



South Coast
Air Quality Management District

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BOARD MEETING DATE: March 5, 2010

AGENDA NO.

REPORT: Annual RECLAIM Audit Report for 2008 Compliance Year

SYNOPSIS: The annual report on the NO_x and SO_x RECLAIM program is prepared in accordance with Rule 2015 - Backstop Provisions. The report assesses emission reductions, availability of RECLAIM Trading Credits (RTCs) and their average annual prices, job impacts, compliance issues, and other measures of performance for the fifteenth year of this program. In addition, recent trends in trading future year RTCs are analyzed and presented in this report. Further, a list of facilities that did not reconcile their emissions from the commencement of the RECLAIM program through the end of Compliance Year 2008 is included with the report.

COMMITTEE: Stationary Source, February 19, 2010, Recommended for Board Consideration of Approval

RECOMMENDED ACTION:
Approve the attached annual report.

Barry R. Wallerstein, D.Env.
Executive Officer

MN:DL

Background

The Board adopted the RECLAIM program on October 15, 1993, to provide a more flexible compliance program than command and control for subject facilities, which represent AQMD's largest emitters of NO_x and SO_x pollutants. Although RECLAIM was developed as an alternative to command and control, it was designed to meet all state and federal clean air program requirements and a variety of performance criteria in order to ensure public health protection, air quality improvement, effective enforcement, same or lower implementation costs, and minimal job impacts.

RECLAIM represents a significant departure from traditional command-and-control regulations. Therefore, the RECLAIM regulation's Rule 2015 - Backstop Provisions, requires AQMD to conduct annual program audits to assess various aspects of the

program to verify that program objectives are being met. In previous annual audit reports, aggregate NOx and SOx emissions were based on both audited emissions and, when audited emissions were not yet available, reported emissions as found in the Annual Permit Emissions Program report (APEP) or Quarterly Certification of Emissions Reports (QCERs) when the APEP was not available. This year's report reflects AQMD staff's effort to update all years' aggregate NOx and SOx emissions with audited emission values. AQMD staff has completed audits of facility records, updated emissions for all previous compliance years, and conducted a complete audit for Compliance Year 2008. Based on audited emissions, there is no change in the previously reported results indicating that RECLAIM met its emissions goals for all years except that NOx emissions still exceeded in Compliance Year 2000 primarily due to the energy crisis. NOx emissions in Compliance Year 2001 are no longer in excess of allocations as was reported in previous annual reports (*i.e.*, NOx emissions goals were met for Compliance Year 2001). The reduction in emissions in Compliance Year 2001 was mainly due to the exclusion of emissions from military technical support equipment from reported emissions pursuant to Health and Safety Code Section 41754(a)(3) and not a direct reflection of the results of full audits of facility records.

Audit results for Compliance Year 2008 show that both aggregate NOx and SOx emissions achieved programmatic compliance with RECLAIM's targeted emission levels (aggregate allocations). Aggregate NOx emissions were 22 percent less than aggregate NOx allocations and aggregate SOx emissions were 21 percent less than aggregate SOx allocations during Compliance Year 2008.

At the September 7, 2007 AQMD Governing Board meeting, the Board approved the "Evaluation and Review of the RECLAIM Program and Assessment of RTC Price Reporting" Report and a new methodology for reporting RTC trade prices and determining average RTC prices. This methodology evaluates price data for trades involving individual discrete years and trades involving blocks of RTCs extending into perpetuity (infinite-year blocks or IYBs), separately. Trade data in the attached Annual RECLAIM Audit Report for Compliance Year 2008 are based on this methodology.

Audit Findings

The audit of the RECLAIM Program during Compliance Year 2008 and trades of RECLAIM Trading Credits (RTCs) during Calendar Year 2009 show that:

- Aggregate NOx and SOx emissions from RECLAIM facilities were below aggregate allocations.
- The RECLAIM universe consisted of 292 facilities as of June 30, 2008. Six RECLAIM facilities shut down between July 1, 2008 and June 30, 2009. Thus, 286 facilities were in the RECLAIM universe on June 30, 2009. One of the shutdown facilities consolidated its operations with a facility outside of AQMD, and another had sold a portion of its equipment to an existing RECLAIM facility before deciding to

shut down and consolidate operations elsewhere in the AQMD. A third facility cited excess capacity and the remaining three facilities cited declining demand for their products as the reasons for shutting down. All the shutdown facilities were NOx-only facilities.

- The vast majority of RECLAIM facilities complied with their Allocations during the 2008 compliance year (95 percent of NOx facilities and 97 percent of SOx facilities). Sixteen facilities exceeded their NOx allocations and one facility exceeded its SOx allocation during the 2008 compliance year. These exceedances did not impact the aggregate NOx and SOx emissions, which stayed below the allocations, respectively.
- Incorporation of the audit results for previous compliance years (back to 1994), resulted in compliance status changes to some of the individual facilities, but did not change the previously reported results relative to overall aggregate NOx and SOx programmatic compliance, as noted above.
- RECLAIM had minimal impact on employment during the 2008 compliance year, which is consistent with previous years. RECLAIM facilities reported an overall net loss of 315 jobs, representing 0.29 percent of their total employment. Two RECLAIM facilities reported a combined total of 139 jobs lost due to RECLAIM, whereas two other facilities reported a total of three jobs gained due to RECLAIM. The job losses and job gains information is strictly based on the RECLAIM facilities reported information and AQMD has no way to verify whether or not the reported job impacts from the RECLAIM facilities are real or perceived. However, AQMD staff has reviewed information available to AQMD for one facility which reported a major portion of the jobs lost (136) due to RECLAIM. The facility has been in the RECLAIM program for the last 15 years, has had relatively steady emissions and adequate RTC allocations to cover its emissions in the last several years, and was not a structural buyer. Based on this, it can be concluded that the facility would most likely have had enough RTCs to cover its future emissions. Therefore, the AQMD could not identify any specific reason why the RECLAIM program would have caused the job losses reported by this facility.
- The RTC trading market slowed down during calendar year 2009 and experienced the lowest trading volume (excluding swaps) since the inception of the RECLAIM program in 1994. A total of \$943 million in RTCs has been traded since the adoption of RECLAIM, of which \$22.6 million occurred in calendar year 2009 (compared to \$58 million in calendar year 2008), excluding swaps. During calendar year 2009, average annual prices for discrete-year NOx RTCs ranged from \$809 per ton for Compliance Year 2008, to \$4,780 per ton for Compliance Year 2010. The average annual prices for discrete-year SOx RTCs ranged from \$653 per ton for Compliance Year 2008, to \$1,488 per ton for Compliance Year 2009. The average annual prices of discrete-year NOx and SOx RTCs traded in calendar year 2009 were below the program review threshold of \$15,000 per ton established in Rule 2015(b)(6), as well

as below the \$37,218 per ton for NOx and \$26,797 per ton for SOx RTC program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f). For calendar year 2009, the average annual price for IYB NOx RTCs was \$124,576 per ton, and the average annual price for IYB SOx RTCs was \$36,550 per ton (compared to \$202,402 and \$22,479 per ton for IYB NOx and SOx RTCs in calendar year 2008, respectively). Average annual prices for IYB NOx and SOx RTCs during calendar year 2009 were below the predetermined program review price thresholds of \$558,267 per ton of IYB NOx RTCs and \$401,952 per ton of IYB SOx RTCs established by the Governing Board pursuant to Health and Safety Code Section 39616(f). The average annual prices of RTCs traded during calendar years 2008 and 2009, based on the new price reporting methodology, are summarized in Tables 1 and 2 below.

Table 1 – Average Prices for Discrete-Years’ RTCs during Calendar Years 2008 and 2009

2008	2009
<ul style="list-style-type: none"> • \$1,047 per ton for Compliance Year 2007 NOx RTCs • \$2,800 per ton for Compliance Year 2008 NOx RTCs • \$10,984 per ton for Compliance Year 2010 NOx RTCs • \$877 per ton for Compliance Year 2007 SOx RTCs • \$1,423 per ton for Compliance Year 2008 SOx RTCs • \$1,380 per ton for Compliance Year 2010 SOx RTCs 	<ul style="list-style-type: none"> • \$809 per ton for Compliance Year 2008 NOx RTCs • \$1,986 per ton for Compliance Year 2009 NOx RTCs • \$4,780 per ton for Compliance Year 2010 NOx RTCs • \$653 per ton for Compliance Year 2008 SOx RTCs • \$1,488 per ton for Compliance Year 2009 SOx RTCs • No Compliance Year 2010 SOx RTCs traded

Table 2 – Average Prices for IYB RTCs during Calendar Years 2008 and 2009

2008	2009
<ul style="list-style-type: none"> • \$202,402 per ton for NOx IYB RTCs • \$22,479 per ton for SOx IYB RTCs 	<ul style="list-style-type: none"> • \$124,576 per ton for NOx IYB RTCs • \$36,550 per ton for SOx IYB RTCs

- The role of investors in the RTC market remains significant. Based on both trading values and number of trades with price, investor-involved trades constituted the majority of the trades recorded in calendar year 2009, particularly with respect to discrete trades. Investor RTC holdings increased from 4.8 percent to 5.5 percent of

total IYB NOx RTCs, and decreased from 7.9 percent to 5.5 percent of total IYB SOx RTCs over the course of calendar year 2009.

Attachment

Annual RECLAIM Audit Report for the 2008 Compliance Year

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Annual RECLAIM Audit Report for 2008 Compliance Year

March 5, 2010

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Speaker of the Assembly
Appointee

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EXECUTIVE OFFICER

Barry R. Wallerstein, D.Env.

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LIST OF ABBREVIATIONS

ACEMS	Alternative Continuous Emissions Monitoring System
APEP	Annual Permit Emissions Program
AQMD	South Coast Air Quality Management District
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BARCT	Best Available Retrofit Control Technology
CARB	California Air Resources Board
CAA	Clean Air Act
CCAA	California Clean Air Act
CEMS	Continuous Emissions Monitoring System
EDR	Electronic Data Reporting
ERC	Emission Reduction Credit
FCCU	Fluid Catalytic Cracking Unit
IYB RTC	Infinite-Year Block RECLAIM Trading Credit
LAP	Laboratory Approval Program
MDP	Missing Data Procedures
MRR	Monitoring, Reporting and Recordkeeping
MSERC	Mobile Source Emission Reduction Credit
NNI	No Net Increase
NOx	Oxides of Nitrogen
NSR	New Source Review
QCER	Quarterly Certification of Emissions Report
RACT	Reasonably Available Control Technology
RATA	Relative Accuracy Test Audit
RECLAIM	REgional CLean Air Incentives Market
RTC	RECLAIM Trading Credit
RTU	Remote Terminal Unit
SOx	Oxides of Sulfur
SWG	Standing Working Group
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
WATERS	Web Access To Electronic Reporting System

EXECUTIVE SUMMARY

Introduction

The South Coast Air Quality Management District (AQMD) Governing Board adopted the REgional CLean Air Incentives Market (RECLAIM) program on October 15, 1993. The RECLAIM program represents a significant departure from traditional command-and-control regulations. RECLAIM's objective is to provide facilities with added flexibility in meeting emissions reduction requirements while lowering the cost of compliance. This is accomplished by establishing facility-specific emissions reduction targets without being prescriptive regarding the method of attaining compliance with the targets. Each facility may determine for itself the most cost-effective approach to reducing emissions, including purchasing emission credits from facilities that reduce emissions below their target levels.

Rule 2015 - Backstop Provisions includes provisions for annual program audits focusing on specific topics, as well as a one-time comprehensive audit of the program's first three years to ensure that RECLAIM is meeting all state and federal requirements and other performance criteria and to provide backstop measures if the specific criteria is not met. This document constitutes the Rule 2015 annual audit report for the 2008 compliance year (January 1 through December 31, 2008 for Cycle 1 and July 1, 2008 through June 30, 2009 for Cycle 2).

Chapter 1: RECLAIM Universe

When RECLAIM was adopted in October 1993, a total of 394 facilities were identified as the initial "universe" of sources subject to the requirements of RECLAIM. From program adoption through June 30, 2008, the overall changes in RECLAIM participants were 116 facilities included into the program, 70 excluded from the program, and 148 facilities ceased operation. Thus, the RECLAIM universe consisted of 292 active facilities on July 1, 2008. From July 1, 2008 through June 30, 2009, no facility was included into the RECLAIM universe, no facility was excluded, and six facilities shut down and are no longer in the active RECLAIM universe. These changes resulted in a net decrease of six facilities in the universe, bringing the total number of facilities to 286 by June 30, 2009. All these recent changes occurred within the oxides of nitrogen (NOx) universe and there were no changes to the facilities in the oxides of sulfur (SOx) universe during Compliance Year 2008.

Chapter 2: RTC Allocations and Trading

On January 7, 2005, the Governing Board adopted amendments to RECLAIM that resulted in an overall 22.5% reduction in NOx Allocations between 2007 through 2011. For Compliance Year 2008, the cumulative NOx RECLAIM Trading Credit (RTC) reduction was 14.4% since 2007. Additionally, the Compliance Year 2008 RTC supply decreased by 15.1 tons and 19.5 tons for NOx and SOx, respectively, due to allocation adjustments for clean fuel

production pursuant to Rule 2002(c)(12). Therefore, NOx and SOx RTC supplies for Compliance Year 2008 were 10,691 and 4,280 tons, respectively.

The trading market slowed down during calendar year 2009 compared to historical activities, especially those in calendar year 2008. There were 435 registered RTC transactions, and a total value of over \$22.6 million, excluding swaps (compared to 573 registered transactions for a total RTC value of \$58 million in calendar year 2008). Since the inception of the RECLAIM program in 1994, a total value of over \$943 million has been traded in the RTC trading market, excluding swaps.

The average annual prices of discrete-year NOx RTCs traded during 2009 ranged from \$809 per ton for Compliance Year 2008 RTCs, to \$4,780 per ton for Compliance Year 2010 RTCs. The average annual prices for discrete-year SOx RTCs traded during the same period ranged from \$653 per ton for Compliance Year 2008 RTCs, to \$1,488 per ton for RTCs for Compliance Year 2009. In calendar year 2009, the average annual prices for discrete NOx and SOx RTCs for all compliance years remained well below the \$15,000 per ton threshold to evaluate and review the compliance aspects of the program set forth by AQMD Rule 2015, as well as the \$37,218 per ton of NOx and \$26,797 per ton of SOx discrete RTCs, pre-determined program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f).

The average annual price for infinite-year block (IYB) NOx RTCs traded in 2009 was \$124,576 per ton, and the average annual price for IYB SOx RTCs traded in 2009 was \$36,550 per ton (compared to \$202,402 and \$22,479 for IYB NOx and SOx RTCs traded in calendar year 2008, respectively). In calendar year 2009, average annual IYB RTC prices did not exceed the \$558,267 per ton of IYB NOx RTCs or the \$401,952 per ton of IYB SOx RTCs pre-determined program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f).

The role of investors in the RTC market remains significant. Based on both trading values and the number of trades with price, investors were involved in a significant portion of the trades recorded in calendar year 2009 (56% and 100% with respect to value and 68% and 100% with respect to volume for discrete NOx and SOx trades, respectively; 57% and 100% with respect to value and 52% and 100% with respect to volume for IYB NOx and SOx trades, respectively). Investors' holdings of IYB NOx RTCs increased to 5.5% at the end of calendar year 2009 from 4.8% at the end of calendar year 2008, while their holdings of IYB SOx RTCs decreased to 5.5% at the end of calendar year 2009 from 7.9% at the end of calendar year 2008.

Chapter 3: Emission Reductions

At the time of writing each of the previous annual RECLAIM audit reports, aggregate NOx and SOx emissions were based on both audited emissions as well as emissions reported in the Annual Permit Emissions Program (APEP) report and/or Quarterly Certification of Emissions Reports (QCERs) for some cases when audited emissions were not yet available. In the Compliance Year 2007 Annual RECLAIM Audit Report, staff committed to updating all previous years' aggregate NOx and SOx emissions with audited emission values in this annual report. Based on the results of emission audits, there is no change in the

previously reported results indicating that RECLAIM continued to meet its emission goals, except Compliance Year 2000 aggregate NOx emissions still exceeded overall NOx allocations for that compliance year due to the effects of the California Energy Crisis (Compliance Year 2001 aggregate NOx emissions were previously identified to be in excess of overall NOx allocations but is no longer the case, mainly due to the exclusion of emissions from military technical support equipment pursuant to state law, Health and Safety Code §41754[a][3].)

For Compliance Year 2008, audited NOx and SOx emissions from RECLAIM facilities continued to be below allocations for this compliance year. Total aggregate NOx emissions were below total allocations by 22% and total aggregate SOx emissions were below total allocations by 21%. Therefore, based on audited emissions, it can be concluded that RECLAIM has achieved its targeted emission reductions. Finally, no emissions associated with breakdowns were excluded from reconciliation with facility allocations in Compliance Year 2008. Accordingly, no mitigation is necessary to offset excluded emissions due to approved Breakdown Emission Reports.

