

Proposed Amendments to
Regulation XX – NO_x RECLAIM
Shutdown Provisions
Working Group Meeting

August 30, 2016
SCAQMD
Diamond Bar, CA

Comment Letters Received

- Amerex Brokers, LLC– 8/18/16
- California Council for Environmental Economic Balance (CCEEB) – 8/26/16
- California Construction and Industrial Materials Association (CalCIMA)– 8/26/16
- ES Engineering – 8/26/16
- NRG Energy Inc – 8/26/16
- Southern California Air Quality Alliance – 8/18/16
- Southern California Gas Company – 8/26/16
- Tesoro – 8/26/16
- Western States Petroleum Association (WSPA) - 8/8/16 and 8/26/16

Key Issues and Comments

- General support for facility versus partial or equipment shutdowns
- Applicability of shutdown provision - De minimis level
- Definition of “Same Ownership”
- Insufficient holdings to surrender RTCs
- Credit for going beyond BARCT
- Discrete year sales of RTCs during Planned Non-Operational (PNO) Shutdown and during process of calculating shutdown RTCs
- Notification process for facility shutdown
- Criteria for determining temporary shutdown
- Analysis of impact of shutdown provision on RECLAIM and comparison with command and control

Overview of Revisions

- Revisions in response to key issues and comments
- Added clarity for calculation methodology and process for identifying shutdowns

Overall Process

- Shutdown facility can be identified from:
 - Owner or operator notifying the Executive Officer of shutting down - paragraph (i)(2); or
 - Executive Officer notifying owner or operator that facility has been deemed shutdown through either:
 - Review of emissions data and facility information paragraph (i)(8); or
 - Denial of a Planned Non-Operational Plan – paragraph (i)(9)

Key Issue

Applicability of Shutdown Provisions

Comment	Staff Response
<ul style="list-style-type: none">• Shutdown provisions should have de minimus level – possibly 4 tons per year• Provisions should apply to shutdowns after date of adoption and only future compliance year holdings	<ul style="list-style-type: none">• Staff analyzed emissions and holdings to better understand a “cut point”• Analysis considered:<ul style="list-style-type: none">• Potential influx of RTCs from a shutdown that could affect delay of BARCT controls• Resource impacts to implement shutdown provision

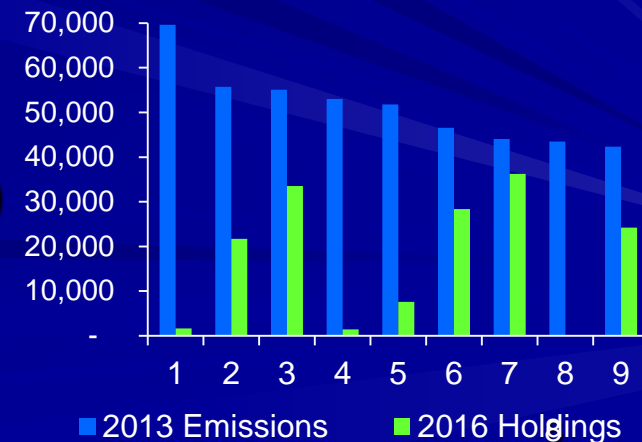
Staff Analysis

Applicability of Shutdown Provisions

- Analyzed potential RTCs that can enter open market from a shutdown based on 2016 holdings
- Greatest impact for shutdown RTCs are from facilities on Table 7 and 8
 - Table 7 and 8 facilities represent ~86% of 2016 holdings and 86% of 2013 emissions

Potential Impact of Non-Table 7 and 8 Facilities

- Average 2016 holdings for non-Table 7 and 8 facilities is ~4.6 tons/year
- No facility with holdings near that of Cal Portland - Facility with highest 2016 holdings is ~0.5% of Cal Portland's 2009 holdings
- Only nine non-Table 7 and 8 facilities have 2013 emissions >20 tons/year
 - 2016 holdings are much lower than emissions (~38% lower on average)
 - Not a substantial supply of shutdown RTCs



