SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report
Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM)

April 2004

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EXECUTIVE SUMMARY

The AQMD Governing Board adopted the Regional Clean Air Incentives Market (RECLAIM) program in 1993. The purpose of the RECLAIM program was to reduce NOx and SOx emissions through a market-based program. It was designed to provide facilities with the flexibility to seek the most cost-effective solution to reduce their emissions. The program replaced a series of existing command-and-control rules and control measures specified in the 1991 Air Quality Management Plan (AQMP). RECLAIM applies to facilities emitting 4 tons or more per year of NOx and/or SOx in the year 1990 or any subsequent year, excluding certain essential public services that remain under command-and-control such as landfills, public transit, and fire fighting facilities. There are currently 332 facilities under the RECLAIM NOx program.

SCAQMD staff is proposing amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM) to achieve additional NOx reduction goals outlined in the 2003 AQMP. Amendments are proposed to address Best Available Retrofit Control Technology (BARCT) requirements, which may require installation or modification of NOx emission control equipment. In addition, other rule changes are proposed to address potential backstop measures including a set-aside and non-tradable credits for power plants, and to address a SIP issue raised by the Environmental Protection Agency (EPA) to track and develop a mechanism to address potential unmitigated breakdown emissions. Other changes proposed include clarifications to the rules and protocols, and adding an alternative method of compliance demonstration for equipment with high oxygen content in the exhaust and adjustments to the testing schedule for equipment that is operated sporadically.

As discussed below, the proposed amendments to the RECLAIM rules contain several key elements.

Amend Rule 2002 to:

- Achieve reductions in NOx emissions by the year 2010 in accordance with Control Measure #2003CMB-10 in the 2003 AQMP and the BARCT requirements under state law;
- Establish non-tradable allocation credits for power producing facilities to be used in the event that the demand in electrical generation exhausts facility allocations and RTC holdings;

Amend Rule 2015 to:

- Amend Rule 2015 by addressing EPA's concerns relative to mitigation of breakdown emissions; and,
- Amend Rule 2015 by creating a "set-aside" of NOx RTCs for qualifying RECLAIM facilities as a backstop measure in the event that the average quarterly RTC price exceeds $15,000 per ton.

Other proposed amendments include:

- Rule 2002 - add a new emission factor for micro-turbines and clarify that the ending emission factors in Table 1 are specifically for Tier 1, compliance year 2000, and add further emission reductions beyond 2003 total allocations;
- Rule 2007 – coincide: 1. the end date for using NOx RTCs to reconcile emissions to the end of a quarter; and 2. to have the trading restrictions lifted on power producing facilities effective on the date of adoption of the proposed amendments, instead of on September 1, 2004;
- Rule 2009 - remove the requirement for power producers to apply for and keep detailed records of environmental dispatch procedures;
- Rule 2010 - clarify the procedure for reducing annual emissions allocations for exceedances that violate the requirements in Rule 2004 (d); and
- Rules 2011 and 2012, including their respective protocols
    - adjust the schedule for Relative Accuracy Test Audits (RATA) for equipment that is operated sporadically, and by adding alternative methods of compliance testing for natural gas combustion sources with high oxygen contents in the exhaust stream; and
    - make administrative and other minor changes such as correcting typographical errors, clarifying the rule language, and updating the protocols.

Staff is currently seeking input on the proposed rule amendments and potential impacts related to the various elements of the proposal.

CHAPTER 1

BACKGROUND

Introduction

Public Process

Introduction

On October 15, 1993, the SCAQMD Governing Board adopted Regulation XX, referred to herein as the RECLAIM program, which is a market-based program to reduce NOx and SOx emissions and subsequently help meet air quality standards while providing facilities with the flexibility to seek the most cost-effective solution for achieving the required reductions. Instead of setting specific limits on each piece of equipment and each process that contributes to air pollution as is required by traditional 'command-and-control' regulations, under the RECLAIM program each facility has a NOx and/or SOx annual emissions limit (allocation) and facility operators can decide what equipment, processes and materials they will use to reduce emissions to meet or go further below their annual emission limits. In lieu of reducing emissions, facility owners or operators may elect to use the trading market to purchase RTCs from other facilities that have reduced emissions below their annual target. The RECLAIM program was designed to achieve by year 2003 the same level of emission reductions as would have otherwise been achieved in aggregate by implementing the command-and-control rules.