Chapter 4: New Source Review Activity

The annual program audit assesses New Source Review (NSR) activity from RECLAIM facilities in order to ensure that RECLAIM is complying with federal NSR requirements and state no net increase (NNI) in emissions requirements, while providing flexibility to facilities in managing their operations and allowing new sources into the program. In Compliance Year 2008, no new facility joined either or both the RECLAIM NOx and/or the RECLAIM SOx markets, fifteen NOx RECLAIM facilities had NSR NOx emission increases due to expansion or modification, and no existing SOx RECLAIM facility had NSR SOx emission increases due to expansion or modification. The consistent trend of surplus NOx and SOx RTCs over emissions for the past five years has allowed for expansion and modification by existing facilities. However, it has become apparent that due to accumulating RTC hold requirements, this may no longer be the case. As a result, potential changes to Rule 2005 are being considered to facilitate expansion and modification of operations by existing facilities that are already in RECLAIM.

RECLAIM is required to comply with federal NSR requirements at a 1.2-to-1 offset ratio for NOx emission increases and at least at a 1-to-1 offset ratio for SOx emission increases on a programmatic basis. In Compliance Year 2008, RECLAIM provided an offset ratio of 300-to-1 for NOx, demonstrating federal equivalency. Demonstrating an offset ratio for SOx is not required for this compliance year since there were no NSR SOx emission increases. Compliance with the federally-required offset ratio also demonstrates compliance with the state NNI requirements for new or modified sources. In addition, RECLAIM requires application of Best Available Control Technology (BACT) for all new or modified sources with emission increases.

Chapter 5: Compliance

There were 292 NOx and 32 SOx active facilities in the RECLAIM program at the start of the 2008 compliance year. During the 2008 compliance year, six facilities in the NOx universe ceased operations and shutdown. There were no changes

in the SOx universe. Of these 292 active NOx RECLAIM facilities during the 2008 compliance year, 276 facilities (95%) complied with their NOx allocations, and all but one of the 32 SOx facilities (97%) complied with their SOx allocations. The 16 NOx facilities that exceeded their NOx allocations had aggregate NOx emissions in excess of their combined NOx allocations by a total of 16.1 tons, whereas, the one SOx facility exceeded its SOx allocation by 2.8 tons. These amounts are relatively small compared to the overall allocations for the compliance year (0.15% of NOx and 0.07% of SOx allocations). The overall RECLAIM NOx and SOx emission goals were met for Compliance Year 2008 (*i.e.*, aggregate emissions were below aggregate allocations).

Chapter 6: Job Impacts

According to the Compliance Year 2008 employment survey, the RECLAIM program had no impact on jobs at more than 98.6 % of the facilities. RECLAIM facilities reported a net loss of 315 jobs, representing 0.29% of their total employment. Most of these losses were attributed to factors other than RECLAIM. Six RECLAIM facilities were listed as shutdown during Compliance Year 2008. None of these facilities reported on their Annual Permit Emissions Program (APEP) report that RECLAIM was a contributing factor in their decision to close. Two facilities (0.69% of the RECLAIM universe) reported a combined loss of 139 jobs due to RECLAIM, whereas two other facilities (0.69% of the RECLAIM universe) reported a total of three jobs gained. Job losses and job gains are strictly based on RECLAIM facilities' reported information. However, AQMD staff has reviewed information available to AQMD for one facility which reported a major portion of the jobs lost (136) due to RECLAIM. The facility has been in the RECLAIM program for the last 15 years, has had relatively steady emissions and adequate RTC allocations to cover its emissions in the last several years, and was not a structural buyer. Based on this, it can be concluded that the facility would most likely have had enough RTCs to cover its future emissions. Therefore, the AQMD could not identify any specific reason why the RECLAIM program would have caused the job losses reported by this facility.

Chapter 7: Air Quality and Public Health Impacts

Audited RECLAIM emissions have been in an overall downward trend since the program's inception. Compared to the previous compliance year, NOx and SOx emissions in Compliance Year 2008 continued their downward trend (reduced by five percent and ten percent when compared to Compliance Year 2007, respectively). Quarterly calendar year 2008 NOx emissions ranged from approximately four percent below to four percent above the mean NOx emissions for the year. Quarterly calendar year 2008 SOx emissions ranged from approximately nine percent below to eleven percent above the year's mean SOx emissions. There was no significant shift in seasonal emissions from the winter season to the summer season. Furthermore, based upon Compliance Year 2008 analysis of the geographical distribution of emissions on a quarterly basis, there is no distinct shift in the geographical distribution of emissions.

The California Clean Air Act (CCAA) required a 50% reduction in population exposure to ozone, relative to a baseline averaged over three years (1986 through 1988), by December 31, 2000. Analysis of per capita exposure (the

length of time each person is exposed) to ozone in 1998 and 2000 shows that the Basin achieved the December 2000 target for ozone well before the deadline. In fact, Los Angeles County, Orange County, and the South Coast Air Basin overall achieved compliance with the December 2000 target prior to 1994, and Riverside and San Bernardino Counties achieved compliance in 1996. In calendar year 2009, the per capita exposure to ozone continued to be well below the target set for December 2000.

Air toxic health risk is primarily caused by emissions of certain volatile organic compounds (VOCs) and metals, rather than NO_x or SO_x emissions; RECLAIM facilities are subject to the same air toxic, VOC, and solid and condensable particulate matter regulations as other sources in the Basin. Therefore, it can be concluded that the RECLAIM program creates no increased toxic impact beyond what would have occurred with the rules and control measures RECLAIM subsumed.

INTRODUCTION

The South Coast Air Quality Management District's (AQMD's) REgional CLean Air Incentives Market (RECLAIM) program was adopted in October 1993 and replaces certain command-and-control rules with a new market incentives program for facilities that meet the inclusion criteria. The goal of RECLAIM is to provide facilities with added flexibility in meeting emissions reduction requirements and to lower the cost of compliance. The RECLAIM program was designed to meet all state and federal clean air program requirements, as well as other performance criteria, such as equivalent air quality improvement, equivalent enforcement, lower implementation costs, lower job impacts, and no adverse public health impacts.

Since RECLAIM represents a significant change from traditional command-and-control regulations, RECLAIM rules include provisions for program audits in order to verify that the RECLAIM objectives are being met. The rules provide for a comprehensive audit of the first three years of program implementation and annual audits. The audit results are used to help determine whether any program modifications are appropriate.

This report presents the annual audit and progress report of RECLAIM's fifteenth compliance year (January 1 through December 31, 2008 for Cycle 1 and July 1, 2008 through June 30, 2009 for Cycle 2), also known as the 2008 compliance year. As required by Rule 2015(b)(1) – Annual Audits, this audit assesses:

- Emission reductions;
- Per capita exposure to air pollution;
- Facilities permanently ceasing operation of all sources;
- Job impacts;
- Average annual price of each type of RECLAIM Trading Credit (RTC);
- Availability of RTCs;
- Toxic risk reductions;
- New Source Review permitting activity;
- Compliance issues, including a list of facilities that were unable to reconcile by securing RTC's to cover emissions;
- Emission trends/seasonal fluctuations;
- Emission control requirement impacts on stationary sources in the program compared to other stationary sources identified in the Air Quality Management Plan (AQMP); and
- Emissions associated with equipment breakdowns.

The annual audit is organized into the following chapters:

1. RECLAIM Universe

This chapter discusses changes in the universe of RECLAIM sources that occurred from July 1, 2008 through June 30, 2009.

2. **RTC Allocations and Trading**
This chapter summarizes changes in emissions allocations in the RECLAIM universe, RTC supply and RTC trading activity, including average annual prices, availability of RTCs, and market participants.
3. **Emission Reductions**
This chapter assesses emissions trends and reductions for RECLAIM sources, emissions associated with equipment breakdowns, and emissions control requirement impacts on RECLAIM sources compared to other stationary sources. It also discusses the latest amendments to the RECLAIM program.
4. **New Source Review Activity**
This chapter summarizes New Source Review activity at RECLAIM facilities.
5. **Compliance**
This chapter discusses compliance activities and the compliance status of RECLAIM facilities. It also evaluates the effectiveness of AQMD's compliance program, as well as the monitoring, reporting, and recordkeeping protocols for oxides of nitrogen (NOx) and oxides of sulfur (SOx).
6. **Job Impacts**
This chapter addresses job impacts and facilities permanently ceasing operation of all sources.
7. **Air Quality and Public Health Impacts**
This chapter discusses air quality trends in the South Coast Air Basin, seasonal and geographic emission trends for RECLAIM sources, per capita exposure to air pollution, and the toxic impacts of RECLAIM sources.

CHAPTER 1 RECLAIM UNIVERSE

Summary

When RECLAIM was adopted in October 1993, a total of 394 facilities were identified as the initial “universe” of sources subject to the requirements of RECLAIM. From program adoption through June 30, 2008, the overall changes in RECLAIM participants were 116 facilities included into the program, 70 excluded from the program, and 148 facilities ceased operation. Thus, the RECLAIM universe consisted of 292 active facilities on July 1, 2008. From July 1, 2008 through June 30, 2009, no facility was included into the RECLAIM universe, no facility was excluded, and six facilities shut down and are no longer in the active RECLAIM universe. These changes resulted in a net decrease of six facilities in the universe, bringing the total number of facilities to 286 by June 30, 2009. All these recent changes occurred within the oxides of nitrogen (NOx) universe and there were no changes to the facilities in the oxides of sulfur (SOx) universe during Compliance Year 2008.

Background

The RECLAIM program replaced the traditional “command-and-control” rules for a defined list of facilities participating in the program (the RECLAIM “universe”). The criteria for inclusion in the RECLAIM program are specified in Rule 2001 – Applicability. Facilities are generally subject to RECLAIM if they have NOx or SOx emissions greater than or equal to four tons in 1990 or any subsequent year. However, certain facilities are categorically excluded from RECLAIM. The categorically excluded facilities include dry cleaners; restaurants; police and fire fighting facilities; construction and operation of landfill gas control, processing or landfill gas energy facilities; public transit facilities, potable water delivery operations; and facilities, other than electric generating facilities established on or after January 1, 2001, located in the Riverside County portions of the Mojave Desert Air Basin and the Salton Sea Air Basin. Furthermore, other categories of facilities are not automatically included but do have the option to enter the program at their discretion. These categories include electric utilities (exemption only for the SOx program); equipment rental facilities; schools or universities; portions of facility research operations; ski resorts; prisons; hospitals; publicly-owned municipal waste-to-energy facilities; publically-owned sewage treatment facilities operating with an approved regional growth plan; electrical power generating systems owned and operated by the Cities of Burbank, Glendale, or Pasadena or their successors; facilities on San Clemente Island; agricultural facilities; and electric generating facilities that are new on or after January 1, 2001 and located in the Riverside County portions of the Mojave Desert Air Basin and the Salton Sea Air Basin. An initial universe of 394 RECLAIM facilities was developed using these criteria based on 1990, 1991 and 1992 facility emissions data.

A facility that is not categorically excluded from the program may voluntarily join RECLAIM, regardless of its emission level. Additionally, a facility may be required to enter the RECLAIM universe if:

- It increases its NO_x and/or SO_x emissions above the four-ton per year threshold; or
- It ceases to belong to an exempt category and its reported NO_x and SO_x emissions are greater than or equal to four tons per year; or
- It is determined by AQMD staff to meet the applicability requirements of RECLAIM, but was initially misclassified as not subject to RECLAIM.

RECLAIM facilities including those in the initial RECLAIM universe as well as existing facilities that were included in the program (either voluntarily or based on emissions above four tons per year), were issued at the time of joining RECLAIM an annually declining allocation of emission credits (“RECLAIM Trading Credits” or “RTCs”) that constitutes an annual emissions budget. RTCs may be bought or sold as the facilities deem appropriate (see Chapter 2 – RTC Allocations and Trading).

RECLAIM facilities that permanently go out of business after January 1, 1994 (Cycle 1) or after July 1, 1994 (Cycle 2) are removed from the active emitting RECLAIM universe, but may retain their RTCs and participate in the trading market.

Universe Changes

The RECLAIM rules include several mechanisms to exclude facilities originally included in the program and to add new facilities. The overall changes to the RECLAIM universe from the date of adoption (October 15, 1993) through the end of Compliance Year 2007 (June 30, 2008) were: the inclusion of 116 facilities (86 facilities that were new or new to RECLAIM and 30 facilities created by partial change of operator of existing RECLAIM facilities), the exclusion of 70 facilities, and the shutdown of 148 facilities. Thus, the net change in the RECLAIM universe during the first 14 compliance years was a decrease from 394 to 292 facilities¹. During Compliance Year 2008 (ending June 30, 2009), no facility was included or excluded, but six facilities shut down. These changes brought the total number of facilities in the RECLAIM universe to 286 facilities. The list of facilities in the RECLAIM universe as of June 30, 2009 is provided in Appendix A.

Facility Inclusions and Exclusions

Between July 1, 2008 and June 30, 2009, no facility was included or excluded from the RECLAIM universe during Compliance Year 2008.

¹ The RECLAIM universe was reported to be 291 in the Compliance Year 2007 Annual RECLAIM Audit Report because one facility incorrectly reported on their Annual Permit Emissions Program (APEP) report as shutdown; however, it kept its permits active.

Facilities Permanently Ceasing Operations

Six RECLAIM facilities permanently ceased operations between July 1, 2008 and June 30, 2009. One of these facilities consolidated its operations with a facility outside of AQMD. Another shutdown facility had sold a portion of its equipment to an existing RECLAIM facility before deciding to shut down and consolidate operations elsewhere in the AQMD. A third facility cited excess capacity as the reason for shutting down. The remaining three shutdown facilities cited declining demand for their products. All the shutdown facilities were NOx-only facilities. Appendix C lists the shutdown facilities and brief descriptions of the reported reasons for their closures.

These shutdowns resulted in a net decrease of six facilities in the RECLAIM universe. Table 1-1 summarizes changes in the RECLAIM universe between the start of the program and June 30, 2009. Overall changes to the RECLAIM universe that occurred from July 1, 2008 through June 30, 2009 are illustrated in Figure 1-1.

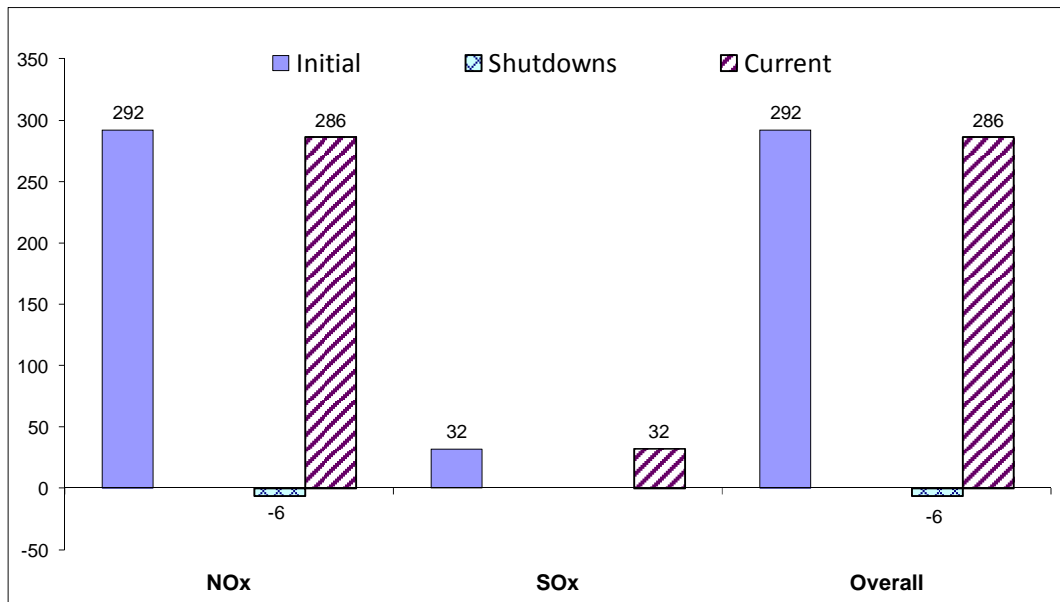
**Table 1-1
RECLAIM Universe Changes**

	NOx Facilities	SOx Facilities	Total* Facilities
Universe – October 15, 1993 (Start of Program)	392	41	394
Inclusions—October 15, 1993 through June 30, 2008	116	10	116
Exclusions—October 15, 1993 through June 30, 2008	-69	-4	-70
Shutdowns—October 15, 1993 through June 30, 2008	-147**	-15	-148
Universe – June 30, 2008	292	32	292
Inclusions—July 1, 2008 through June 30, 2009	0	0	0
Exclusions—July 1, 2008 through June 30, 2009	0	0	0
Shutdowns—July 1, 2008 through June 30, 2009	-6	0	-6
Universe – June 30, 2009	286	32	286

* Total facilities is not the sum of NOx and SOx facilities due to the overlap of some facilities being in both the NOx and SOx universes.

