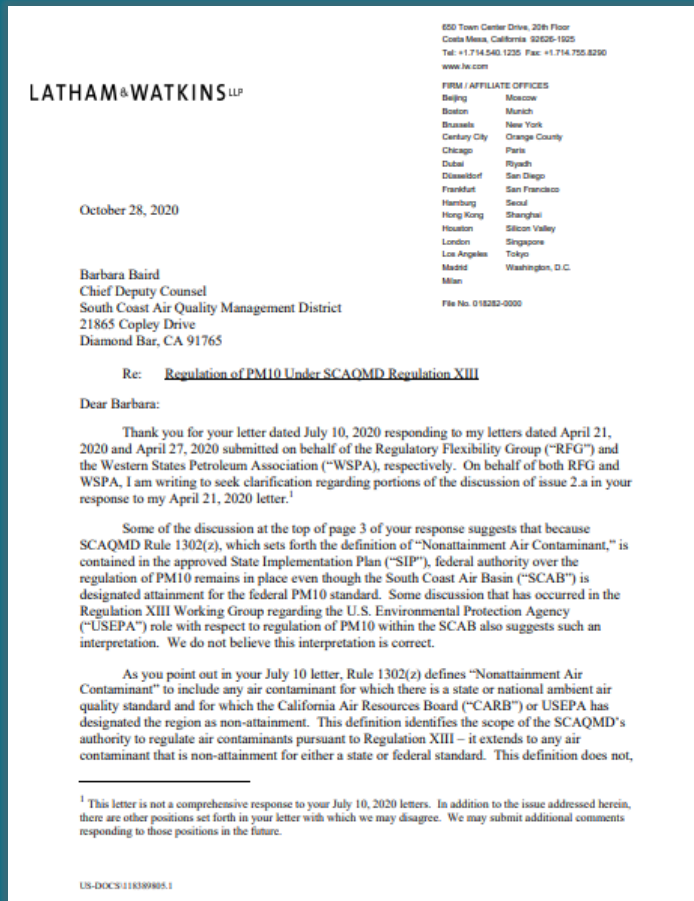
- Second comment letter on the federal NSR applicability test submitted by LADWP
- Supportive of the proposed two-tier NSR applicability test
- Requested clarification regarding making projected actual emissions used for the federal NSR applicability test into permit limits
- Concerned that an enforceable permit limit would reduce a source's potential emissions down to its projected future actual emission levels
 - Imposing such a requirement would have the effect of reducing the source's production capacity
 - Removes advantage of layering the federal emission increase test
- Additional permit limits beyond the PTE would not be applied to sources that use the federal NSR applicability test if after applying the PTE-to-PTE test, the source is not subject to NSR

Summary of the Proposed Two-Tier NSR Applicability Test for Major Source Modifications



- When summarizing the approach for the two-tier test, LADWP’s comment letter implies NSR requirements triggered only if a project results in:
 - Potential emission increase under the PTE-to-PTE test; **AND**
 - A projected future actual emission increase established under the federal NSR applicability test
- Staff would like to clarify that NSR requirements are triggered if there is an emission increase under the PTE-to-PTE **OR** the federal NSR applicability tests