To assure a more liquid market, as well as protect RECLAIM participants from price fluctuations that may be caused if all the RTCs expire at the same time, two trading cycles were established. Further, to balance emissions among the participating facilities in the RECLAIM program, the affected facilities were randomly divided into two cycles which vary by compliance year. That is, the Cycle 1 compliance year spans from January 1 to December 31 while the Cycle 2 compliance year spans from July 1 to June 30. A backstop level of $15,000 per ton was established to trigger program reevaluation.

Historical Background

Between compliance year 1994 and compliance year 1999, NOx emissions at RECLAIM facilities, in aggregate, were below the annual allocations, and the price of NOx RTCs remained relatively stable, ranging from $1,500 to $3,000 per ton. However, beginning June 2000, RECLAIM program participants experienced a sharp and sudden increase in NOx RTC prices for both 1999 and 2000 compliance years. This was mainly due to an increased demand for power generation due to the California energy situation which resulted in this industry purchasing a large quantity of RTCs and depleting the supply of available RTCs. The average price of NOx RTCs for compliance year 2000, traded in the year 2000 increased sharply to over $45,000 per ton compared to the average price of $4,300 per ton traded in 1999. Since the RTC price for NOx exceeded the backstop price of $15,000 per ton, an evaluation of the RECLAIM program was triggered.

The Governing Board, at its October 2000 meeting, directed staff to examine the issues affecting the high price of NOx RTCs and recommend actions to stabilize NOx RTC prices. Additionally, the Governing Board directed the Executive Officer to form an Advisory Committee to provide input to staff regarding possible approaches to stabilize NOx RTC prices. Fourteen power producing facilities, each with a generating capacity of 50 megawatts (MW) or greater, purchased 67 percent of the NOx RTCs that were traded during compliance year 2000, suggesting that the increase in NOx RTC prices were primarily due the power producer demand on the market. However, the annual allocations for all the power producers only accounted for approximately 14

percent of total RECLAIM annual allocations for compliance year 2000. At the same time, the RECLAIM program reached the point in the program termed the 'cross-over point' where emissions equal allocations because many RECLAIM facilities, relying on previously low RTC prices, did not determine that it was more cost-effective to begin installing controls until after the RTC prices had peaked.

In recognition of the inherent lag time between the decision of facility operators to add controls to the actual installation and operation of new control equipment, the Governing Board concluded that immediate changes to the RECLAIM program were necessary and, at the January 19, 2001 Board Meeting, directed staff to form a working group to develop and propose amendments to the RECLAIM program. The goal of the proposed amendments was to implement realistic, effective solutions to reduce and stabilize the prices of NOx RTCs. In May 2001, Regulation XX was amended to place trading restrictions on power producing facilities with the provision that they could fully rejoin the trading market in the 2004 compliance year, provided that the Governing Board determined prior to July 2003 that their re-entry would not result in any negative effect on the remainder of the RECLAIM facilities or on California's energy security needs. In addition, the amendments also required the power plants to install BARCT. Lastly, credit generation rules and a Mitigation Fee Program were established for the power plants to make up excess emissions.

Pursuant to these requirements, staff examined the energy security needs of California and the potential impacts on the RECLAIM market and the Governing Board determined that reentry of the power plants would not be expected to have a negative impact on California's energy security needs or on other RECLAIM facilities. Overall, power plants equipped with BARCT have decreased their NOx emission rates by approximately 80 percent or more from previously uncontrolled levels.

Based on these emission levels, the 14 power producing facilities are anticipated to emit a total of 1,395 tons per year of NOx and their total annual allocations are 1,705 tons per year for each year from 2003 to 2010. Further, current RTC holdings for the compliance years beginning in 2003 up to 2010 range from 1,550 to 2,330 tons per year of NOx. This represents an excess in current NOx RTC holdings ranging from 155 to 935 tons per year. When considering the data relative to the typical annual operational capacity of a power producing unit at below 30 percent, except for 2001 when in-Basin units operated at 35 percent capacity, on average it would take all units operating at a capacity of 55 percent to cause a shortage in NOx RTCs. Therefore, based on projected excess RTCs and typical operating capacities, power producers are now considered likely to be sellers of NOx RTCs in the RECLAIM program. For these reasons, the Governing Board at the June 6, 2003 public hearing, made the finding that lifting the trading restrictions for power producers in the RECLAIM trading market would not have a negative effect on the remainder of the RECLAIM facilities or on California's energy security needs. Subsequently, the Governing Board adopted proposed changes to RECLAIM Rules 2007, 2011, and 2012 at the December 5, 2003 public hearing which removed most of the trading restrictions on power producers. Effective September 2004, the power producers will have unrestricted use of RTCs.