** One facility incorrectly reported on their Annual Permit Emissions Program (APEP) report as shutdown during Compliance Year 2007. It was listed as shutdown in Appendix C and removed from the universe in Appendix A of Compliance Year 2007 Annual RECLAIM Audit Report. However, it kept its permits active and, therefore, it is re-listed in Appendix A of this report.

Figure 1-1
Universe Changes from July 1, 2008 through June 30, 2009



CHAPTER 2

RTC ALLOCATIONS AND TRADING

Summary

On January 7, 2005, the Governing Board adopted amendments to RECLAIM that resulted in an overall 22.5% reduction in NOx Allocations between 2007 through 2011. For Compliance Year 2008, the cumulative NOx RECLAIM Trading Credit (RTC) reduction was 14.4% since 2007. Additionally, the Compliance Year 2008 RTC supply decreased by 15.1 tons and 19.5 tons for NOx and SOx, respectively, due to allocation adjustments for clean fuel production pursuant to Rule 2002(c)(12). Therefore, NOx and SOx RTC supplies for Compliance Year 2008 were 10,691 and 4,280 tons, respectively.

The trading market slowed down during calendar year 2009 compared to historical activities, especially those in calendar year 2008. There were 435 registered RTC transactions, and a total value of over \$22.6 million, excluding swaps (compared to 573 registered transactions for a total RTC value of \$58 million in calendar year 2008). Since the inception of the RECLAIM program in 1994, a total value of over \$943 million has been traded in the RTC trading market, excluding swaps.

The average annual prices of discrete-year NOx RTCs traded during 2009 ranged from \$809 per ton for Compliance Year 2008 RTCs, to \$4,780 per ton for Compliance Year 2010 RTCs. The average annual prices for discrete-year SOx RTCs traded during the same period ranged from \$653 per ton for Compliance Year 2008 RTCs, to \$1,488 per ton for RTCs for Compliance Year 2009. In calendar year 2009, the average annual prices for discrete NOx and SOx RTCs for all compliance years remained well below the \$15,000 per ton threshold to evaluate and review the compliance aspects of the program set forth by AQMD Rule 2015, as well as the \$37,218 per ton of NOx and \$26,797 per ton of SOx discrete RTCs, pre-determined program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f).

The average annual price for infinite-year block (IYB) NOx RTCs traded in 2009 was \$124,576 per ton, and the average annual price for IYB SOx RTCs traded in 2009 was \$36,550 per ton (compared to \$202,402 and \$22,479 for IYB NOx and SOx RTCs traded in calendar year 2008, respectively). In calendar year 2009, average annual IYB RTC prices did not exceed the \$558,267 per ton of IYB NOx RTCs or the \$401,952 per ton of IYB SOx RTCs pre-determined program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f).

The role of investors in the RTC market remains significant. Based on both trading values and the number of trades with price, investors were involved in a significant portion of the trades recorded in calendar year 2009 (56% and 100% with respect to value and 68% and 100% with respect to volume for discrete NOx and SOx trades, respectively; 57% and 100% with respect to value and 52% and 100% with respect to volume for IYB NOx and SOx trades, respectively). Investors' holdings of IYB NOx RTCs increased to 5.5% at the end of calendar

year 2009 from 4.8% at the end of calendar year 2008, while their holdings of IYB SOx RTCs decreased to 5.5% at the end of calendar year 2009 from 7.9% at the end of calendar year 2008.

Background

The AQMD issues each facility emissions allocations for each compliance year, according to the methodology specified in Rule 2002, based on the facility's operational history. These allocations are issued as RTCs, denominated in pounds of NOx or SOx within a specific year. Each RTC may only be used for emissions occurring within the term of that RTC. The RECLAIM program has two staggered compliance cycles—Cycle 1 with a compliance period of January 1 through December 31 of each year, and Cycle 2 with a compliance period of July 1 of each year through June 30 of the following year. Each RECLAIM facility is assigned to either Cycle 1 or Cycle 2 and the RTCs it is issued (if any) have corresponding periods of validity.

The issuance of allocations for future years provides RECLAIM facilities guidance regarding their future emission reduction requirements. Facilities can plan their compliance strategies by reducing actual emissions or securing needed RTCs through trades (or a combination of the two), based on their operational needs.

RECLAIM facilities may acquire through trading RTCs issued for either cycle and apply them to emissions, provided that the RTCs are used for emissions occurring within their period of validity and the trades are made during the appropriate time period. RECLAIM facilities have 30 days at the end of each of the first three quarters to reconcile by securing RTCs to cover their quarterly and year-to-date emissions, and 60 days after the end of each compliance year to reconcile their total annual emissions by securing adequate RTCs.

In an effort to achieve additional NOx reductions pursuant to 2003 AQMP Control Measure #2003 CMB-10 (“Additional NOx Reductions for RECLAIM (NOx)”) and to comply with requirements for demonstrating Best Available Retrofit Control Technology (BARCT) equivalency under state law, AQMD began the RECLAIM rule amendment process in early 2004. The process included a detailed analysis of control technologies that qualified as BARCT for NOx, and lengthy discussions with stakeholders—including regulated industry, environmental groups, the California Air Resources Board (CARB), and the United States Environmental Protection Agency (USEPA). On January 7, 2005, the Governing Board adopted several changes to the RECLAIM program. Among other amendments, the changes resulted in cumulative reductions of 7.7 tons NOx per day, a more than 20% reduction, from all RECLAIM facilities when fully implemented in Compliance Year 2011 (the reductions are being phased in from 2007 through 2011: 4.0 tons per day in 2007 and an additional 0.925 tons per day in each of the following four years). By adopting these rule amendments, AQMD showed that, relative to the subsumed control measures, RECLAIM is achieving “equivalent or greater emission reductions at equivalent or less cost” as is required by Health and Safety Code §39616(c)(1).

Although other chapters in this report present and discuss Compliance Year 2008 data, RTC trading and price data discussed in this chapter are for calendar year 2009. (Other portions of this chapter address Compliance Year 2008 data.)

RTC Allocations and Supply

The methodology for determining RTC allocations is established by Rule 2002. According to the rule, allocations may change when the universe of RECLAIM facilities changes, emissions associated with the production of re-formulated gasoline increase or decrease, or reported historical activity levels are updated. In addition to the allocation, RTCs can be generated by conversion of emissions reductions from mobile and area sources. The total RTC supply in RECLAIM is made up of all RECLAIM facilities' allocations, conversions of Emission Reduction Credits (ERCs) owned by RECLAIM and non-RECLAIM facilities (the window of opportunity to convert ERCs to RTCs other than during the process of a non-RECLAIM facility entering the program closed June 30, 1994), emissions associated with the production of re-formulated gasoline, and conversion of emission reduction credits from mobile sources and area sources. Changes in the RTC supply during Compliance Year 2008 are discussed below.

Allocations Adjustments Due to Inclusion and Exclusion of Facilities

Allocations for a facility are based on the facility's historical operations, the emission reduction requirements under the command-and-control rules subsumed by RECLAIM, the AQMP control measures subsumed by RECLAIM, and, for NO_x, an adjustment for BARCT equivalency. Facilities entering RECLAIM after 1994 are issued allocations according to the same methodology as that used for issuing facilities initially included at the beginning of the program. However, allocations issued for these facilities are only applicable for the compliance year upon entry and forward. As such, allocation supply data presented in this report have been updated to reflect the initial years that facilities entered the RECLAIM program. No facilities opted to join the NO_x RECLAIM program during Compliance Year 2008 and no facility was excluded during this compliance year. Therefore, no changes to the NO_x or SO_x RTC supplies occurred as a result of changes to the RECLAIM universe in Compliance Year 2008.

Allocations Adjustments Due to Clean Fuel Production

Rule 2002(c)(12) – Clean Fuel Adjustment to Starting Allocation, provides refineries with RTCs to compensate for their actual emissions increases caused by the production of CARB Phase II reformulated gasoline. The amount of these RTCs is based on actual emissions for the subject compliance year and historical production data. Based on the historical production data submitted, qualifying refineries were issued an aggregate baseline of 86.5 tons of NO_x and 42.3 tons of SO_x for Compliance Year 1999, 101.8 tons of NO_x and 41.4 tons of SO_x for Compliance Year 2000, and 98.4 tons of NO_x and 40.2 tons of SO_x for each subsequent Compliance Year. These refineries are required to submit, at the end of each compliance year, records to substantiate actual emission increases due solely to the production of reformulated gasoline. If actual emission increases for a subject year are different than the projected amount, the RTCs issued are adjusted accordingly (*i.e.*, excess RTCs issued will be deducted if emissions were less than projected; conversely, additional RTCs will be issued if emissions were higher than projected). For Compliance Year 2008, actual NO_x and SO_x emissions were lower than those projected at the time the applications

were approved. As a result, 15.1 tons of NOx RTCs and 19.5 tons of SOx RTCs were deducted from refineries' Compliance Year 2008 holdings.

Changes in RTC Allocations Due to Activity Corrections

RECLAIM facilities' allocations are determined by their reported historical activity levels (e.g., fuel usage, material usage, or production). If a facility makes corrections to its reported activity levels, the allocation is adjusted accordingly. There were no changes in RTC allocations due to activity corrections in Compliance Year 2008.

Conversions of Other Types of Emission Reduction Credits

Conversions of Mobile Source Emission Reduction Credits (MSERCs) and other types of emission reductions credits, besides regular stationary source Emission Reduction Credits (ERCs) issued under Regulation XIII – New Source Review, to RTCs are allowed under Rule 2008 – Mobile Source Credits, and several programs under Regulation XVI – Mobile Source Offset Programs and Regulation XXV – Intercredit Trading. There were no new RTCs issued as a result of conversion of other types of emission reduction credits in Compliance Year 2008.

Net Changes in RTC Allocations

The changes to RTC supplies described in the above sections resulted in a net decrease of 15.1 tons of NOx RTCs and a decrease of 19.5 tons of SOx RTCs for Compliance Year 2008. Table 2-1 summarizes the changes in NOx and SOx RTC supplies that occurred in Compliance Year 2008 pursuant to Rule 2002.

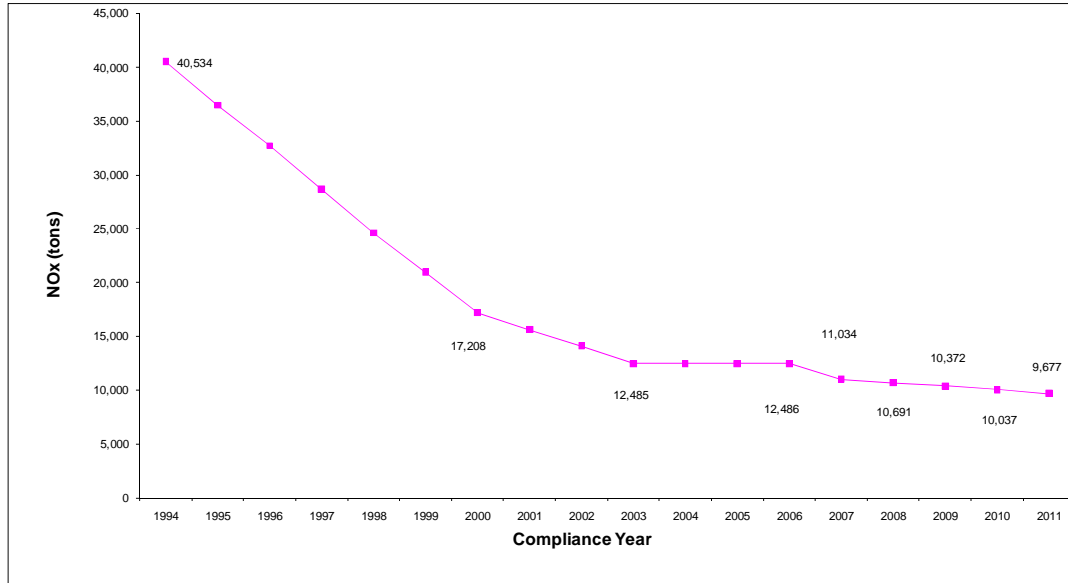
Table 2-1
Changes in NOx and SOx RTCs supplies during Compliance Year 2008 (tons/year)

Source	NOx	SOx
Universe changes	0	0
Clean Fuel/Reformulated Gasoline	-15.1	-19.5
Activity corrections	0	0
Mobile Source Emission Reduction Credits	0	0
Net change	-15.1	-19.5

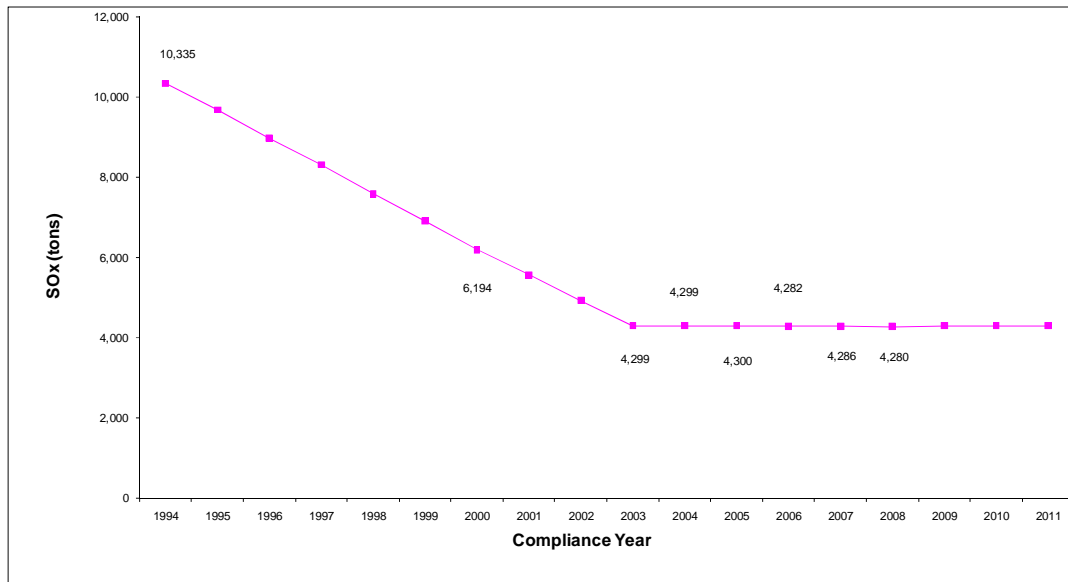
Note: The data in this table represents the changes that occurred over the course of the compliance year to the Compliance Year 2008 aggregate NOx and SOx RTC supplies originally issued pursuant to Rule 2002, not the difference between 2008 aggregate RTC supply and that for any other compliance year.

Figures 2-1 and 2-2 illustrate the total NOx and SOx RTC supplies at the end of Compliance Year 2008.

**Figure 2-1
NOx RTC Supply**



**Figure 2-2
SOx RTC Supply**



Upcoming SOx RTC Allocation Reduction

In March 2007, the USEPA issued the "Clean Air Fine Particle Implementation Rule," requiring non-attainment areas to meet particulate matter with aerodynamic diameter less than 2.5 microns (PM2.5) standards by 2010. Specifically, this rule requires non-attainment areas to evaluate and employ all

control measures to reduce direct PM_{2.5} emissions, as well as emissions of PM_{2.5} precursors, especially SO_x. Under this rule, AQMD is to achieve attainment with the fine particulate standards as expeditiously as possible. However, AQMD is allowed a one-time extension of up to five years, but no later than 2015, to achieve compliance with the standards. In addition, the California Clean Air Act (CCAA) requires the AQMD to achieve and maintain state standards by the earliest practicable date.

In July 2007, AQMD adopted the 2007 Air Quality Management Plan (AQMP), which serves as the region's attainment demonstration for the annual average PM_{2.5} standards and included a formal request to extend USEPA's annual average PM_{2.5} attainment date to 2015. The 2007 AQMP includes Control Measure CMB-02 - Further SO_x Reductions for RECLAIM (SO_x) to address the implementation process to meet the annual average PM_{2.5} standards. This control measure proposes to further reduce SO_x allocations by approximately 3 tons per day, with the reductions phased in from 2011 to 2014. The reduction in SO_x will be an essential part in the effort for the South Coast Air Basin in attaining the anticipated federal 24-hour average PM_{2.5} standard by 2020.

In February 2008, AQMD started the rule amendment process for Regulation XX - RECLAIM to implement CMB-02. The process includes technical and cost analyses to determine BARCT for categories of SO_x sources in RECLAIM. Third party consultants were hired to perform technical analysis of available SO_x control technologies. Preliminary analysis indicated that the current technology can result in higher emission reductions than the 3 tons per day level projected in the 2007 AQMP. There have been many stakeholder meetings, public workshops, Stationary Source Committee Meetings, and a Refinery Source Committee Meeting. CEQA, socio-economic and market analyses are also in the process of being performed. An informational hearing intended to provide the Governing Board a status update and to provide an opportunity for public comment regarding the proposed amendments to Rule 2002 – Allocations for Oxides of Nitrogen (NO_x) and Oxides of Sulfur (SO_x) was held in January 2010. AQMD and the stakeholders have discussed a plan to resolve outstanding issues, which includes discussions on the appropriate BARCT levels taking into account cost effectiveness as a criterion. A public hearing on adoption of proposed amendments is anticipated in the second quarter of 2010.