Analysis of Table 7 and 8 Facilities

- Shutdown of Table 7 and 8 facilities can impact installation of BARCT controls for all facilities
 - If a large Table 7 facility were to purchase shutdown RTCs to maintain current emissions past 2022, the average magnitude of RTCs required would be ~200 tons/year
 - Represents on average about 40 non-Table 7 and 8 facilities shutting down (based on 2016 holdings)

Analysis of Table 7 and 8 Facilities (*Continued*)

- Shutdown of Table 7 and 8 facilities can impact installation of BARCT controls for all facilities (*continued*)
 - The largest Table 7 facilities have holdings on the order of what Cal Portland Cement held before sell-off
 - Holdings from a shutdown from an average Table 7 and 8 facility represents ~37 non-Table 7 and 8 facilities*

* Average holdings from Table 7 and facilities is 186 tons/year, average 2013 emissions from non-Table 7 and 8 facilities is 5 tons/year

Staff Recommendation

Applicability of Shutdown Provision

- Added “applicability” to subdivision – paragraph (i)(1)
- Clarified that shutdown provisions apply from date of adoption
- Shutdown provisions apply to only Tables 7 and 8 facilities with an initial allocation (excludes brokers)
- Clarify provisions apply to shutdowns after date of adoption and only future compliance year holdings

Key Issue

Credit Beyond BARCT

Comment	Staff Response
<ul style="list-style-type: none">• Additional provision needed to credit installation of control equipment going beyond BARCT• One basic premise of RECLAIM is the incentive to install equipment beyond BARCT• PAR 2002 may discourage future investments in equipment beyond BARCT	<ul style="list-style-type: none">• Calculation is neutral for equipment beyond BARCT<ul style="list-style-type: none">• No deduction or credit of RTCs for equipment beyond BARCT• Future investments not discouraged – operator keeps holdings for equipment beyond BARCT• “Crediting” facilities below BARCT incentivizes facility shutdowns

Staff Recommendation

Credit Beyond BARCT

- Added clarity to calculation methodology such that deduction in holdings is based on only equipment above BARCT
- Amount of NO_x RTCs reduced is the difference between:
 - The average of actual NO_x emissions from equipment that is operated at a level greater than the most stringent applicable BARCT emission factors during the highest 2 of the past 5 compliance years; and
 - The average NO_x emissions from the same equipment that would have occurred in those same 2 years if the equipment was operated at the most stringent applicable BARCT emission factors

Sample Calculation

Equipment	Current Level	Most Stringent Applicable BARCT	Above or Below BARCT	Adjustment (Difference Between Current Level and Most Stringent Applicable BARCT)
Equipment 1	20	25	Below	None
Equipment 2	30	35	Below	None
Equipment 3	75	50	Above	25
Equipment 4	80	60	Above	20
Adjustment to Holdings				45

- In practice, “below BARCT” differential (i.e. 4 ppm vs. 5 ppm) expected to be small relative to “above BARCT” differential (i.e. 20 ppm vs. 5 ppm)

Key Issue: Same Ownership

Comment	Staff Response
<ul style="list-style-type: none">• Defining same ownership based on the 6-digit NAICS code is too narrow	<ul style="list-style-type: none">• Reviewed EPA definition of same ownership• Agree NAICS code may be too narrow and may not address facilities under same ownership• Focused on “same ownership” instead of dependency of one operation on the other

Staff Recommendation Same Ownership

- 30 days from date of adoption, an owner or operator must submit a declaration of the facilities under same ownership
- Same ownership must be established as of September 22, 2015