2003 AQMP

The 2003 AQMP was approved by the Governing Board in August 2003. Subsequently, the AQMP was approved by the state Air Resources Board (ARB) and submitted to EPA to update the State Implementation Plan (SIP). The 2003 AQMP contained a control measure calling for additional NOx emission reductions from RECLAIM. Specifically, the control measure seeks approximately three (3) tons per day NOx from the program by the end of the 2010 compliance year. The amount will be determined during this rule development effort, based on an analysis of BARCT.

As required in the California Health and Safety Code (HSC) §39616, which is applicable to market-based incentive programs, RECLAIM must result in an equivalent level of emission reductions at an equivalent cost as would have been achieved under a command-and-control regulatory structure. This equivalency demonstration was made when the RECLAIM program was adopted in October 1993 and again seven years after rule adoption. In addition to making these demonstrations, the District found that the program met the BARCT requirements of HSC §40440 for all facilities, including power plants. It should be noted that this is an on going requirement and as such will be evaluated in the future every three years with AQMP updates.

Public Process

A Public Consultation meeting was held on November 19, 2003 to discuss the December 2003 amendments and to introduce the concepts for the current proposal. It was attended by approximately 30 people including representatives from AQMD, CARB, and RECLAIM facilities.

A RECLAIM Working Group meeting was held on March 19, 2004 to receive input on the staff proposal, which included discussions of the impact analysis and proposed amendment rule language. Additional meetings have been scheduled for April 1 and 15, 2004, and in the months of May and June 2004 to review staff's assessment of BARCT and to discuss the rule proposals.

A Public Workshop is scheduled for April 7, 2004.

CHAPTER 2

PROPOSED AMENDMENTS TO REGULATION XX - RECLAIM

Introduction

SCAQMD staff is currently proposing amendments to some of these existing RECLAIM rules to achieve additional NOx reduction goals outlined in the 2003 AQMP. Amendments are proposed to address Best Available Retrofit Control Technology (BARCT) requirements, which may require installation or modification of NOx emission control equipment. In addition, other rule changes are proposed to address potential backstop measures including a set-aside and non-tradable credits for power plants, and to address a SIP issue raised by the Environmental Protection Agency (EPA) to track and develop a mechanism to address potential unmitigated breakdown emissions. Other changes proposed include clarifications to the rules and protocols, and adding an alternative method of compliance demonstration for equipment with high oxygen content in the exhaust and adjustments to the testing schedule for equipment that is operated sporadically.

Regulation XX

SCAQMD initially adopted Regulation XX - RECLAIM in October 1993. At that time, the Regulation consisted of 12 rules, as follows:

- Rule 2000 – General, contains the program objective, purpose, and definitions;
- Rule 2001 – Applicability, sets criteria for inclusion in RECLAIM;
- Rule 2002 – Allocations for NOx and SOx, establishes the mechanism for deriving facility allocations;
- Rule 2004 – Requirements, contains requirements for demonstrating requirements;
- Rule 2005 – New Source Review for RECLAIM; delineates requirements for new, modified, and relocated equipment, as well as trading zones;
- Rule 2006 – Permits, establishes requirements for issuing and amending facility permits;
- Rule 2007 – Trading Requirements, sets the terms and conditions for trading of RTCs;
- Rule 2008 – Mobile Source Credits, contains requirements for use of emission reduction credits generated by mobile sources;
- Rule 2010 – Administrative Remedies and Sanctions, establishes the penalty structure for violation of RECLAIM requirements, such as emissions in excess of allocations;
- Rule 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for SOx, contains the operational requirements for SOx emitting equipment at RECLAIM facilities;
- Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for NOx, contains the operational requirements for NOx emitting equipment at RECLAIM facilities; and
- Rule 2015 – Backstop Provisions, contains requirements for annual and three-year audits, and steps to be taken in the event certain program parameters are exceeded, such as the price of RTCs.

In May 2001, three additional rules were added, bringing the total number of rules in Regulation XX to 15. These rules are:

- Rule 2009 – Compliance Plans for Power Producing Facilities, establishes requirements for installation of control equipment at power plants with an electrical generating capacity greater than fifty (50) megawatts;
- Rule 2009.1 – Compliance Plans and Forecast Reports for Non-Power Producing Facilities, establishes requirements for non power producing facilities emitting 25 tons or more of NOx to submit a plan outlining their compliance strategy; and
- Rule 2020 – RECLAIM Reserve, created a reserve of NO_x emission reductions that can be used for the RECLAIM Air Quality Investment Program (RECLAIM AQIP), Mitigation Fee Program, or natural gas turbine power plant peaking sources.