Upcoming Proposal for Credit Generation

AQMD is currently evaluating adoption of a rule that will allow emission reduction credits through the control of exhaust emissions from auxiliary engines and/or boilers used on Ocean-Going Vessels while at berth in a commercial marine port (Proposed Rule 2512 – Credit Generation Program for Ocean-Going Vessels at Berth, currently NO_x and SO_x emissions reduction scheduled for public hearing in April 2010). Under the current proposal, the resultant credits are allowed for use in the RECLAIM program.

RTC Price Reporting Methodology

On September 7, 2007, the Governing Board approved a new reporting methodology for RTC trades that is more reflective of the market and minimizes the potential for price manipulation. Under this new reporting methodology,

trades of specific, discrete-year RTCs are reported to AQMD separately from trades involving blocks of RTCs with a specified start year and continuing into perpetuity (also known as infinite-year blocks or IYBs). Discrete-year trades continue to be reported in terms of dollars per pound and averaged in dollars per ton of RTCs for each discrete compliance year while IYB trade prices are reported separately and as total dollar value for total amount of IYB traded, and averaged as a total dollar value per ton of IYB RTC.

In addition, the new reporting methodology also identified swap trades as having the potential to adversely impact the calculated average annual prices of RTCs, because prices reported for swap trades are based on the agreed upon value of the trade by the participants, and do not involve exchange of funds for the total value agreed upon. Therefore, reported prices for swap trades are excluded from the calculation of average annual RTC price under this new reporting methodology. Further details regarding the new reporting methodology for RTC trades can be found in the report entitled "Evaluation and Review of the RECLAIM Program and Assessment of RTC Price Reporting," dated September 7, 2007.

The Governing Board also established new program review thresholds for IYB trades through Board Resolution No. 07-20. Accordingly, the new program review price thresholds for IYB RTCs (equivalent to 15 times the 1993 thresholds with CPI adjustments) are \$558,267 per ton of NO_x RTCs and \$401,952 per ton of SO_x RTCs in 2009 dollars.

RTC Trading Activity

Overall Trading Activity

The RTC market slowed down in calendar year 2009. The calendar year 2009 trading activity—435 total registered trade transactions (393 NO_x trades and 42 SO_x trades)—was significantly lower than trading activity in calendar year 2008 (573 total registered trade transactions). These trades included discrete and IYB RTCs traded with prices, discrete and IYB RTCs transfers with zero price, and discrete and IYB RTC swap trades. Excluding swaps, a total value of \$22.6 million was traded in calendar year 2009 (\$18.6 million for NO_x and \$4.0 million for SO_x) compared to the total value of \$58.9 million traded in calendar year 2008. The last time annual trading value was at this low level in the last ten years was during 2003 and 2004 when NO_x allocation reduction was being discussed. Figure 2-3 shows historical trading values (excluding swaps). Figure 2-4 summarizes overall trading activity (excluding swaps) in calendar year 2009 by pollutant.

Figure 2-3
Annual Trading Values (Excluding Swaps)

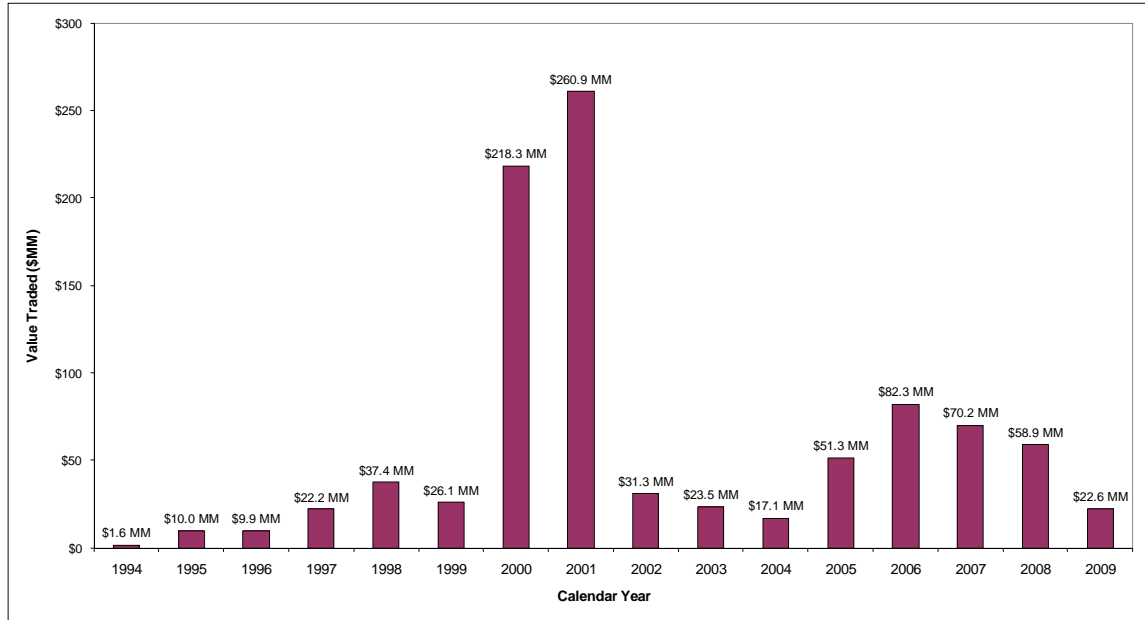
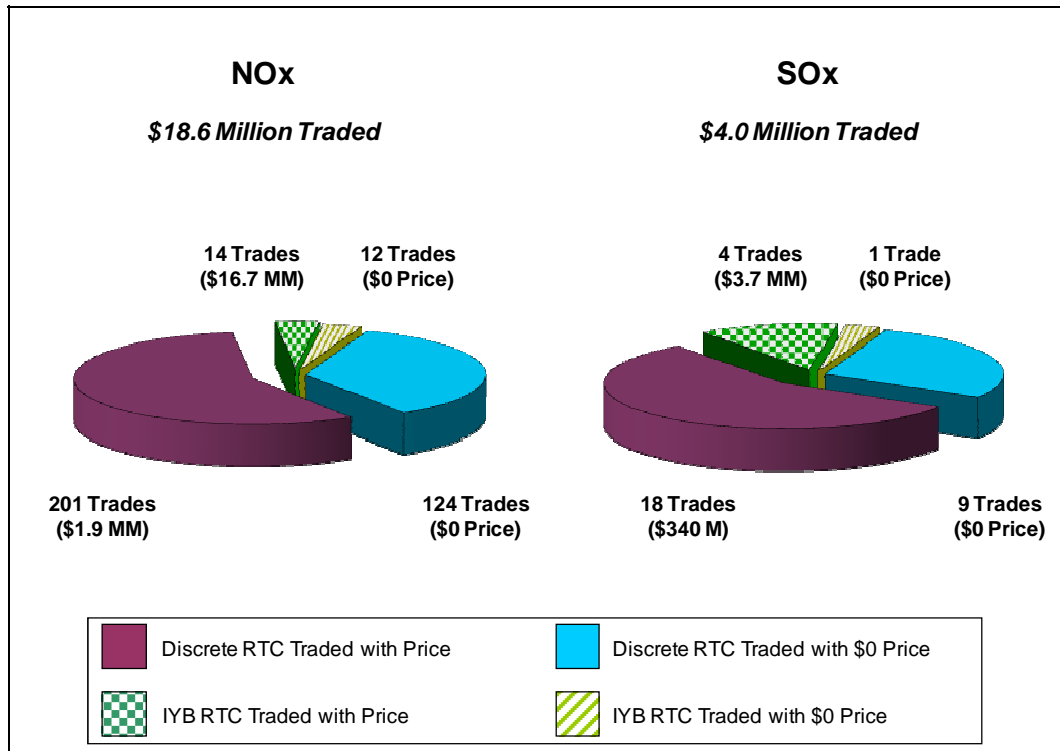


Figure 2-4
Calendar Year 2009 Overall Trading Activity (Excluding Swaps)



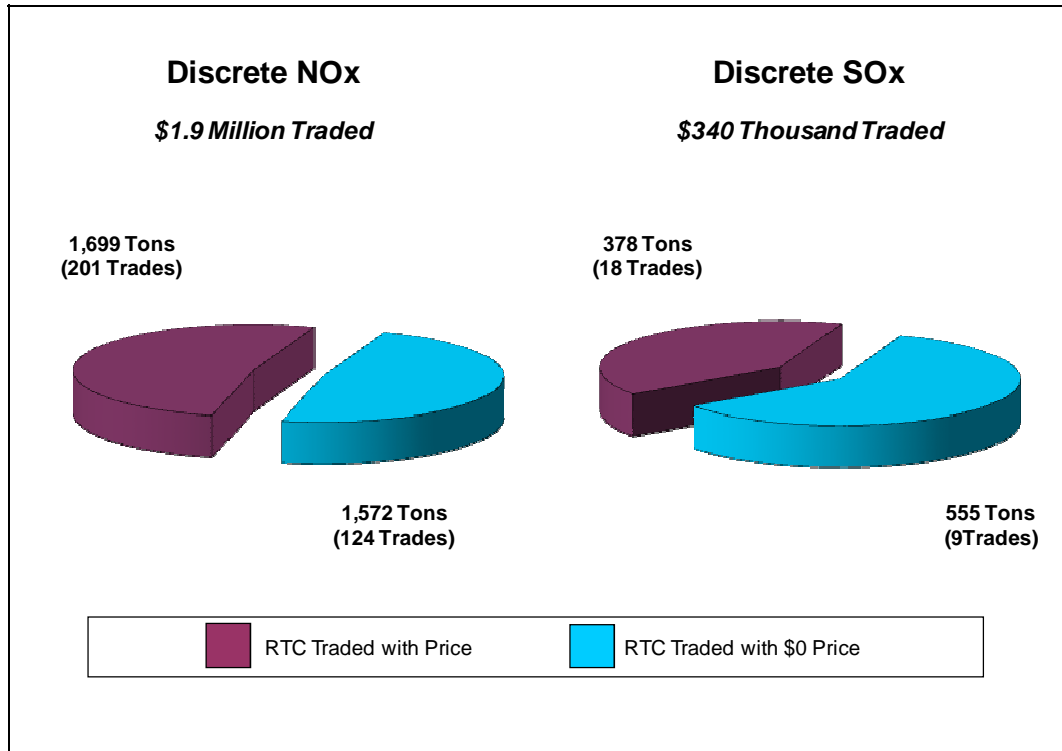
RTC transfers with zero price generally occur when a seller transfers or escrows RTCs to a broker, when there is a transfer between facilities under common operator, or when there is a transfer between facilities that have gone through change of operator. Trades with zero price also occur when the trading parties have mutual agreements where one party provides a specific service (*e.g.*, providing steam or other process components) for the second party. In return, the second party will transfer the RTCs necessary to offset emissions generated from the service.

Discrete RTC Trading Activity

As in past years, all discrete RTC trades in calendar year 2009 involved RTCs for Compliance Year 2010 and earlier. Even though 2011 is approaching, there were no discrete Compliance Year 2011 or later RTC trades. In calendar year 2009 there were a total of 325 trades and 27 trades of discrete NOx and SOx RTCs, respectively. Of the 325 discrete NOx trades, 201 were traded with price totaling 1,699 tons in volume and \$1.9 million in value. Of the 27 SOx trades, 18 were traded with price totaling 378 tons in volume and \$0.3 million in value. In addition, there were 1,572 tons of discrete NOx and 555 tons of discrete SOx traded with zero price.

Both discrete NOx and SOx RTC trades in 2009 showed a significant decrease in both total value and quantity traded compared to trades in 2008. The value of discrete NOx RTCs traded decreased from \$4.7 million in calendar year 2008 to \$1.9 million in calendar year 2009; likewise, the quantity of discrete NOx RTCs traded with price decreased from 2,386 tons to 1,699 tons. The overall quantity of discrete NOx RTCs fell from 4,362 tons traded in calendar year 2008 to 3,271 tons in calendar year 2009. The total value of discrete NOx trades of \$1.9 million traded was also significantly lower than all the previous years except calendar year 1994. The value of discrete SOx RTCs traded decreased from \$1.1 million to \$0.3 million. The quantity traded with price also decreased from 959.4 tons in 2008 to 378 tons in 2009, while the overall quantity declined from 1,487.4 tons to 933 total tons. Possible causes for the lower trading activities include the economic slowdown in 2008 and 2009 that resulted in lower emissions at RECLAIM facilities, and the trading of discrete RTCs involving only three compliance years (2008, 2009 and 2010). RECLAIM facilities' emissions are discussed in detail in Chapter 3 of this audit report. Figure 2-5 illustrates the discrete RTCs' trading activity (excluding swaps) for calendar year 2009.

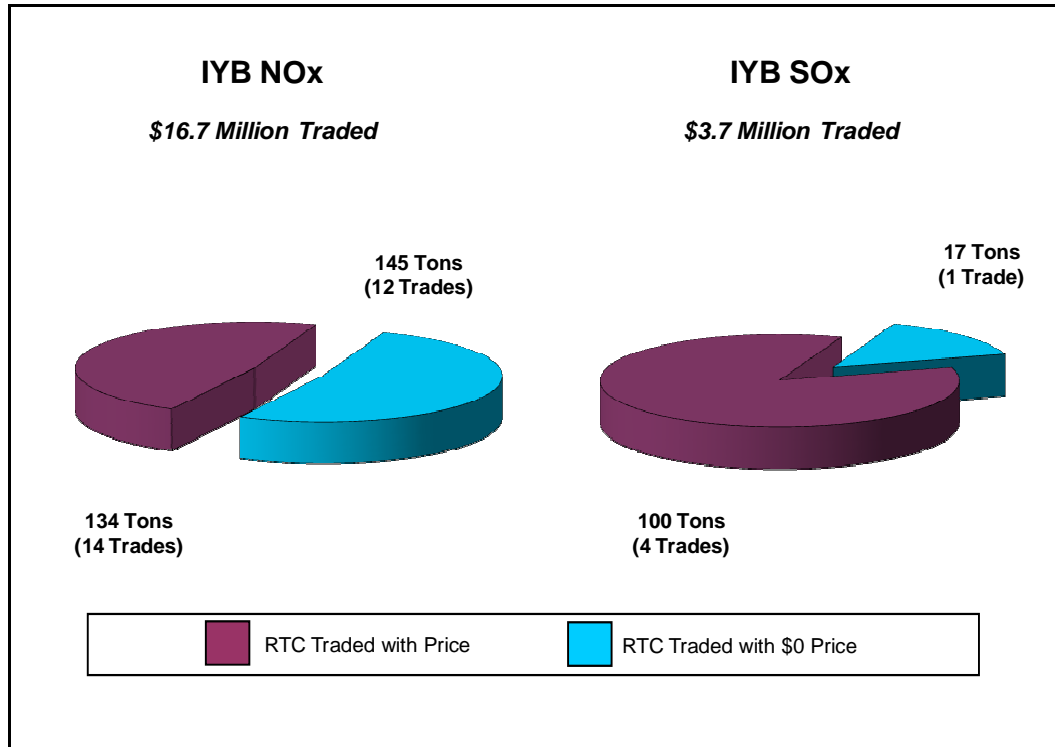
Figure 2-5
Calendar Year 2009 Trading Activity for Discrete RTCs (Excluding Swaps)



IYB RTC Trading Activity

Infinite-year blocks or IYB RTCs include RTCs valid for a certain specified start year and continuing into perpetuity. In 2009, there were 26 IYB NOx trades and five IYB SOx trades. All of these IYB trades include 2011 as the start year. Of the 26 IYB NOx trades, 14 trades were with price totaling \$16.7 million and 134 tons which represents a significant reduction from 2008 (27 trades with price totaling \$49.7 million and 246 tons) and more than 38% drop in the average price for IYB NOx RTCs in 2009. There were four IYB SOx RTC trades with price totaling 100 tons which was significantly lower than the 147 tons traded with price in 2008. However, the total value of these IYB SOx trades (\$3.7 million) was slightly higher than the total value in 2008 (\$3.3 million), reflecting an almost 65% increase in average price for IYB SOx RTCs in 2009. Figure 2-6 illustrates the calendar year 2009 IYB RTC trading activity excluding swap trades.