Staff Recommendation

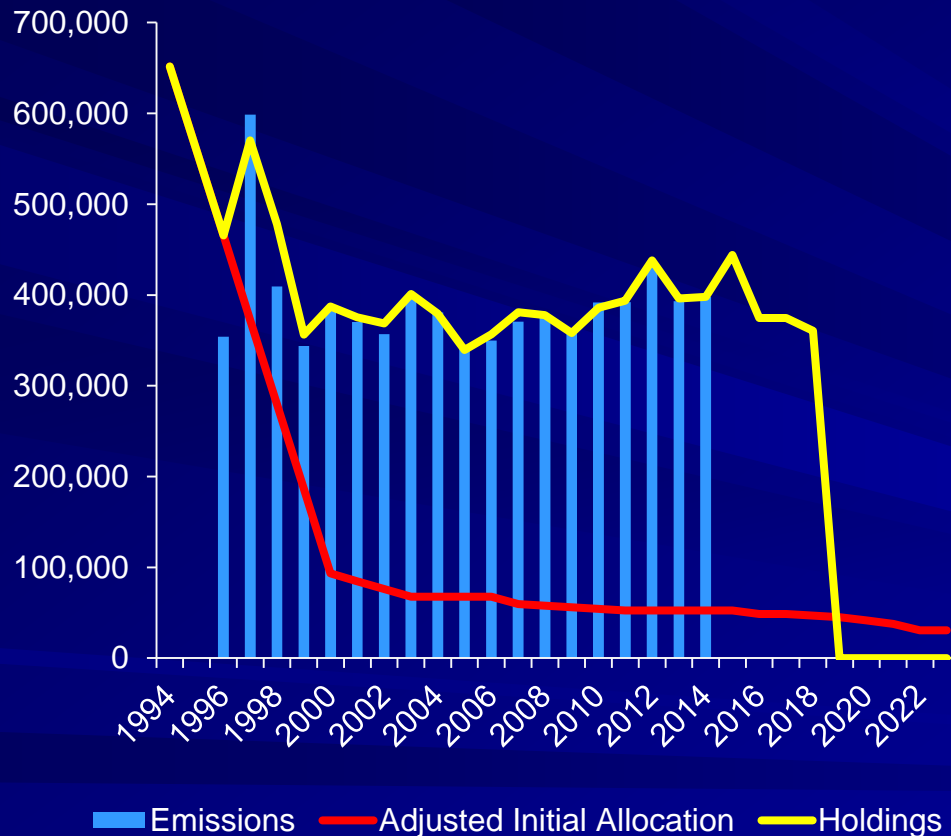
Same Ownership *(Continued)*

- If the Executive Officer deems the facilities under same ownership
 - Facility that shuts down may transfer NO_x RTCs to any facility under the same ownership - all holdings transferred are deemed non-tradable
 - NO_x RECLAIM facility that is shutdown is exempt from shutdown provisions (paragraphs (i)(3) through (i)(7))
- If the Executive Officer deems facilities are not under same ownership or same ownership facilities elect not to utilize this provision
 - NO_x RECLAIM facility shall be subject to shutdown provisions (paragraphs (i)(3) through (i)(7))

Key Issue: Insufficient Holdings to Surrender RTCs

Comment	Staff Response
<ul style="list-style-type: none">• RTCs sold prior to Governing Board adoption should be excluded and only transactions recorded within five (5) years of the facility shutdown should be required to surrender• If the facility cannot surrender RTCs, would there be a fine - possibly equivalent to the current market price?	<ul style="list-style-type: none">• Analyzed emissions and holdings of all Table 7 and 8 facilities• Identified only one facility that if the facility shutdown, would need to go to the open market – sold all future holdings

Analysis of Impact of Going to Open Market



- If facility shutdown, maximum adjustment would be the Adjusted Initial Allocation
 - 2020: 41,451 lbs/year
 - 2022: 30,512 lbs/year
- Total holdings from Table 7 and 8 facilities
 - 2020: 10,680,000 lbs/year
 - 2022: 7,062,907 lbs/year
- Amount of RTCs needed represents ~0.4% of total holdings in Table 7 and 8
- Percentage would be even smaller for entire market

Staff Recommendation

Insufficient Holdings to Surrender RTCs

- Retain provision that requires an owner or operator to purchase or surrender RTCs
 - If the reduction of NO_x RTCs calculated pursuant to paragraphs (i)(3) through (i)(5) exceeds the NO_x RTC holdings, the owner or operator of the NO_x RECLAIM facility shall purchase and surrender sufficient RTCs to fulfill the entire reduction requirement (paragraph (i)(6))