Proposed Amendments

As discussed below, the proposed amendments to the RECLAIM rules contain several key elements.

Amend Rule 2002 to:

- Achieve reductions in NOx emissions by the year 2010 in accordance with Control Measure #2003CMB-10 in the 2003 AQMP and the BARCT requirements under state law;
- Establish non-tradable allocation credits for power producing facilities to be used in the event that the demand in electrical generation exhausts facility allocations and RTC holdings;

Amend Rule 2015 to:

- Amend Rule 2015 by addressing EPA's concerns relative to mitigation of breakdown emissions; and,
- Amend Rule 2015 by creating a "set-aside" of NOx RTCs for qualifying RECLAIM facilities as a backstop measure in the event that the average quarterly RTC price exceeds $15,000 per ton.

Other proposed amendments include:

- Rule 2002 - add a new emission factor for micro-turbines and by clarifying that the ending emission factors in Table 1 are specifically for Tier 1, compliance year 2000;
- Rule 2007 - coincide the end date for using NOx RTCs to reconcile emissions to the end of a quarter and to have the trading restrictions lifted on power producing facilities become effective on the date of adoption of the proposed amendments instead of on September 1, 2004;
- Rule 2009 - remove the requirement for power producers to apply and keep detailed records of environmental dispatch procedures;
- Rule 2010 - clarify the procedure for reducing annual emissions allocations in response to exceedances that violate the requirements in Rule 2004 (d); and
- Rules 2011 and 2012, including their respective protocols
    - adjust the schedule for Relative Accuracy Test Audits (RATA) for equipment that is operated sporadically, and by adding alternative methods of compliance testing

for natural gas combustion sources with high oxygen contents in the exhaust stream; and

- make administrative and other minor changes such as correcting typographical errors, clarifying the rule language, and updating the protocols.

A detailed summary of each proposed rule amendment follows.

Proposed Amended Rule 2002 – Allocations for Oxides of Nitrogen (NO_X) and Oxides of Sulfur (SO_X)

Adjustment to NOx RTC Holdings

In accordance with analysis prepared in response to Control Measure #2003CMB-10 in the 2003 AQMP which estimates an additional reduction in NOx RECLAIM emissions of three tons per day by 2010, new language is proposed for PAR 2002 in order to achieve emission reductions from all RTC holders by compliance year 2010. The actual amount of reductions will depend on the analysis of what is technically and economically feasible. The proposed changes would also comply with the BARCT requirements applicable to market-based incentive programs in accordance with California's Health and Safety Code H&S §40440. Specifically, the BARCT adjustment that will be made to each facility's allocation and all other RTC holdings will be implemented on a programmatic basis, with an equal percentage reduction to all RTC holdings in compliance year 2010. The reductions are proposed to be implemented over a five-year period with the initial reduction (representing one-fifth of the total adjustment) occurring in compliance year 2006. PAR 2002 proposes a specific percentage to be reduced from the 2003 RTC holdings. The exact percentage is dependent upon the BARCT analysis, which is ongoing and is expected to range between five and 15 percent. The decrease in allocations will be implemented between compliance years 2006 and 2010. Total program RTCs for each compliance year after 2010 will be the same as the allocations in 2010.

The CCAA requires districts to achieve and maintain state standards by the earliest practicable date and for extreme non-attainment areas, to include all feasible measures (H&S §§40913 and 40920.5). The term "feasible" is defined in the 14 California Code of Regulations, section 15364, as a measure " capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." The required use of BARCT for existing stationary sources is one of the specified (feasible) measures. Therefore, staff is evaluating "all feasible measures" by examining the emission limits of other air pollution control district rules and other requirements for equipment categories in the RECLAIM program. Staff is also reviewing the technology and emission limits applied to all categories of equipment in the RECLAIM program. (For a list of RECLAIM equipment, the reader is referred to the tables at the conclusion of Rule 2002) Staff will be proposing new BARCT levels for specific categories of equipment. The proposed BARCT for each category would take into account the range of types and size of equipment in each category.

Historically, the ending factors in Tier I Ending Emission Factors in Rule 2002 represented, for each category of equipment, the level of emission control required by the applicable rule that was

subsumed by RECLAIM. The rule limits subsumed by RECLAIM were also best available retrofit control technology (BARCT) for each category at the time the program started. Additional reductions in facility emission allocations from 2000 to 2003 were required to take the place of reductions from AQMP control measures that were subsumed by RECLAIM. These subsumed control measures represented future BARCT for specific categories of equipment at the time of adoption. BARCT is established by the availability of technology currently in use or that is contained in any air pollution control agency's rules or regulations, any state implementation plan, or any federal air program. BARCT is an emission limit that takes into account environmental, energy, and economic impacts. Programmatic emission reductions will be based on the increased level of control as it applies to the equipment at RECLAIM facilities.