Figure 2-6
Calendar Year 2009 Trading Activity for IYB RTCs (Excluding Swaps)



Trade data presented in this report, including historical data prior to 2001, are compiled strictly according to the new reporting methodology approved by the Governing Board in 2007. Whereas, data in previous RECLAIM audit reports, prior to Compliance Year 2006, did not distinguish between discrete, IYB, and swap trades. The last two previous annual audit reports (Compliance Years 2006 and 2007) contained data presented using both the new approved reporting method and the prior method. Swap information and details of discrete and IYB trades were not required to be provided by trade participants prior to the amendment of Rule 2007 – Trading Requirements in May 2001. In compiling data for calendar years 1994 through part of 2001, any trade registration involving infinite-year RTCs was considered a single IYB trade and swap trades were assumed to be nonexistent. Trading activity since inception of the RECLAIM program is illustrated in Figures 2-7 through 2-10 (discrete NOx trades, discrete SOx trades, IYB NOx trades, and IYB SOx trades, respectively) based on the new trade reporting methodology. Figures 2-7 and 2-8 show the total volume of discrete NOx and SOx RTCs traded (excluding swaps) in 2009 was at the lowest level since inception of the RECLAIM program in 1994.

Figure 2-7
Discrete NOx RTCs Trades (Excluding Swaps)

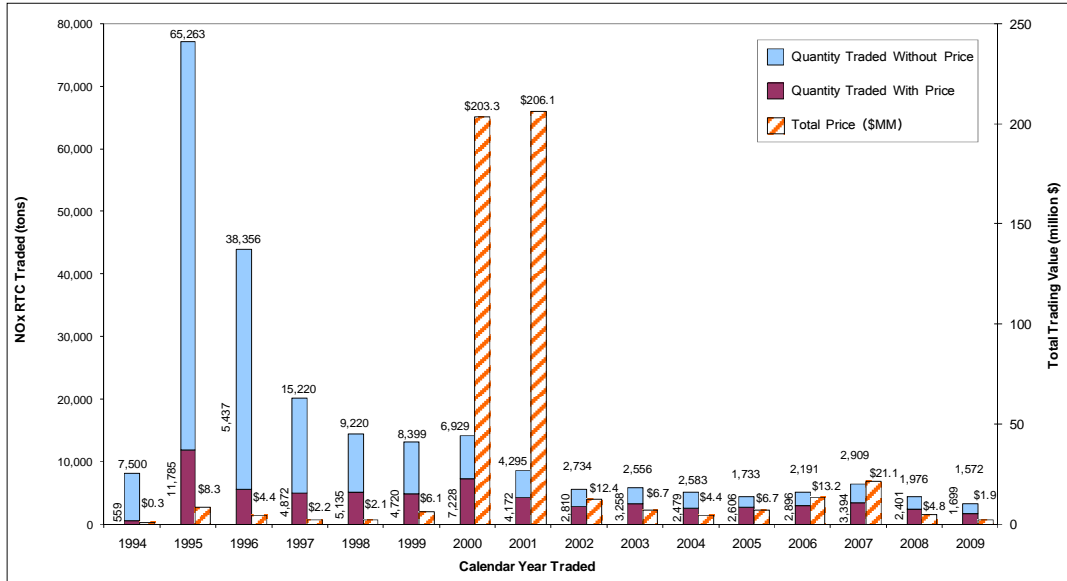
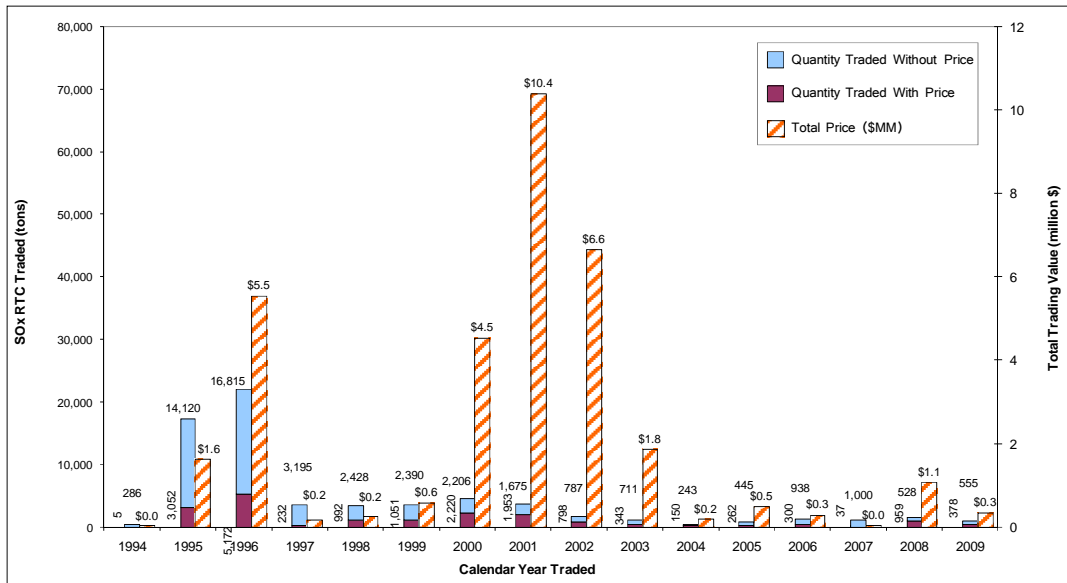
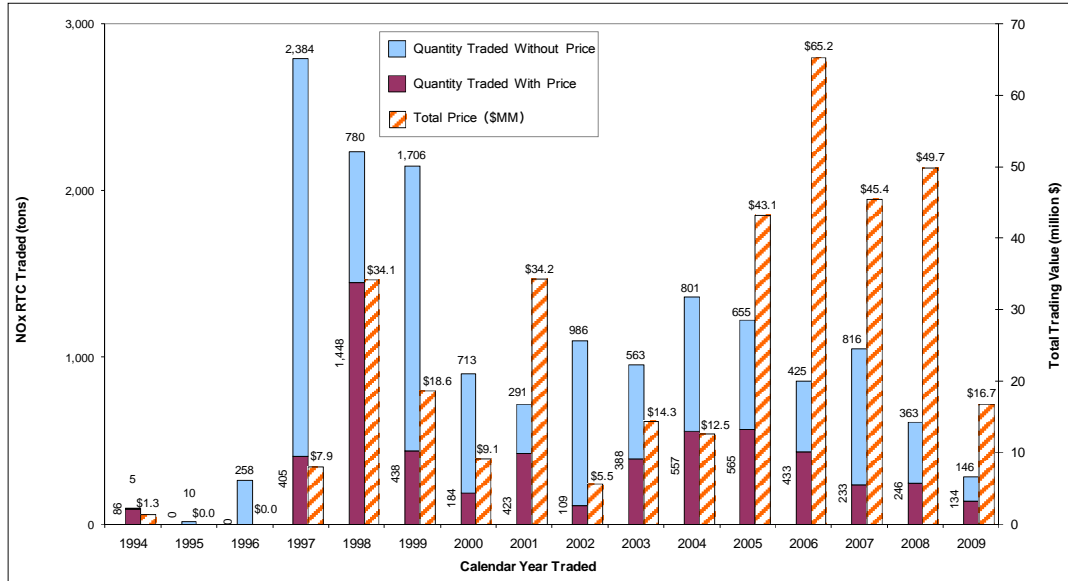


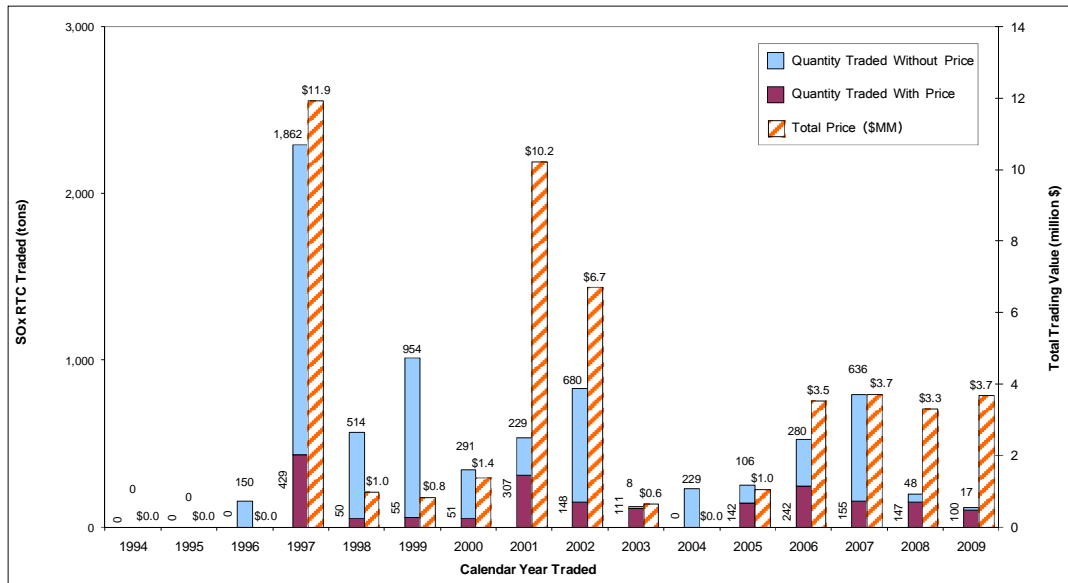
Figure 2-8
Discrete SOx RTCs Trades (Excluding Swaps)



**Figure 2-9
IYB NOx RTCs Trades (Excluding Swaps)**



**Figure 2-10
IYB SOx RTCs Trades (Excluding Swaps)**



Swap Trades

In addition to traditional trades of RTCs for a price, RTC swaps also occurred between the trading partners. There were swaps of RTCs with different zones, cycles, expiration years, and pollutants in 2009. Two of the NOx RTC swaps in calendar year 2009 involved IYB RTCs. In addition, IYB SOx RTCs were swapped for ERCs. In some cases, swaps involved a combination of RTCs and

cash payment as a premium. Trading parties swapping RTCs were required to report the agreed upon price of RTCs for each trade even though, with the exception of the above-described premiums, no money was actually exchanged. Over \$59 million in total value was reported from RTCs that were swapped in 2009. The swap values are based on the prices reported on the RTC trade registrations. RTC swap trades happen when two trading partners “swap” RTCs. Values reported on both “swap” trades are included in the calculation of total value reported. In cases where commodities other than RTCs are involved in the swap, these commodity values are not included in the above reported total value. (For example, in the case of a swap of NOx RTCs valued at \$10,000 for another set of RTCs valued at \$8,000 together with a premium of \$2,000, the value of such a swap would have been reported at \$18,000 under Table 2-2).

Including swap transactions in the calculation of average annual RTC prices would result in misrepresenting the actual cost of RTCs. This was most apparent for NOx transactions in calendar year 2009. The total value of \$55.76 million for the swap of 394 tons of IYB NOx and 1,188 tons of discrete NOx RTCs was much higher than the \$18.6 million for the trade of 134 tons of IYB NOx and 1,699 tons of discrete NOx RTCs. Therefore, including swap transactions in the average trade price calculations would result in calculated average annual prices dominated by swap transactions and not representative of the market prices actually paid for RTCs. Again, under the Governing Board-approved price reporting methodology, prices of swap trades are excluded from analysis of average trade prices because the values of the swap trades are agreed upon between trade partners and do not reflect actual funds transferred. Tables 2-2 and 2-3 present the calendar years 2001 through 2009 RTC swaps for NOx and SOx, respectively. As shown in Tables 2-2 and 2-3, the total value of both NOx and SOx RTC swaps were significantly higher in calendar year 2009 compared to the previous calendar years.

**Table 2-2
NOx Registrations Involving Swaps**

Calendar Year	NOx								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total Value (\$MM)	\$24.29	\$14.31	\$7.70	\$3.74	\$3.89	\$7.29	\$4.14	\$8.41	\$55.76
IYB RTC Swapped with Price (tons)	6	64	70	0	19	15	0	4	394
Discrete RTC Swapped with Price (tons)	612	1,702	1,198	1,730	885	1,106	820	1,946	1,188
Number of Swap Registrations with Price	71	94	64	90	53	49	43	48	37
Total Number of Swap Registrations	78	94	64	90	53	49	49	50	42

Table 2-3
SOx Registrations Involving Swaps

Calendar Year	SOx								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total Value (\$MM)	\$1.53	\$6.11	\$5.88	\$0.39	\$2.16	\$0.02	\$0.00	\$0.40	\$3.63
IYB RTC Swapped with Price (tons)	18	27	21	0	44	0	0	0	55
Discrete RTC Swapped with Price (tons)	240	408	656	162	228	24	0	197	401
Number of Swap Registrations with Price	3	30	32	13	13	2	0	5	9
Total Number of Swap Registrations	4	30	32	13	13	2	0	8	10

RTC Trade Prices

Discrete-Year RTC Prices

In 2009, the average annual prices for discrete-year NOx RTCs ranged from \$809 per ton for Compliance Year 2008 to \$4,780 per ton for Compliance Year 2010. These average NOx RTC prices were significantly lower than prices in calendar year 2008. The average annual prices for discrete-year SOx RTCs ranged from \$653 per ton for Compliance Year 2008 to \$1,488 per ton for Compliance Year 2009. Compliance Year 2008 SOx RTCs were traded at a much lower price in calendar year 2009 than those traded in 2008. However, the average annual price for Compliance Year 2009 SOx RTCs was comparable to 2008. Figures 2-11 and 2-12 present the average annual prices for discrete-year NOx and SOx RTCs during calendar years 2002 through 2009, respectively. Note that prices for any Compliance Year RTC may also be shown for the following calendar year. The price for a Compliance Year RTC is based on sales of both Cycle 1 RTCs expiring in December of that year as well as Cycle 2 RTCs expiring in June of the following year. Furthermore, Cycle 1 RTCs expiring in December may be traded during the 60-day reconciliation period following the expiration date, which extends to the next calendar year.

Figure 2-11
Average Annual Prices for Discrete-Year NOx RTCs during Calendar Years 2002 through 2009

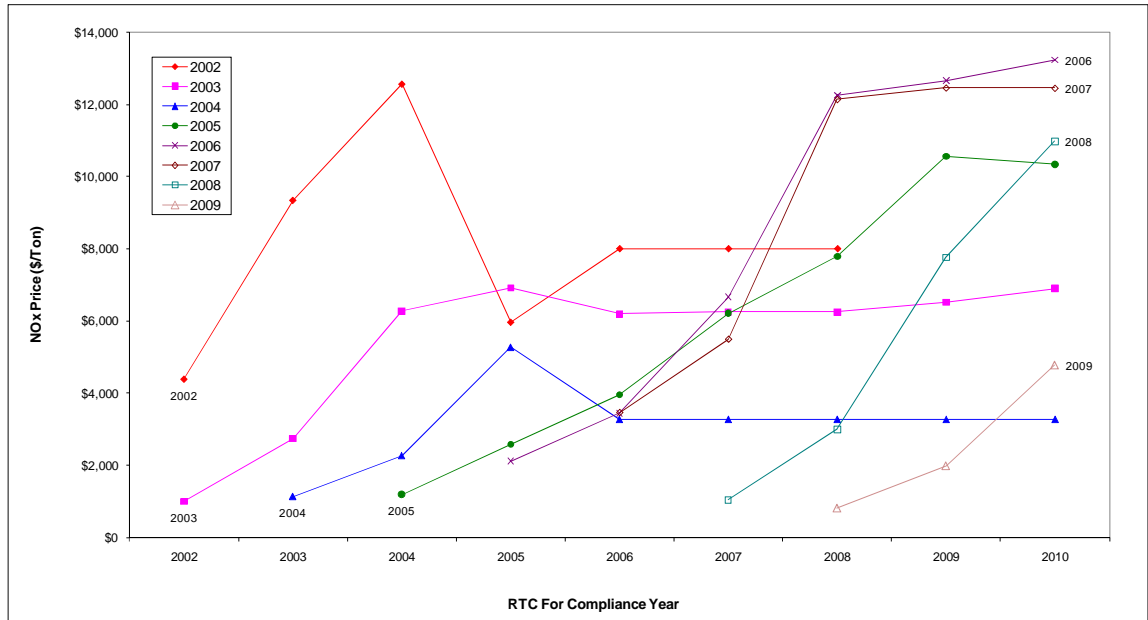
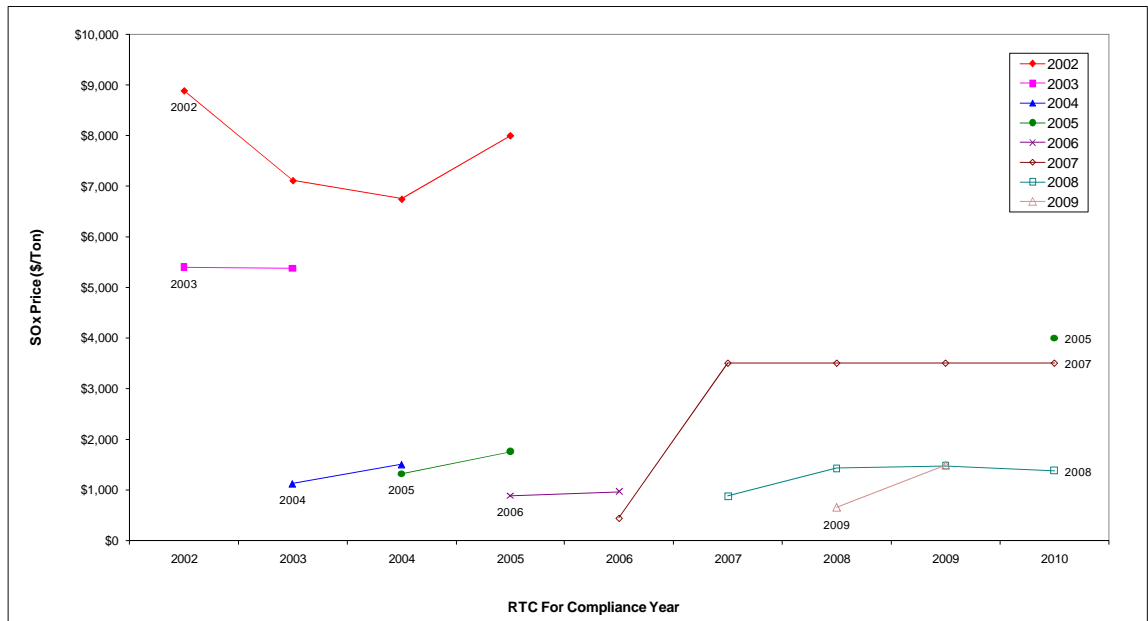