Latham & Watkins PM Comment Letter

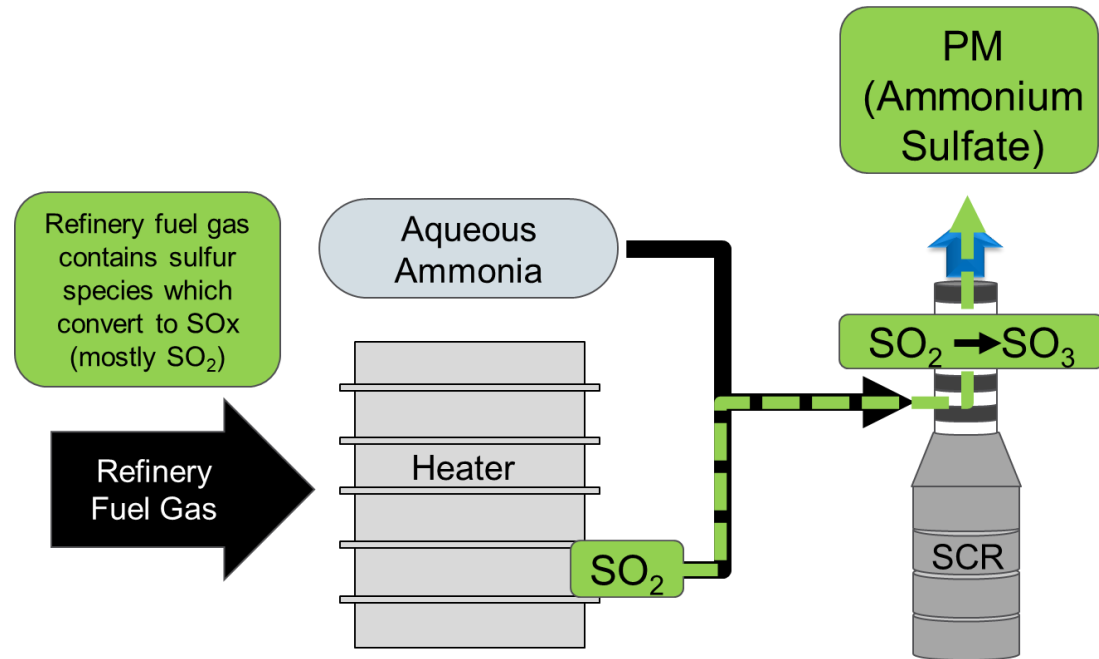


- Requests clarification of South Coast AQMD's July 10, 2020 response to Latham & Watkins regarding regulation of PM2.5
 - Response was to comment letters received on April 21, 2020 from RFG and April 27, 2020 from WSPA
- Staff proposing new co-pollutant strategy to address this concern

Co-Pollutant Strategy

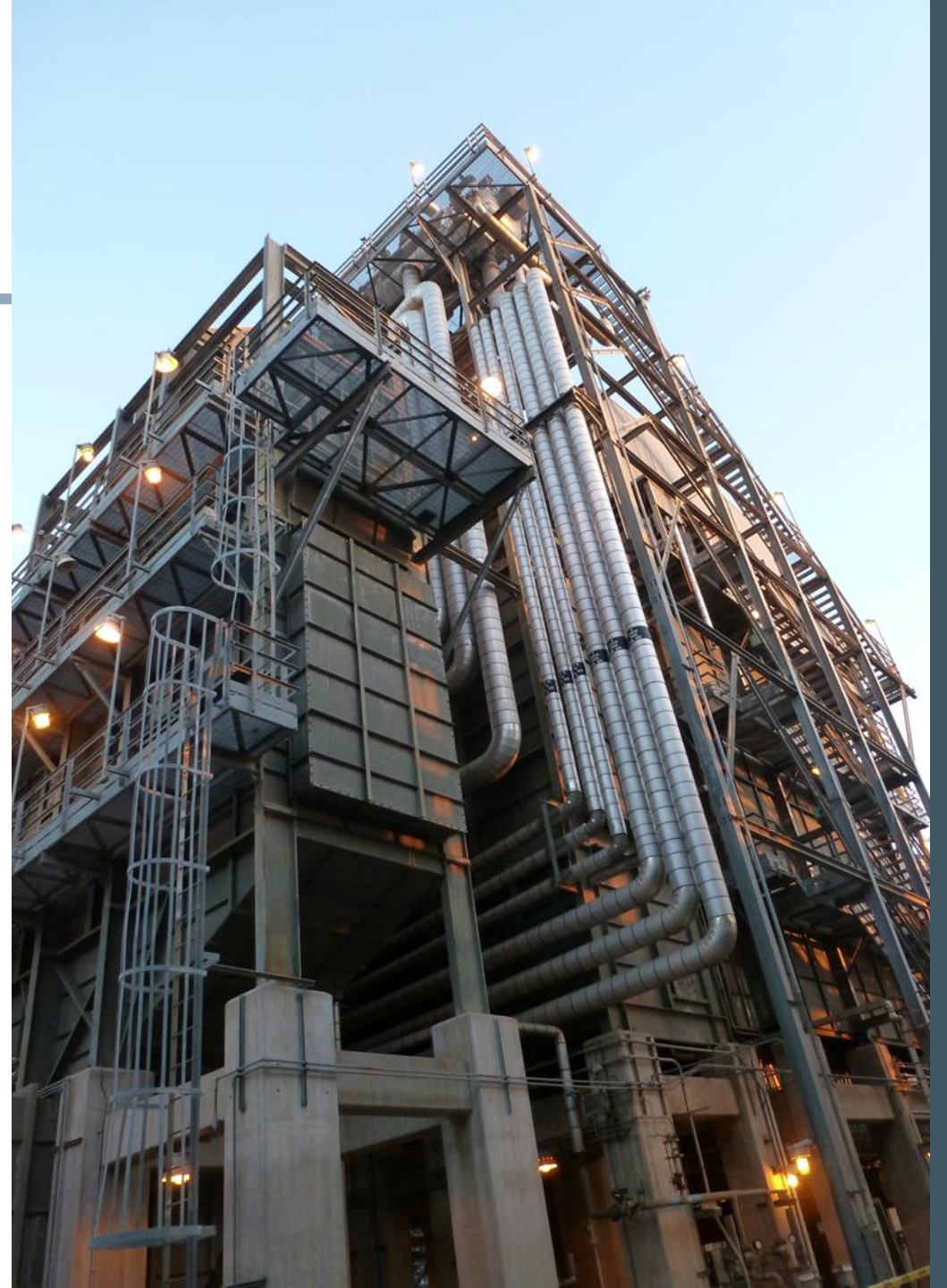
Co-Pollutant Background – BACT Applicability