As stated earlier, staff is evaluating all equipment categories under the RECLAIM program. At this time, the following categories of equipment have been preliminarily identified as capable of further emission reductions: turbines (non-Rule 2009); industrial and refinery boilers and heaters; metal melting furnaces; metal heat treating; fluid catalytic cracking units (FCCU); and miscellaneous combustion sources (i.e., ovens, kilns, calciners, dryers, and furnaces). It should be noted that Power Producing Facilities have previously installed BARCT on their electric power generating units pursuant to Rule 2009.

It must be noted that the potential reductions identified by the various equipment categories are those that make any proposed NOx reductions achievable on a programmatic basis and for the purposes of the impact analysis (which may be considered a reasonable worse-case scenario) are assumed to occur in response to the proposed amendments and would be undertaken voluntarily under the existing RECLAIM program. In addition, as with the current regulation or with the proposed project, affected facilities may purchase RTCs instead of implementing physical changes to achieve a reduction in NOx emissions. The proposed amendments to the RECLAIM program would further induce such projects to occur. Either installation/modifications of NOx emission control equipment or RTC purchases may happen as a result of the amendments, as would occur under an active credit trading program.

Non-Tradable Allocation Credits for Power Producing Facilities

In order to address future potential spikes or increases in electrical generation demand, a new subdivision is proposed for Rule 2002 to establish non-tradable allocation credits for power producing facilities subject to the requirements of Rule 2009. Specifically, the proposed non-tradable allocation credits will be made available to power producing facilities and they will be based on a reserved portion (yet to be determined) of their RTC holdings beginning in the 2006 compliance year and for each compliance year thereafter. Non-tradable allocations may only be used for emission increases associated with throughput due to higher electricity generation demand. The non-tradable allocation for the Power Producing Facilities will be funded by a portion of the BARCT reductions from the facilities assessed pursuant to Rule 2002.

Emission Factors

The current version of Rule 2002 does not have an emission factor specifically for micro-turbines. As a default, micro-turbines currently use the same emission factor as for natural gas-

fired turbines which is 413 pounds of NOx per million standard cubic feet (lbs NOx/mmcf) of fuel. A proposed emission factor specific to micro-turbines of 54.4 lbs NOx/mmcf of fuel would be added to Table 1 in Rule 2002. In addition, Table 1 will be clarified to reflect that the ending emission factors are for compliance year 2000.

Proposed Amended Rule 2007 – Trading Requirements

The current version of Rule 2007 limits facilities from reconciling emissions using NOx RTCs that were purchased on or after January 12, 2001 and ending August 31, 2004, unless certain criteria are met. To allow power producing facilities a smooth transition as they re-enter the full trading market, PAR 2007 contains a proposal to have the effective date for when the trading restrictions are lifted to occur on the date of adoption of the proposed amendments.

Proposed Amended Rule 2009 – Compliance Plans for Power Producing Facilities

The current version of Rule 2009 requires each power producing facility with a generating capacity of 50 MW or greater to prepare a compliance plan that ensures timely installation of BARCT at all electric generation units. In addition, for electric generating equipment located in South Coast Air Basin and exceeding 250 MW generating capacity in aggregate, each compliance plan is required to contain 'environmental dispatch procedures' to establish a hierarchy or criteria for operating the lowest NOx-emitting units to the maximum extent feasible during the installation process. Even though the environmental dispatch procedures to expire at the completion of the 2005 compliance year, all affected facilities are currently operating in compliance with the BARCT emission levels such that these requirements are no longer necessary. Thus, for clarity and consistency with the current compliance status and to relieve the affected facilities of recordkeeping requirements that are no longer necessary, amendments to Rule 2009 are proposed to change the sunset date of the environmental dispatch procedures effective upon the date of adoption of the proposed rule amendments.

2010 – Administrative Remedies and Sanctions

This clarification is being added to subdivision (b) to reflect District practices regarding how and when deductions are made. The intent of this amendment to the deduction provision is to clarify how a deduction is made once the Executive Officer makes a determination, through an audit or other means, that a facility has violated Rule 2004(d)(1). This deduction occurs in addition to the company receiving a Notice of Violation and associated penalties. For each quarter that a facility has violated Rule 2004 (d)(1), the Executive Officer will determine the amount by which the allocation was exceeded for that quarter alone. Then the EO will add together the quarterly exceedances to calculate the total annual exceedance. This amount is then deducted from the compliance year after which the EO make the determination that a facility violated Rule 2004 (d)(1).