Figure 2-12
Average Annual Prices for Discrete-Year SOx RTCs during Calendar Years 2002 through 2009



Twelve-Month Rolling Average Prices of Compliance Year 2009 NOx RTCs

The Governing Board amended Rule 2002(f) in January 2005 to reduce Compliance Year 2007 and beyond NOx RTC holdings by 22.5% over five years (11.7% in 2007 and an additional 2.7 % in each of the years 2008 through 2011), to convert the 10.8% adjustment applied over years 2008 through 2011 to Non-Tradable/Non-Usable RTCs, and to issue them to the parties that held the RTCs prior to conversion. These amendments also directed the Executive Officer to calculate the 12-month rolling average price of NOx RTCs (“rolling average price”) “for all trades for the current compliance year” excluding “RTC transactions reported at no price.” Pursuant to the RTC price reporting and averaging methodology approved by the Governing Board in September 2007, “swap” transactions (the exchange of RTCs for other RTCs or for other emissions credits) were also excluded from the calculation of rolling average prices. In the event that this rolling average price exceeds \$15,000 per ton, the Executive Officer is required to report the rolling average price to the Governing Board. If the Governing Board determines that the rolling average price exceeds \$15,000 per ton it may direct the Executive Officer to convert the annual incremental Non-Tradable/Non-Usable RTCs (2.7%) back to active, tradable RTCs valid for the compliance year in which Cycle 1 facilities are operating at the time the finding is made. In its resolution amending Rule 2002(f), the Governing Board directed the Executive Officer to report the NOx RTC 12-month rolling average price data to the Stationary Source Committee at least quarterly. Such reports have been prepared and submitted. No report to date has shown the twelve-month rolling average prices to be over the \$15,000 per ton threshold.

As shown in Table 2-4, the twelve-month rolling average prices of Compliance Year 2009 NOx RTCs have been declining since January 2009 and have not exceeded the \$15,000 per ton threshold specified in Rule 2002(f). Therefore, it was not necessary for the Executive Officer to report the rolling average price to the Governing Board or for the Governing Board to consider reinstating the incremental NOx RTC adjustment for Compliance Year 2009. For Compliance Year 2008 NOx RTC, the same findings were true and were included in the last RECLAIM Annual Audit Report submitted to the Governing Board in March 2009.

**Table 2-4
Twelve-Month Rolling Average Price Data for Compliance Year 2009 NOx RTCs**

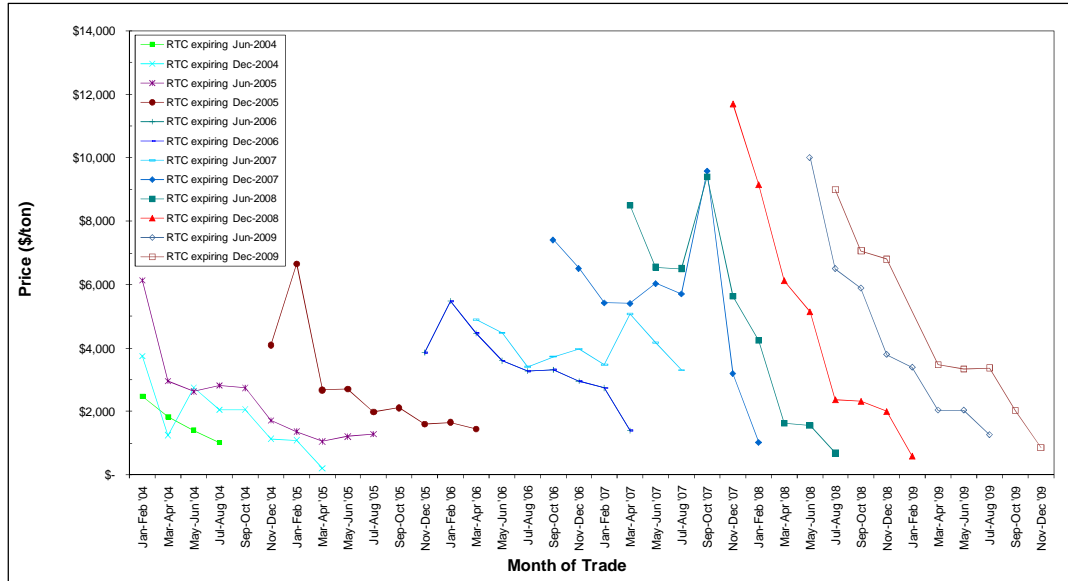
Reporting Month	12-Month Period	Average Price
January 2009	January through December 2008	\$7,763 per ton
February 2009	February 2008 through January 2009	\$7,672 per ton
March 2009	March 2008 through February 2009	\$7,668 per ton
April 2009	April 2008 through March 2009	\$7,646 per ton
May 2009	May 2008 through April 2009	\$7,473 per ton
June 2009	June 2008 through May 2009	\$7,385 per ton
July 2009	July 2008 through June 2009	\$6,877 per ton
August 2009	August 2008 through July 2009	\$6,580 per ton
September 2009	September 2008 through August 2009	\$ 6,424 per ton
October 2009	October 2008 through September 2009	\$ 6,378 per ton
November 2009	November 2008 through October 2009	\$ 3,977 per ton
December 2009	December 2008 through November 2009	\$ 2,588 per ton
January 2010	January through December 2009	\$1,986 per ton

Average Price for NOx RTCs Nearing Expiration

Generally, RTC prices decrease as their expiration dates approach. RTC prices are usually lowest during the 60 day-period following their expiration date during which facilities are allowed to trade to reconcile by securing RTCs to cover their emissions. This pattern has been repeated every year since 1994 except for Compliance Years 2000 and 2001 (the time of the California energy crisis), when NOx RTC prices increased as the expiration dates approached because there was a shortage of NOx RTCs. In calendar year 2009, prices for NOx RTCs that expired within the same calendar year followed the general trend of RTC prices declining over the course of the Compliance Year.

The bi-monthly average price for these near-expiration NOx RTCs is shown in Figure 2-13 to illustrate the general price trend for these RTCs. The general declining trend of RTC prices nearing expiration indicates that there was an adequate supply to meet RTC demand during the final reconciliation period following the end of the compliance years. A similar analysis is not performed for the price of SOx RTCs nearing expiration because there are not enough SOx trades over the course of the year to yield meaningful data.

Figure 2-13
Bi-Monthly Average Price for NOx RTCs near Expiration



Note: A limited set of data points are used to avoid overcrowding the graph.

IYB RTC Prices

The average annual price for IYB NOx RTCs traded in 2009 is \$124,576 per ton, which is significantly lower than the average annual price of \$202,402 per ton traded in 2008. The average annual price for IYB SOx RTCs is \$36,550 per ton, which is much higher than the \$22,479 per ton traded in 2008. Data regarding IYB RTCs traded with price (excluding swap trades) for NOx and SOx RTCs are summarized in Tables 2-5 and 2-6, respectively. In calendar year 2009, the average annual IYB RTC prices did not exceed the \$558,267 per ton of NOx RTCs or the \$401,952 per ton of SOx RTCs program review thresholds established by the Governing Board pursuant to California Health and Safety Code §39616(f).

Investors were again involved in a significant proportion of IYB trades in calendar year 2009. They were involved with 57% and 100% with respect to value and 52% and 100% with respect to volume for IYB NOx and SOx RTCs, respectively. A more detailed discussion of investor participation is presented later in this chapter.

Table 2-5
IYB NOx Pricing (Excluding Swap Registrations)

Calendar Year	Total Reported Value (\$MM)	IYB RTC Traded with Price (tons)	Number of IYB Registrations With Price	Average Price (\$/ton)
1994*	\$1.3	85.7	1	\$15,623
1995*	\$0.0	0	0	N/A
1996*	\$0.0	0	0	N/A
1997*	\$7.9	404.6	9	\$19,602
1998*	\$34.1	1,447.6	23	\$23,534
1999*	\$18.6	438.3	19	\$42,437
2000*	\$9.1	184.2	15	\$49,340
2001*	\$34.2	416.9	25	\$82,013
2002	\$5.5	109.5	31	\$50,686
2003	\$14.3	388.3	28	\$36,797
2004	\$12.5	557.0	52	\$22,481
2005	\$43.1	565.3	71	\$76,197
2006	\$65.2	432.9	50	\$150,665
2007	\$45.4	233.5	25	\$194,369
2008	\$49.7	245.6	27	\$202,402
2009	\$16.7	134.2	14	\$124,576

* No information regarding swap trades is available for trades occurring in 1994 through 2001.

Table 2-6
IYB SOx Pricing (Excluding Swap Registrations)

Calendar Year	Total Reported Value (\$MM)	IYB RTC Traded with Price (tons)	Number of IYB Registrations With Price	Average Price (\$/ton)
1994*	\$0.0	0	0	N/A
1995*	\$0.0	0	0	N/A
1996*	\$0.0	0	0	N/A
1997*	\$11.9	429.2	7	\$27,738
1998*	\$1.0	50.0	1	\$19,360
1999*	\$0.8	55.0	3	\$14,946
2000*	\$1.4	50.6	5	\$27,028
2001*	\$10.2	306.8	8	\$33,288
2002	\$6.7	147.5	5	\$45,343
2003	\$0.6	110.9	1	\$5,680
2004	\$0.0	0.0	0	N/A
2005	\$1.0	141.5	3	\$7,409
2006	\$3.5	241.7	12	\$14,585
2007	\$3.7	155.2	5	\$23,848
2008	\$3.3	146.8	5	\$22,479
2009	\$3.7	100.0	4	\$36,550

* No information regarding swap trades is available for trades occurring in 1994 through 2001.

Market Participants

RECLAIM market participants have traditionally included RECLAIM facilities, brokers, commodity traders, and private investors. Starting in calendar year 2004, mutual funds joined the traditional participants in RTC trades. Market participation expanded further in 2006, when foreign investors started participating in RTC trades.

RECLAIM facilities are the sources and users of RTCs. They usually sell their RTC surpluses by the end of the compliance year or when they have a long-term decrease in emissions. Brokers match buyers and sellers, and usually do not purchase or own the RTCs. Commodity traders and private investors actually invest in and own RTCs and seek profit by trading them. Three mutual funds and two foreign entities are registered with AQMD for the purpose of trading RTCs. The three mutual funds are controlled by a common fund manager. These three mutual funds held 2.5% (239 tons) of the total IYB NO_x RTCs and 5.4% (233 tons) of the total IYB SO_x RTCs as of the end of 2009. For discussion in this report, “investors” include everyone who holds RTCs and is not a RECLAIM facility permit holder or a broker.

Investors’ Participation

Commodity traders, mutual funds, and private investors invest in and own RTCs and seek profit by trading them. Investors’ involvement in discrete NO_x and SO_x trades registered with price¹ in calendar year 2009 is illustrated in Figures 2-14 and 2-15. In compiling data for these two figures, staff removed brokers’ involvement². Figure 2-14 is based on total value of discrete NO_x and SO_x RTCs traded, and shows that investors were involved in 56% and 100%, respectively, of the NO_x and SO_x trades reported by value. Figure 2-15 is based on discrete volume traded with price and shows that investors were involved in 68% and 100% of the NO_x and SO_x trades, respectively. Figures 2-16 and 2-17 provide similar data for both IYB NO_x and SO_x trades, and show that investors were involved in 57% of IYB NO_x trades and 100% of IYB SO_x trades on a reported value basis, and 52% of IYB NO_x and 100% of IYB SO_x trades on the basis of the number of pounds traded with price. As of the end of 2009, investors increased their holding of IYB NO_x RTCs to 5.5% (from 4.8% at the end of calendar year 2008), and they decreased their holding of IYB SO_x RTCs to 5.5% (from 7.9% at the end of calendar year 2008).

¹ Trades reported without price are excluded from this analysis because they typically represent movement between facilities under common ownership and trades associated with changes of facility operator, and are therefore not reflective of market behavior.

² The established convention for registering broker-involved RTC trades is to do so in two sequential steps: first from the seller to the broker, then from the broker to the buyer. However, to avoid double counting of brokered trades in this analysis, they are treated as if each brokered trade had been registered from the seller to the buyer in a single step.

Figure 2-14
Investor-Involved Discrete NOx and SOx Trades Based on Value Traded

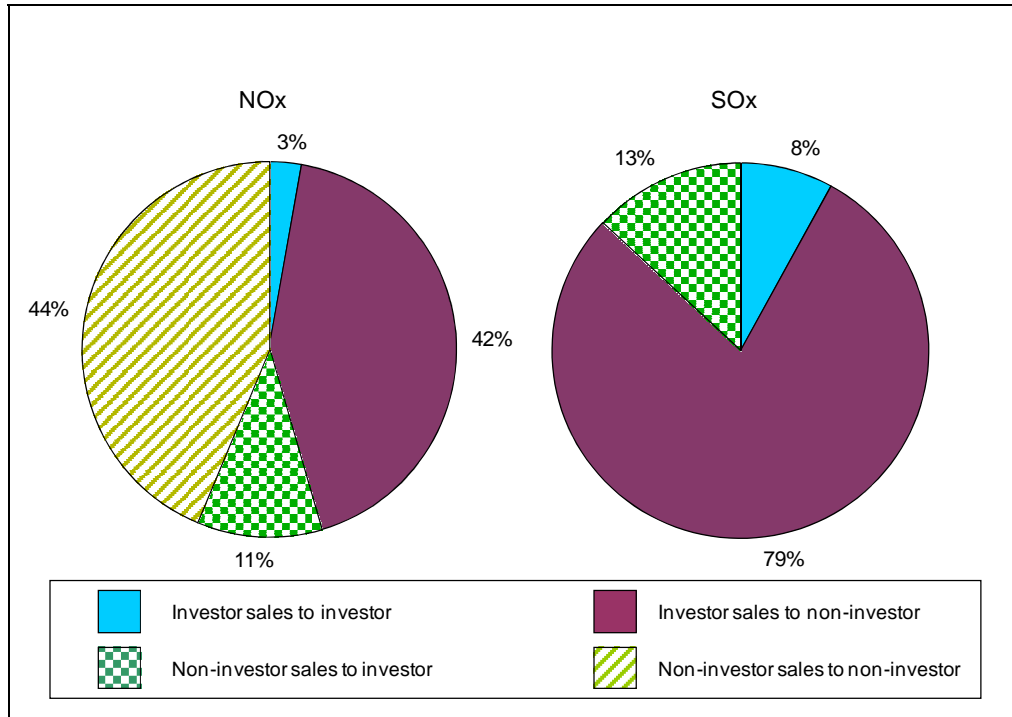


Figure 2-15
Investor-Involved Discrete NOx and SOx Trades Based on Volume Traded with Price