- Rulemaking discussions for Proposed Rule 1109.1 have highlighted that installations of Selective Catalytic Reduction (SCR) to control NO_x emissions from a refinery boiler or heater can result in secondary particulate matter (PM) emissions
- Under Regulation XIII, emission increases exceeding the NSR threshold would require BACT, modeling, and offsetting for PM₁₀
 - Regulation XIII threshold for PM₁₀ is one pound per day



Co-Pollutant Issue Significance

- Staff has been working with CARB and U.S. EPA on different strategies to address the co-pollutant issue
- PR 1109.1 will be the most significant command-and-control rulemaking to address NOx emissions
 - NOx emission reduction potential is substantial (7 to 9 tons per day)
- NOx reductions from implementing PR 1109.1 is staff's priority in order to attain federal and state ozone standards
 - South Coast basin is in extreme non-attainment for the federal ozone standard



Proposed Co-Pollutant Strategy

- Other California air districts have provisions that exempt sources from BACT when complying with a BARCT requirement
- Staff is proposing a similar, more narrow BACT exemption that:
 - Will be limited to projects needed to transition from RECLAIM to command-and-control
 - Will be limited to a rule that establishes BARCT emission limits for an ozone precursor where the project is “solely the addition” of air pollution control equipment
 - Will not apply to additional improvements, upgrades, or capacity increases that are included as part of the installation of the air pollution control equipment
 - Will be limited to non-ozone precursor emission increases that are below the federal NSR thresholds
 - Will not apply to ammonia emissions associated with installation of SCR

SB 288 Applicability

- Adding an exemption for non-ozone precursor emission increases from the installation of air pollution control equipment in Regulation XIII is not expected to result in an SB 288 issue
- SB 288 requires no backsliding of South Coast AQMD's NSR provisions that existed as of December 30, 2002
- In 2002, South Coast AQMD had two NSR programs:
 - Regulation XIII for non-RECLAIM facilities
 - Rule 2005 for RECLAIM facilities
- SB 288 baseline for reviewing NSR changes for RECLAIM facilities will be RECLAIM NSR (Rule 2005 and the entire RECLAIM program)
- Incorporating an exemption for these installations in Regulation XIII is not backsliding since the command-and-control provisions for RECLAIM facilities did not exist in 2002

SB 288 Applicability (*Continued*)