For example, if a facility exceeded its total annual allocation in the first quarter by 10 pounds and did not purchase sufficient RTCs to cover the exceedance by the end of the reconciliation period

for the first quarter, it will have a quarterly exceedance of 10 pounds. If the company continues to operate without purchasing RTCs and emits 40 pounds in the second quarter, then the facility has a second quarter exceedance of 40 pounds. These 40 pounds would be added to the first quarter exceedance of 10 pounds, for a total exceedance of 50 pounds for the year thus far. If the company still continues to operate without purchasing RTCs, then the subsequent quarterly emissions would also constitute exceedances and would be added to the total until the facility purchased sufficient RTCs to cover the total exceedance. However, if purchases are made in the third quarter that cover the total exceedances for the year, and assuming the facility has no exceedance in the fourth quarter, then the total deduction for the compliance year would be 50 pounds.

Proposed Amended Rule 2011 - Proposed Amended Rule 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions (Protocol) and Proposed Amended Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions (Protocol)

The proposed changes are as follows:

- Rule 2011 and Rule 2012 would change the current submittal due date for monthly interim reports (e.g., by the tenth day of month) to be consistent with the due date for other types of monthly reports (e.g., by the 15th day of the month).

- The protocol for Rule 2012 would be changed to be consistent with the proposed amendments for Rule 2002 to include an emission factor specifically for micro-turbines.

- The protocol for Rule 2012 would allow compliance demonstrations to be based on total mass NOx emissions when testing the exhaust from large natural gas combustion sources and process units to determine compliance with RECLAIM concentration limits provided that all of the following conditions exist:
  - the exhaust gases have an oxygen content greater than 19 percent;
  - there is no other fuel or combustible material present in the process;
  - the affected sources combust a single fuel; and,
  - all exhaust points can be tested.

- Both protocols for Rule 2011 and Rule 2012 would allow alternative scheduling to verify the accuracy of CEMS devices for sources that operate sporadically. The proposed amendments also include requirements for affected facilities to comply with the following:
  - demonstrate that the normal operating schedule for the source is sporadic and cyclical in nature;
  - obtain prior approval for using the alternative procedures; and,
  - demonstrate that the source operation remains the same during the time when postponement of the Relative Accuracy Test Audit (RATA) occurs.

The current versions Rules 2011 and 2012, including their protocols, contain some typographical errors and administrative inconsistencies. For simplicity, administrative corrections are proposed to both rules and they will primarily focus on Chapters 2 and 4, plus Attachment E of Rule 2011 and Chapters 2, 3, and 4, plus Attachment F of Rule 2012.

Proposed Amended Rule 2015 – Backstop Provisions

Breakdown Emissions

Staff is proposing to add a requirement to Rule 2015 to monitor and ensure mitigation of emissions associated with equipment breakdowns. Relative to the May 2001 RECLAIM amendments addressing the electrical generation crisis, EPA raised concerns regarding a previously SIP approved provision (Rule 2004(i)(3)) that allowed facilities, under certain conditions, to not deduct excess emissions associated with equipment breakdowns from the facility's RTC Allocation. The AQMD was notified by EPA that this conflicts with a September 20, 1999 policy that requires mitigation of all excess emissions during equipment malfunctions, startup, and shutdown. It should be noted that although this provision exists, it has never been used. Therefore, any emissions that may have been associated equipment breakdowns have been covered by the facility's RTC holdings.

After numerous discussions with EPA, staff committed in a letter dated April 2, 2002 to address the issue of breakdown emissions under Regulation XX. Specifically, amendments to RECLAIM would be proposed to the Governing Board and, upon adoption, submitted to EPA within 12 months of publishing a final "Conditional Approval" of the May 2001 amendments. The commitment made by staff, and carried out through the proposed rule amendments, would establish a mechanism with the RECLAIM program to ensure mitigation of all excess emissions resulting from breakdowns. To facilitate EPA approval of the 2001 amendments and to address EPA's concerns, RECLAIM is proposed to include the following two elements:

- Require SCAQMD to monitor excess emissions occurring during breakdowns that are not covered by facility RTCs, and to compare that amount to the quantity of available, unused RTCs each year for the entire RECLAIM program, including excess RTC holdings and proposed power plant non-tradables and set-aside RTCs; and,
- Require the mitigation of unmitigated breakdown emissions for the year following the discovery by reducing allocations for all RECLAIM facilities, provided that the annual breakdown emissions from all RECLAIM sources exceeds the quantity of available, unused RTCs.