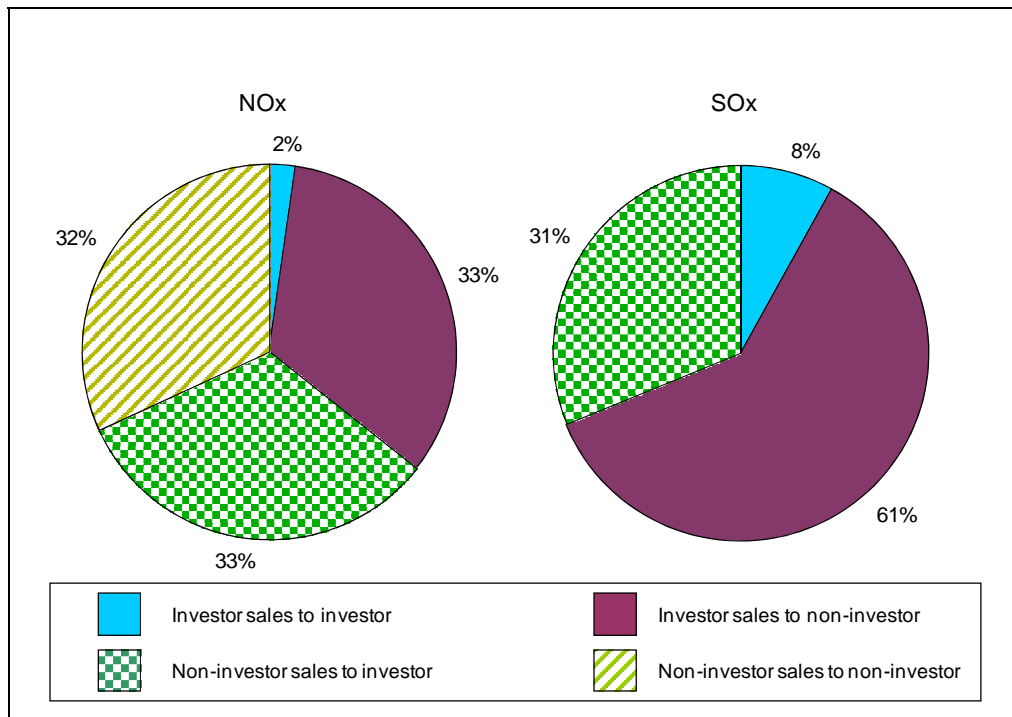


Figure 2-16
Investor-Involved IYB NOx and SOx Trades Based on Value Traded

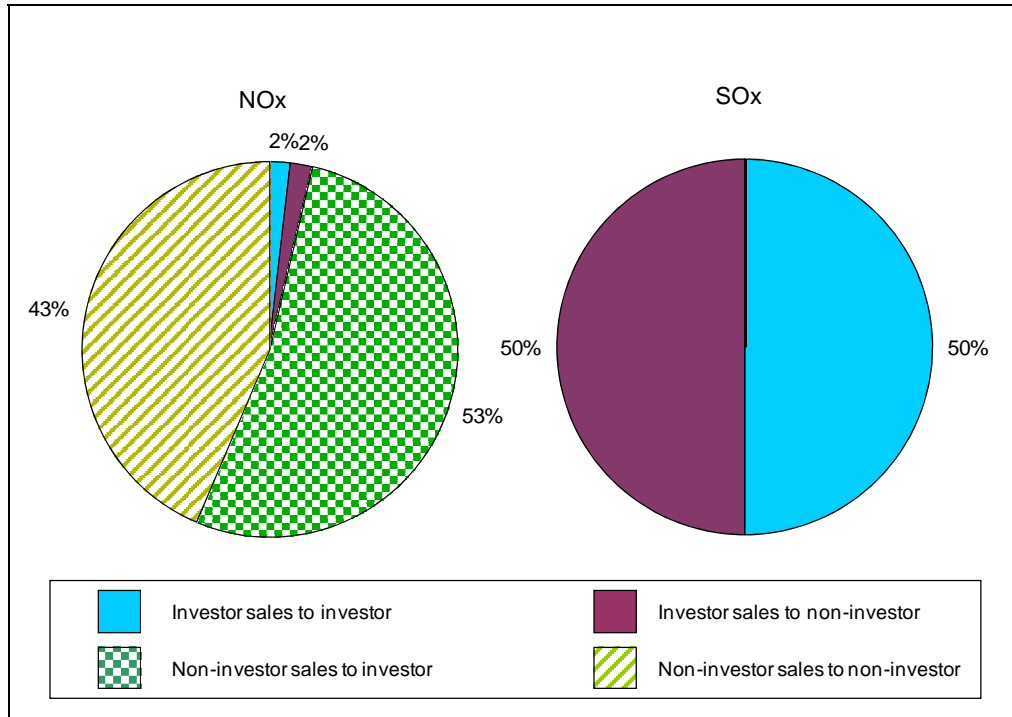
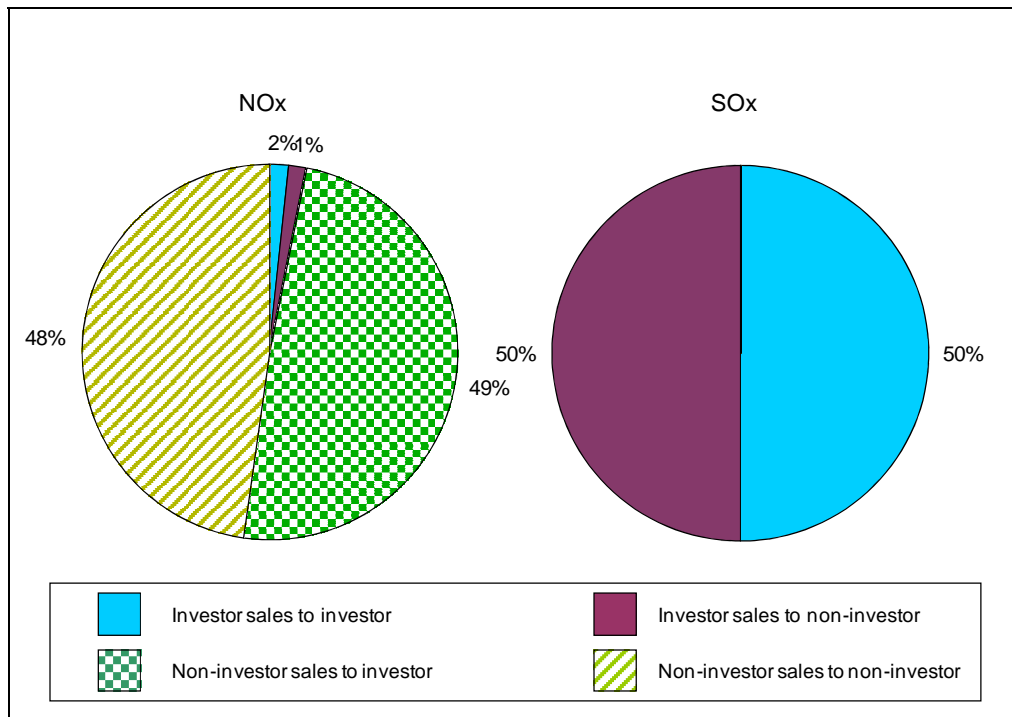


Figure 2-17
Investor-Involved IYB NOx and SOx Trades Based on Volume Traded with Price



The supply of IYB RTCs available for sale has been mainly from facilities that have permanently shut down. Investors have continued to be active in purchasing IYB RTCs from RECLAIM facilities that were shutting down. The six RECLAIM facilities that shut down during Compliance Year 2008 (refer to Chapter 1) held a total of 34 tons of IYB NOx RTCs. Of this amount, 7 tons (25%) were sold to investors, while 22 tons were sold or transferred to other RECLAIM facilities. The remaining 5 tons have not yet been sold or transferred.

Investors' Impacts on RTC Market

Theoretically, the role of investors in this market is to provide capital for installing air pollution control equipment that costs less than the market value of credits. In addition, investors can also improve price competitiveness. This market theory may not fully apply to RECLAIM due to the uniqueness of the program in that RECLAIM facility operators have no substitute for RTCs, and pollution controls cannot be implemented within a short time period. That is, there is no alternative source of credits available to RECLAIM facilities when RTC prices increase (they do not have the option to switch to apples when oranges become expensive). Therefore, they may be at the mercy of owners of surplus RTCs in the short term, particularly during times of rapid price increases, as evidenced in 2000 and 2001 during the California energy crisis.

To put investors' holdings in context, RECLAIM facilities have generally held back approximately 10% of their allocations each compliance year as a margin to ensure that they did not inadvertently find themselves exceeding (failing to reconcile by securing RTCs to cover their emissions) their allocations if their reported emissions were increased as the result of any problems or errors discovered by AQMD annual audits. For Compliance Year 2008, the total RECLAIM NOx emissions were 8,359 tons. However, Compliance Year 2008 spans a period marked by a depressed economy with low production at many manufacturing facilities and thus low emissions compared to historical levels. If the economy were to improve, total RECLAIM NOx emissions would likely increase to recent historical levels. RECLAIM NOx emissions as recent as Compliance Year 2007 totaled 8,794 tons. If emissions were to remain constant at that 2007 level, the NOx RTC surplus in 2011 would be 883 tons (9% of allocation)³, which is less than the traditional 10% compliance margin. Therefore, the current aggregate investors' holdings of 5.5% of NOx RTCs valid for Compliance Year 2011 and beyond (IYB RTCs) have the potential to result in a sellers' market.

While it can be argued that the holding of IYB RTCs by investors as a group is still small relative to the total supply of IYB RTCs (5.5% of both NOx and SOx), there is no clear basis to estimate the level of IYB RTCs available for sale by non-investors or the extent of additional emissions reductions that will be achieved by 2011. IYB RTCs represent an even more critical aspect of the program because these streams of RTCs are sought after to support growth at new or existing facilities. Accordingly, active facilities are less likely to sell their future year RTCs as IYB. As a result, new RECLAIM facilities or facilities with

³ Assuming emissions staying at Compliance Year 2008 level in 2011, the NOx RTC surplus would be at 13.6% [(9,677 - 8,359)/9,677].

emissions increases are potentially at the mercy of investors holding IYB RTCs. Moreover, investors may have the potential for greater market influence if the recent rise in investor-held IYB NOx RTCs continues.

On the other hand, overall emissions in RECLAIM will certainly change from now through 2011, and can be affected by various factors including installation of more emission control equipment, production change, and shifts in industry sectors. In January 2005, AQMD identified cost-effective control opportunities outside the power producing industry that would amount to 3.7 tons per day of additional NOx reductions based on historical production rates. The significance of investors' holdings will certainly depend on the ability of RECLAIM facilities to generate adequate surplus RTCs in time to dampen the effect of a sellers' market that may exist if demand surges in a short period of time, as it did during the California energy crisis of 2000-2001. Proposals to generate emission reduction credits from sources outside of RECLAIM (*i.e.*, mobile and area sources) can also dampen sudden price increases. Nonetheless, AQMD staff remains concerned about investor participation and is evaluating ways to ensure that such participation does not adversely impact the RECLAIM program.

Other Types of RTC Transactions and Uses

Another type of RTC trade, besides traditional trading and swapping activities, is a trade involving the contingent right (option) to buy or sell RTCs. In those transactions, one party pays a premium for the right to purchase or sell RTCs owned by the other party at a pre-determined price within a certain time period. Until RTCs are transferred from seller to buyer, prices for options are not reported, because the seller is not paid for the actual RTCs, but only for the right to purchase or sell the RTCs at a future date. These rights may or may not be actually exercised. RTC traders are obligated to report options to the AQMD within five days of reaching an agreement. These reports are posted on the AQMD website. There was no trade involving the contingent right (option) to buy or sell RTCs in 2009.

As in prior years, RTCs were used in other programs during 2009. RTCs were surrendered to mitigate impacts from construction projects under the California Environmental Quality Act. RTCs were also surrendered to satisfy variance conditions and in settlements with the AQMD. In Calendar Year 2009, a total 17.6 tons of NOx RTCs and less than 0.01 tons of SOx RTCs were surrendered to mitigate impacts from construction projects and to satisfy variance conditions. These consisted solely of discrete year RTCs. The majority of RTCs were retired to satisfy excess emissions under variance conditions.

CHAPTER 3 EMISSION REDUCTIONS

Summary

At the time of writing each of the previous annual RECLAIM audit reports, aggregate NOx and SOx emissions were based on both audited emissions as well as emissions reported in the Annual Permit Emissions Program (APEP) report and/or Quarterly Certification of Emissions Reports (QCERs) for some cases when audited emissions were not yet available. In the Compliance Year 2007 Annual RECLAIM Audit Report, staff committed to updating all previous years' aggregate NOx and SOx emissions with audited emission values in this annual report. Based on the results of emission audits, there is no change in the previously reported results indicating that RECLAIM continued to meet its emission goals, except Compliance Year 2000 aggregate NOx emissions still exceeded overall NOx allocations for that compliance year due to the effects of the California Energy Crisis (Compliance Year 2001 aggregate NOx emissions were previously identified to be in excess of overall NOx allocations but is no longer the case, mainly due to the exclusion of emissions from military technical support equipment pursuant to state law, Health and Safety Code §41754[a][3].)

For Compliance Year 2008, audited NOx and SOx emissions from RECLAIM facilities continued to be below allocations for this compliance year. Total aggregate NOx emissions were below total allocations by 22% and total aggregate SOx emissions were below total allocations by 21%. Therefore, based on audited emissions, it can be concluded that RECLAIM has achieved its targeted emission reductions. Finally, no emissions associated with breakdowns were excluded from reconciliation with facility allocations in Compliance Year 2008. Accordingly, no mitigation is necessary to offset excluded emissions due to approved Breakdown Emission Reports.

Background

One of the major objectives of the annual RECLAIM program audits is to assess whether RECLAIM is achieving its targeted emission reductions. The annual allocations issued to RECLAIM facilities reflect required emission reductions under the subsumed command-and-control rules and control measures. In January 2005, the Board adopted an amendment to Rule 2002 to further reduce RECLAIM NOx allocations to implement the latest BARCT. The adopted NOx allocation reductions are to be phased in during Compliance Years 2007 through 2011. These changes will result in cumulative NOx allocation reductions of 22.5% from all RECLAIM facilities when fully implemented in Compliance Year 2011, with the biggest single-year reduction of 11.7% in Compliance Year 2007.

In 2000, power producing facilities increased their power generation in response to the California energy crisis. The corresponding increases in RECLAIM NOx emissions caused a sudden surge in NOx RTC prices. This increase in NOx emissions adversely impacted other RECLAIM participants, as well as the overall NOx emission reduction objective of the program during that time period. To

correct this problem, the Governing Board amended Regulation XX in 2001 to bifurcate power producing facilities (as defined in Rule 2000[c][56]) from the rest of RECLAIM participants to stabilize RTC prices¹. Power producing facilities were still subject to RECLAIM program requirements, but they could not purchase additional RTCs to offset their emissions. Instead these facilities were eligible to participate in the Mitigation Fee Program that was in effect through the end of Compliance Year 2004. The RECLAIM rules were subsequently amended by the Governing Board on January 7, 2005 to allow power producing facilities to purchase NOx RTCs, valid for Compliance Year 2005 and after, from any party. As a result of the January 2005 rule amendments, there are no remaining trade restrictions on power producing facilities commencing with Compliance Year 2007.

At the time previous annual audit reports were prepared, full audits of all facility records have not been completed. Consequently, those annual audit reports were based on a mixture of both audited as well as reported emissions (APEP report and/or QCERs) data when audited emissions were not available. These emission data were not updated in subsequent audit reports to reflect additional completed audits. In the Compliance Year 2007 Annual Audit Report (March 2009), staff committed to updating all years' emissions (back to Compliance Year 1994) with audited data in the Compliance Year 2008 annual report. As such, all emissions data presented in this annual audit report are compiled from audits and include updates to prior years' emission data.

Emissions Audit Process

Since the inception of the RECLAIM program, AQMD has conducted regular audits of the emissions data submitted by RECLAIM facilities to ensure the integrity and reliability of facility reported data. The process begins when each facility submits a comprehensive APEP report within sixty days of the end of each compliance year. AQMD staff initially conducts a preliminary review of the APEP reports to assess the accuracy of reported emissions and compliance with allocations. If it is determined that a facility's APEP-reported emissions are in excess of its quarterly or year-to-date allocations, enforcement action is taken. The audit process is then followed up with field inspections to check the equipment, monitoring devices, and operational records, as well as with review of recorded data and calculations to verify accuracy of emission reports submitted during the course of the year (daily, monthly, quarterly, and annual reports).

Common findings from these audits reveal that some facilities made errors in quantifying their emissions, such as arithmetic errors, use of inappropriate emission factors, or inappropriate use of Missing Data Procedures (MDP). AQMD staff adjusts the APEP reported emissions based on audit results, as necessary, to correct such errors. Whenever AQMD staff finds discrepancies, they discuss the findings with the facility operators, and provide the operators an opportunity to review changes resulting from facility audits and to present additional data or arguments in support of the data stated in their APEP reports. This rigorous audit process, although resource intensive, reinforces RECLAIM's

¹ Bifurcation meant that existing power producing facilities were temporarily isolated from RECLAIM RTC trading, until it was determined that their reentry into RECLAIM RTC trading would not result in any negative impact on facilities in the RECLAIM universe.

emissions monitoring and reporting requirements and enhances the validity and reliability of the reported emissions data. The audited emissions are used to determine if a facility complied with its allocations. The most recent five compliance years' audited emissions for each facility are posted on the AQMD's web page after the audits are completed.

As mentioned previously, this annual audit report reflects the most up-to-date audited NO_x and SO_x emissions data. However, staff will continue to work with a few facilities to resolve outstanding issues which may need further analysis and will reflect necessary refinements, if any, in next year's annual RECLAIM audit report.