- Under RECLAIM, operators have the choice to install pollution controls or purchase RTCs
- Without the proposed command-and-control requirements where SCR is needed to meet a NOx BARCT standard, it is unlikely that refineries would implement projects to meet that standard
 - Refineries would likely purchase RTCs instead of installing SCR as the fuel gas projects are more than \$100 million
- Under command-and-control operators must meet the NOx BARCT standard, which is not a mandatory requirement in RECLAIM
- Staff believes the co-pollutant issue is tied to the proposed command-and-control BARCT requirements that will require SCR

Co-Pollutant Strategy Summary

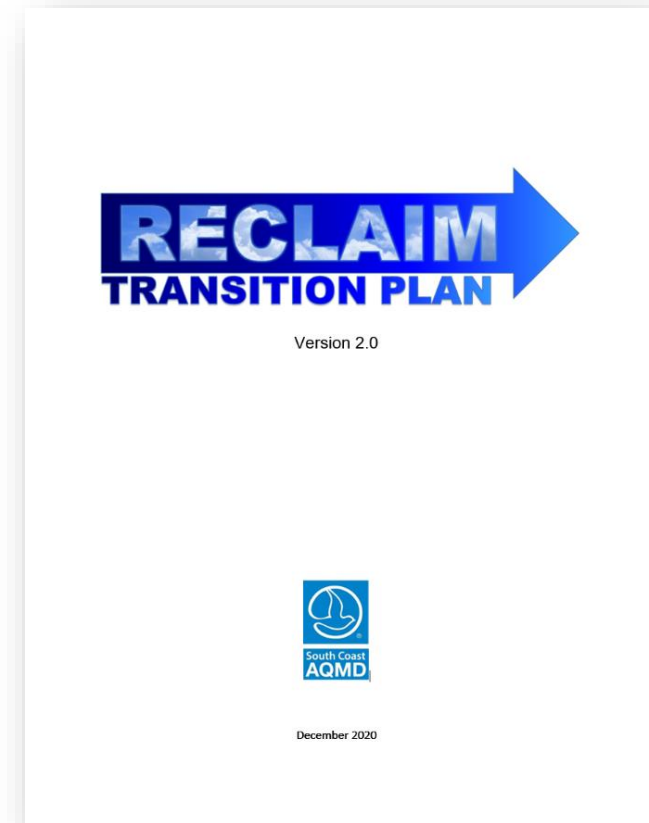
- Staff is proposing a BACT exemption for non-ozone precursor emission increases associated with air pollution control equipment installations to comply with NOx BARCT standards
- Staff worked with CARB and U.S. EPA to develop the proposed strategy
 - CARB is supportive of the co-pollutant strategy
 - U.S. EPA agrees that BACT is not triggered unless federal thresholds are exceeded
 - For major sources over 70 tons per year, the major modification thresholds are 15 ton per year for PM10 and 10 tons per year for PM2.5
- Staff will address refinery fuel sulfur content during the transition of SOx RECLAIM

Working Group Meeting Summary

- Capacity Utilization for Quantification of Offsets Without Records
 - U.S. EPA is recommending use of conservative Capacity Utilization rate of 70% when no records are available for the Internal Bank and L-ERCs
- Generation of ERCs for the Open Market
 - Based on stakeholder comments, staff is no longer exploring stopping the generation of ERCs to seed the Large Source Bank
- Responses to Regulation XIII Comment Letters
 - Federal NSR requirements will be incorporated by reference
 - Staff will work with stakeholders if specific requirements are needed to provide clarity or to streamline implementation of the federal applicability test
 - In lieu of permit limits based on projected actual emissions, recordkeeping and reporting will be required
 - Staff will work with stakeholders and consider federal guidance to establish when recordkeeping and reporting will apply
- Co-Pollutant Strategy
 - Staff is proposing a BACT exemption for non-ozone precursor emission increases associated with air pollution control equipment installations to comply with NOx BARCT standards

Next Steps

- Will discuss stakeholder comments on the RECLAIM Transition Plan (Draft Version 2.0) at the next working group meeting
- Staff is currently working on several key aspects for the Large Source Bank
 - Expect to discuss at upcoming working group meetings
- Staff will continue working with U.S. EPA, CARB, and stakeholders to resolve NSR issues



Contacts

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