On May 13, 2002, EPA proposed conditional approval of the May 2001 RECLAIM amendments into the SIP. The conditional approval was finalized and published on September 4, 2003. From that date, the AQMD has 12 months to incorporate the provisions ensuring that all emissions relating from breakdowns be mitigated. Based on the current Board schedule, that would require that these provisions be taken to the Board in a public hearing no later than its August 2004 meeting. The staff's recommendations to include these provisions in Rule 2015 meet the AQMD's obligations in this regard.

Negligible impacts are anticipated from this proposed requirement. A review of RECLAIM records demonstrates that no emissions from RECLAIM facilities have been reported under Rule 2015 and discussions with stakeholders indicated that those emissions have been reported under annual emissions; therefore mitigated. Furthermore, the recent 2002 RECLAIM annual report suggested that facilities typically held at least a few hundred tons per year of excess RTCs as a compliance margin, except during the energy crisis in 2000/2001. It is anticipated that any amount of unmitigated breakdown emissions would be small and given the history of the program, even if it does occur, the need to reduce the next year allocation is unlikely.

Potential Backstop Measures

The electricity generating crisis in 2000-2001 resulted in increased RTC demand and prices, and the need for an investigation of potential additional backstop measures to provide a relief mechanism in the event that prices exceeded $15,000 per ton. In May 2001, the RECLAIM rules were amended to address the RTC price spikes and shortage resulting from the electrical generation crisis. That amendment created a temporary mechanism (i.e., Mitigation Fee Program and Air Quality Investment Program) to provide RECLAIM facilities some relief from high RTC prices. In case of a future crisis, this proposal would provide RECLAIM facilities with RTCs in the interim as staff proposes any needed rule changes.

As a backstop measure in the event that the quarterly average RTC price exceeds $15,000 per ton, amendments are proposed to Rule 2015 to create a “set-aside” of non-tradable RTCs which will be made available to qualifying RECLAIM facilities. The set-aside would be created by deducting a fixed quantity of RTCs (the amount to be determined), in tons per year, from the total reductions required by the proposed amendments of Rule 2002, beginning with the 2006 compliance year. PAR 2015 would make these RTCs available at a cost of $7.50 per pound on a first-come-first-served basis and would limit them to be used only to reconcile emissions pursuant to the requirements in Rule 2004. Transfer of the non-tradable RTCs would only be made to facilities under common ownership. Unused set-aside RTCs will be considered unused RTCs received from non-tradable RTC transactions will be applied to funding projects that are expected to achieve real and quantifiable emission reductions.

Obsolete Language

The requirement pertaining to the review of ending emission factors as found in paragraph (c)(3) is obsolete and thus, is proposed for deletion from Rule 2015.

CHAPTER 3

IMPACT ASSESSMENT

Introduction

Impact Analysis

California Environmental Quality Act (CEQA) Analysis

Socioeconomic Assessment

Draft Findings under California Health and Safety Code

Introduction

This chapter assesses the impacts associated with the proposed amendments to Regulation XX - RECLAIM.

Impact Analysis

Relative to the proposed amendments, there are four key areas that may potentially impact facilities:

- RTC holding reductions by the year 2010 pursuant to the 2003 AQMP and BARCT adjustment requirements under state law;
- Establishing non-tradable allocations for Power Producing Facilities;
- A "Set-Aside" of RTCs as a backstop measure;
- Mitigation of emissions resulting from breakdown of equipment (SIP approvability issue); and

A set of proposed administrative and other minor changes, including correction of typographical errors, rule clarifications, and protocol updates would not pose an impact on facilities.

Impacts of the proposed amendments will be further evaluated after the emission reductions based on the BARCT determination and likely controls have been made.

California Environmental Quality Act (CEQA) Analysis

Pursuant to the California Environmental Quality Act (CEQA) and the AQMD's Certified Regulatory Program (Rule 110), the SCAQMD has prepared a Notice of Preparation/Initial Study (NOP/IS) for the proposed amendments to Regulation XX. The NOP/IS serves two purposes: 1) to solicit information on the scope of the environmental analysis for the proposed project, and 2) to notify the public that the SCAQMD will prepare a Draft Environmental Assessment (EA) to further assess potential environmental impacts that may result from implementing the proposed project. While the project is expected to generate a direct air quality benefit of reducing NOx emissions, the NOP/IS concludes that secondary adverse impacts to air quality, and hazards and hazardous materials are anticipated. Further, based on the construction activities necessary to comply with the requirements in the proposed amended regulation, the quantity of emissions due to construction may exceed the AQMD's daily significance threshold. Upon completion of the public review and comment period for the NOP/IS, responses to comments received relative to the NOP/IS will be prepared and incorporated into the Draft EA that will be subsequently prepared and circulated for a 45-day public review and comment period.