Key Issue: Process for Notification of Shutdown


Comment	Staff Response
<ul style="list-style-type: none">• There should be an early notification from the SCAQMD to a facility that it is being considered as shutdown• List of reasons a facility is shutdown may not be encompassing of all situations	<ul style="list-style-type: none">• Incorporated initial step to notify facility it is being considered as potentially shutdown• Removed provision that deems a facility shutdown if the Executive Officer does not respond• Added criteria for determining a shutdown (instead of list) – covers more situations

Process for Executive Officer Determining a Facility Shutdown

NOx emissions from APEP report shows substantial decrease in facility-wide emissions



Executive Officer notifies owner or operator that facility is under review as potentially shutdown



Within 60 days, owner or operator must notify the Executive Officer:

- Facility is shutdown; or
- Submit information to substantiate facility is not shutdown

Criteria for Determining a Facility Shutdown

Permanent Emission Reductions

- Implementation of an emissions control strategy such as, but not limited to implementation of:
 - Pollution control strategies,
 - Efficiency improvements,
 - Process changes,
 - Material substitution, or
 - Fuel changes

Temporary Emission Reductions

- Temporary NO_x emission reductions include, but are not limited to:
 - Cyclic operations,
 - Economic fluctuations,
 - Temporary shutdown of equipment due to equipment maintenance, repair, replacement, permitting, compliance, or availability of feedstocks or fuels

Planned Non-Operational Shutdown

- The facility has an Approved Planned Non-Operational Plan

Process for Planned Non-Operational Plan Application

Submitting a Planned Non-Operational (PNO) Plan

- Owner or operator submits a Planned Non-Operational (PNO) Plan Application to request status for a non-operational for two to 5 consecutive years

Executive Officer Review of PNO Plan Application

- Executive Officer reviews and approves or disapproves the PNO Plan Application within 180 days of receiving a complete PNO Plan Application

Disapproval of PNO Plan Application

- If disapproved and facility is deemed shutdown, must comply with shutdown provisions (paragraphs (i)(3) through (i)(6))

Approval of PNO Plan Application

- If approved, the owner or operator may sell current compliance year RTCs and future year NOx RTCs shall become non-tradable for the duration of the PNO status

Key Issue

Grace Period for Discrete RTC Sales

Comment	Staff Response
<ul style="list-style-type: none">• Discrete RTCs should be allowed to be sold during the period in which a shutdown determination is being made by the Executive Officer	<ul style="list-style-type: none">• Agree that discrete RTCs within the compliance year can be sold when the determination is being made• Greater concern is for IYB RTCs• Clarify that no future compliance year RTCs can be sold

Grace Period for Discrete RTC Sales

- The owner or operator of a NO_x RECLAIM facility that notifies the Executive Officer or is deemed shutdown shall:
 - Not sell any future compliance year RTCs;
and
 - May only sell current compliance year RTCs until the reduction of NO_x RTCs is applied pursuant to paragraph (i)(3) through (i)(6).

Comparison of Proposed Provisions and Command and Control

Category	Command and Control	RECLAIM Shutdown Provisions
Discounting Credits	Discounts shutdown ERCs to BACT Level	Discounts shutdown RTCs to BARCT level
Credits for Beyond BACT or BARCT	No credit for equipment beyond BACT	No credit for equipment beyond BARCT
Applicability of Shutdown Provisions	Equipment	Facility-wide
Basis of Emissions for Shutdown Calculation	Sum of two years of actual emissions (based on days of operation)	Average of the two highest years of past five years of actual emissions

Next Steps

- Set Hearing
 - September 2, 2016
- 30-day Package
 - September 6, 2016
- Stationary Source Committee Meeting
 - September 16, 2016
- Public Hearing
 - October 7, 2016 (Offsite Board Meeting)

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