Socioeconomic Assessment

A socioeconomic analysis of the RECLAIM amendments will be performed. The socioeconomic impacts associated with the CEQA alternatives will also be analyzed. The socioeconomic report will be released no later than 30 days prior to the Board hearing.

Staff is currently seeking input on potential impacts related to implementing the proposed rule amendments, including impacts associated with environmental and socioeconomic impacts.

Draft Findings under California Health and Safety Code

California Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report. In order to determine compliance with Sections 40727, 40727.2 require a written analysis comparing the proposed amended rule with existing regulations. Section 40727.2 analysis is traditionally done for source-specific rule requirements affecting specific types of equipment. Since RECLAIM is essentially a mass cap approach with a declining balance, such analysis is not directly applicable. A comparative analysis, as required by H&S Code §40727.2, is applicable when comparing individual pieces of equipment to a standard. However, this type of analysis is not applicable to the RECLAIM program.

Health and Safety Code Section 40920.6 requires an incremental cost effectiveness analysis for Best Available Retrofit Control Technology (BARCT) rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments, relative to ozone, CO, SOx, NOx, and their precursors. The proposal to amend Rules 2002, 2007, 2010, 2011, 2012, and 2015 does not require emission controls or emission reduction strategies. Therefore, the incremental cost effectiveness analysis requirement does not apply.

Requirement to Make Findings

California Health and Safety Code Section 39616(e) requires the AQMD Governing Board to ratify findings that, relative to the subsumed rules and control measures, RECLAIM (1) achieves equivalent or greater emission reductions at equivalent or less cost, (2) has comparable enforcement and monitoring, (3) does not delay attaining with California ambient air quality standards, (4) allows the use of emissions reduction from other sources such as mobile and area sources, and (5) promotes privatization of compliance and electronic availability of data. The current proposed amendments do not change these original findings. The decrease in NOx RTC holdings demonstrate equivalency with BARCT and equivalent emission reductions that would have occurred under a command-and-control regulatory approach.

Necessity

A need exists to amend Rules 2002 – Allocations for Oxides of Nitrogen (NO_x) and Oxides of Sulfur (SO_x), 2007 – Trading Requirements, 2010 – Administrative Remedies and Sanctions, 2015 – Backstop Provisions, 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions (Protocol), and 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions (Protocol) to seek additional emission reductions from RECLAIM relative to the 2003 AQMP (Control Measure #2003CMB-10), to demonstrate BARCT equivalence pursuant to California Health and Safety Code §40440, and to make changes necessary for the ongoing administration of the program. A need also exists to address a SIP approvability issue to ensure mitigation of emissions from equipment breakdowns.

Authority

The AQMD Governing Board has authority to amend existing Rules 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), 2007 – Trading Requirements, 2010 – Administrative Remedies and Sanctions, 2015 – Backstop Provisions, 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions (Protocol), and 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions (Protocol), pursuant to California Health and Safety Code Sections 39002, 39616, 40000, 40001, 40440, 40440.1, and 40702.

Clarity

The proposed amended rules are written or displayed so that its meaning can be easily understood by the persons directly affected by them.

Consistency

The proposed amended rules are in harmony with and not in conflict with or contradictory to, existing statutes, court decisions or state or federal regulations.

Non-Duplication

The proposed amended rules will not impose the same requirements as any existing state or federal regulations. The amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, AQMD.

Reference

By adopting the proposed amended rules, the AQMD Governing Board will be implementing, interpreting and making specific the provisions of the California Health and Safety Code Sections 39002, 39616, 40001, 40440 (a), 40440.1, 40702, and 40725 through 40728.5; and Title 42 U. S. C. Sections 7410 and 7511a.

APPENDIX A

Proposed Amended Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx)
Proposed Amended Rule 2007 – Trading Requirements
Proposed Amended Rule 2009 – Compliance Plans for Power Producing Facilities
Proposed Amended Rule 2010 – Administrative Remedies and Sanctions
Proposed Amended Rule 2015 – Backstop Provisions
Proposed Amended Rule 2011 - Proposed Amended Rule 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions (Protocol)
Proposed Amended Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions (Protocol)