Emission Trends and Analysis

RECLAIM achieves its emission reduction goals on an aggregate basis by ensuring that annual emissions in total are below allocations. It is important to understand that the RECLAIM program is successful at achieving these emission reduction goals even when some individual RECLAIM facilities exceed their RTC account balances, provided aggregate RECLAIM emissions do not exceed aggregate RTC issued. Therefore, aggregate NO_x or SO_x emissions from all RECLAIM sources are the basis for determining whether the programmatic emission reduction goals for that emittant are met each year. In aggregating emissions from RECLAIM facilities, audited emissions are used in the Annual RECLAIM Report for that Compliance Year. Table 3-1 and Figure 3-1 show aggregate NO_x emissions based on audited emission data for Compliance Years 1994 through 2008.

Table 3-1 and Figure 3-1 show that, programmatically, there were excess NO_x RTCs remaining after accounting for fully audited NO_x emissions for every compliance year since 1994, except for Compliance Year 2000 when NO_x emissions exceeded the total RTC allocations for that year. Even though there was a programmatic reduction to Compliance Year 2008 NO_x holdings as part of the January 2005 rule amendments, Compliance Year 2008 NO_x emissions still achieved aggregate RECLAIM emission reduction goals and were below the total allocations by 22%. Given the fact that there were programmatic reductions in NO_x allocations starting with Compliance Year 2007 but yet the percentage of leftover NO_x RTCs in the program remains at 20 percent or higher, as is the case for Compliance Year 2008, there may be other forces at play to cause such results in addition to actual emission reductions implemented by RECLAIM facilities. Potentially, the effects of the nation's economic downturn over the last couple of years may also be a contributor to lower aggregate NO_x and SO_x emissions in the RECLAIM universe. Whether this development has short term or long lasting impacts is yet to be seen.

For comparison purposes, emissions previously reported in past annual reports are also included in Tables 3-1 and 3-2. As shown, there were minimal differences (the audited emissions were a maximum of four percent or less greater than previously reported emissions) between reported and audited emissions since Compliance Year 2001. As stated before, Compliance Year 2001 emissions are no longer in excess of aggregate allocations mainly due to the exclusion of military technical support equipment pursuant to state law (Health and Safety Code §41754(a)(3)) and not caused by results of audits.

Table 3-1
Annual NOx Emissions for Compliance Years 1994 through 2008

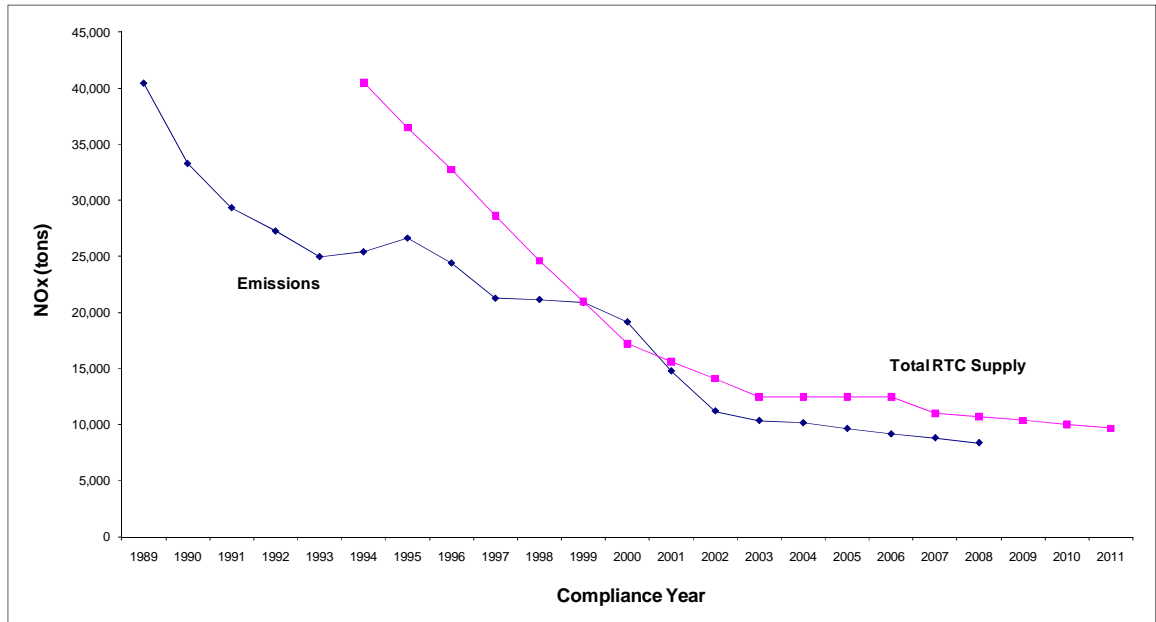
Compl. Year	Previously Reported Annual NOx Emissions ^{1,2} (tons)	Audited Annual NOx Emissions (tons)	% Change from Previously Reported Emissions	% Change from 1994	Total NOx RTCs ³ (tons)	NOx RTCs Left Over (tons)	NOx RTCs Left Over (%)
1994	25,314	25,420	0.42%	0%	40,534	15,114	37%
1995	25,764	26,632	3.4%	4.8%	36,484	9,852	27%
1996	24,796	24,414	-1.5%	-4.0%	32,742	8,328	25%
1997	21,786	21,258	-2.4%	-16%	28,657	7,399	26%
1998	20,982	21,158	0.84%	-17%	24,627	3,469	14%
1999	20,775	20,889	0.55%	-18%	20,962	73	0.35%
2000	20,491	19,148	-6.6%	-25%	17,208	-1,940	-11%
2001	15,721	14,779	-6.0%	-42%	15,617	838	5.4%
2002	10,943	11,201	2.4%	-56%	14,111	2,910	21%
2003	9,942	10,342	4.0%	-59%	12,485	2,143	17%
2004	9,953	10,134	1.8%	-60%	12,477	2,343	19%
2005	9,556	9,642	0.90%	-62%	12,484	2,842	23%
2006	9,166	9,152	-0.15%	-64%	12,486	3,334	27%
2007	8,742	8,794	0.59%	-65%	11,034	2,240	20%
2008	N/A	8,359	N/A	-67%	10,691	2,332	22%

¹ The RECLAIM universe is divided into two cycles with compliance schedules staggered by six months. Compliance years for Cycle 1 facilities run from January 1 through December 31 and Cycle 2 compliance years are from July 1 through June 30.

² Previously reported annual emissions are included from Compliance Year 2007 Annual RECLAIM Audit Report for purposes of comparison with the updated annual audited emissions.

³ Total RTCs = Allocations + Converted ERCs.

**Figure 3-1
NOx Emissions and Available RTCs**



During California’s energy crisis, power producing facilities operated at production levels significantly higher than their past operation levels which resulted in elevated emissions from the power producing sector. As stated in previous annual audit reports, aggregate NOx emissions for both Compliance Years 2000 and 2001 exceeded total RTC allocations for those two years. These aggregate emissions from the previous reports were based on both reported emissions data and audited data. However, based on this year’s effort to update all compliance years’ emissions with fully audited emission values, the resulting aggregate emissions show that only Compliance Year 2000 exceeded the annual programmatic allocations for NOx. As shown in Table 3-1, audited Compliance Year 2001 NOx emissions were below allocations by almost 1,000 tons. The reduction in Compliance Year 2001 aggregate NOx emissions was primarily caused by the exclusion of emissions from military technical support equipment at two RECLAIM facilities, which were initially included in the previously reported data. However, emissions from military technical support equipment in all compliance years were eventually excluded because California Health and Safety Code §41754(a)(3) specifies that these types of portable equipment are “not subject to any statewide or district emission control or emission limit.” No allocations were issued to facilities to account for emissions from military technical support equipment. As a result, no adjustment to allocations is warranted due to removal of emissions from this type of equipment.

Similar to Table 3-1 and Figure 3-1 for NOx, Table 3-2 presents aggregate annual SOx emissions data for each compliance year based on audited emissions, and Figure 3-2 compares these audited aggregate annual SOx emissions with the aggregate annual SOx RTC supply. RECLAIM facilities have not exceeded their SOx allocations on an aggregate basis in any Compliance

Year since program inception. The data indicates that RECLAIM met its programmatic SOx emission reduction goals and demonstrated equivalency in SOx emission reductions compared to the subsumed command-and-control rules and control measures. Based on updated emissions taken from audited data, annual SOx emissions have followed a general downward trend, except for slight increases in Compliance Years 1997, 2005 and 2007 when compared to their respective previous year. Typically, the reductions in SOx emissions resulted mainly from emission reduction projects (e.g., removal of sulfur compounds from feed streams and refinery fuel gas, and the use of catalysts to reduce SOx emissions) implemented at the area's refineries.

**Table 3-2
Annual SOx Emissions for Compliance Years 1994 through 2008**

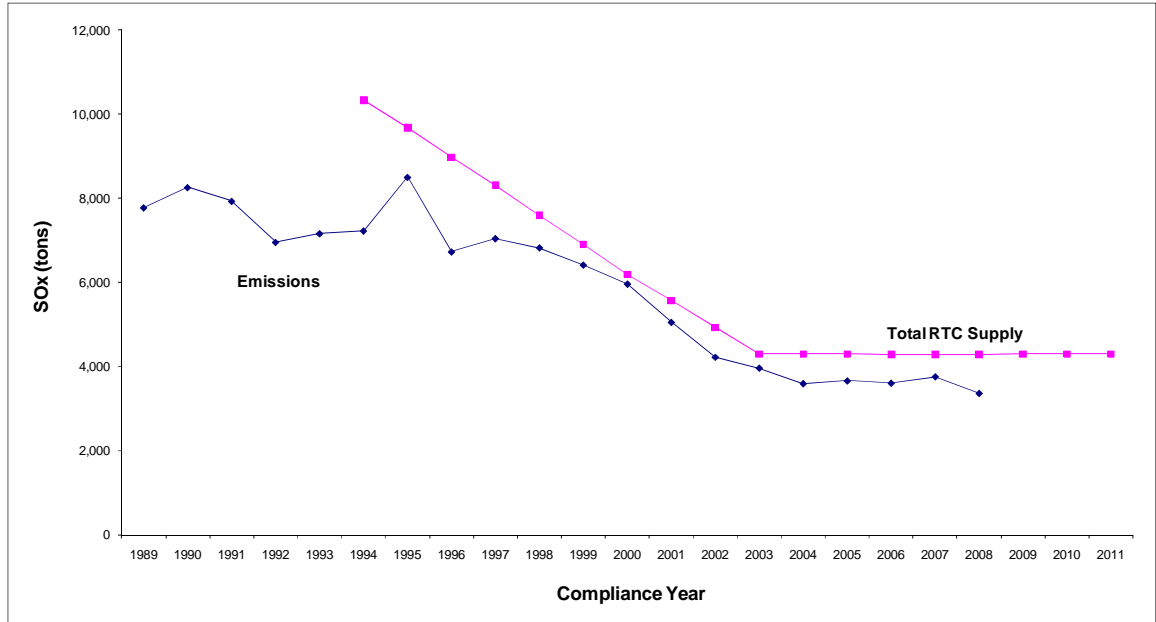
Compl. Year	Previously Reported Annual SOx Emissions^{1,2} (tons)	Audited Annual SOx Emissions (tons)	% Change from Previously Reported Emissions	% Change from 1994	Total SOx RTCs³ (tons)	SOx RTCs Left Over (tons)	SOx RTCs Left Over (%)
1994	7,232	7,230	-0.03%	0%	10,335	3,105	30%
1995	8,064	8,508	5.5%	18%	9,685	1,177	12%
1996	6,484	6,731	3.8%	-6.9%	8,976	2,245	25%
1997	6,464	7,048	9.0%	-2.5%	8,317	1,269	15%
1998	6,793	6,829	0.53%	-5.5%	7,592	763	10%
1999	6,378	6,420	0.66%	-11%	6,911	491	7.1%
2000	6,009	5,966	-0.72%	-17%	6,194	228	3.7%
2001	5,003	5,056	1.1%	-30%	5,567	511	9.2%
2002	4,374	4,223	-3.5%	-42%	4,932	709	14%
2003	3,855	3,968	2.9%	-45%	4,299	331	7.7%
2004	3,580	3,597	0.47%	-50%	4,299	702	16%
2005	3,621	3,663	1.2%	-49%	4,300	637	15%
2006	3,580	3,610	0.84%	-50%	4,282	672	16%
2007	3,750	3,759	0.24%	-48%	4,286	527	12%
2008	N/A	3,366	N/A	-53%	4,280	914	21%

¹ The RECLAIM universe is divided into two cycles with compliance schedules staggered by six months. Compliance years for Cycle 1 facilities run from January 1 through December 31 and Cycle 2 compliance years are from July 1 through June 30.

² Previously reported annual emissions are included from Compliance Year 2007 Annual RECLAIM Audit Report for purposes of comparison with the updated annual audited emissions.

³ Total RTCs = Allocations + Converted ERCs.

**Figure 3-2
SOx Emissions and Available RTCs**



Impacts from Power Producing Facilities

Tables 3-3 and 3-4² illustrate the impact of NOx emissions from the power producing facilities on the overall RECLAIM NOx allocations in Compliance Year 2000 and 2008, respectively. Although power producing facilities were initially allocated 1,506 tons of NOx RTCs for Compliance Year 2008 based on their historical operations, these facilities only reported 579 tons of NOx emissions in Compliance Year 2008. This level was over 6,100 tons (91%) below emissions from power producing facilities in Compliance Year 2000. The decrease in emissions was due to the installation of NOx control equipment at power producing facilities and a reduction in electricity generation. To a lesser extent, there was also an appreciable reduction in emissions from non-power producing facilities. Non-power producing facilities emitted 7,780 tons of NOx in Compliance Year 2008, which was 4,675 tons (38%) less than their emissions in Compliance Year 2000. In aggregate, annual NOx emissions in Compliance Year 2008 totaled 8,359 tons from RECLAIM facilities. This total is about 44% of the 19,148 tons of NOx emissions in Compliance Year 2000. Thus, both power producing and non-power producing sectors contributed to emission decreases between Compliance Years 2000 and 2008. In fact, this analysis for the past six annual audit reports has shown that since California’s energy crisis, there has been no abnormal impact on aggregate NOx emissions and overall RTC supply/demand from the power producing sector. As such, this analysis associated with Tables 3-3 and 3-4 will no longer be presented in future annual RECLAIM audit reports, unless warranted by future events.

² As with all emission data throughout this annual audit report, all NOx and SOx emission values in Tables 3-3 and 3-4 have been similarly updated to reflect audited emissions data only.

**Table 3-3
Impact of NOx Emissions from Power Producing Facilities on the Overall NOx Allocations for Compliance Year 2000**

	Compliance Year 2000				
	Non-Power Producing Facilities (a)		Power Producing Facilities (b)		All Facilities RTCs Held vs. Emissions (a) + (b)
	RTCs Held	Initial Allocations	RTCs Held	Initial Allocations	
Allocations [tons]	12,356	14,906	4,852	2,302	17,208
Emissions [tons]	12,455		6,693		19,148
Difference [tons] (Exceedance)	(99)	2,451	(1,841)	(4,391)	(1,940)

**Table 3-4
NOx Emissions and Allocations for Compliance Year 2008**

	Compliance Year 2008				
	Non-Power Producing Facilities (a)		Power Producing Facilities (b)		All Facilities RTCs Held vs. Emissions (a) + (b)
	RTCs Held	Initial Allocations	RTCs Held	Initial Allocations	
Allocations [tons]	9,614	9,185	1,077	1,506	10,691
Emissions [tons]	7,780		579		8,359
Difference [tons] (Exceedance)	1,834	1,405	498	927	2,332

Comparison to Command-and-Control Rules

RECLAIM subsumed a number of command-and-control rules³ and sought to achieve reductions equivalent to these subsumed rules. RECLAIM facilities are exempt from the subsumed rules' requirements that apply to SOx or NOx emissions once the facilities comply with the applicable monitoring requirements of Rules 2011 and 2012, respectively. During Compliance Year 2008, the following subsumed rules were amended: Rule 1110.2 – Emissions from Gaseous and Liquid-Fueled Engines, Rule 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters, and Rule 1146.1 – Emissions of Oxides of Nitrogen from

³ See Tables 1 and 2 of Rule 2001.

Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters. Additionally, two new NOx-related rules were adopted: Rule 1147 – NOx Reductions from Miscellaneous Sources and Rule 2449 – Control of Oxides of Nitrogen Emissions from Off-Road Diesel Vehicles. A summary of the NOx emission limit changes to these rules are shown in Table 3-5 below.

**Table 3-5
Summary of Subsumed Rules Amended in Compliance Year 2008**

Rule	Type of Equipment	Existing Limit (ppm)	New Limit (ppm)	Compliance Date
1110.2	Gaseous and Liquid-Fueled Engines [> 50 bhp]	36 [≥ 500 bhp] 45 [< 500 bhp]	11	July 1, 2011
1146	Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters [≥ 5 mmBtu/hr]	30 [Gaseous Fuels]	5 [≥ 75 mmBtu/hr]	Jan 2012 – Jan 2015
		40 [Non-Gaseous Fuels]	9 [< 75 mmBtu/hr]	
		12 [Atmospheric Units/ Non-Sealed Combustion]	9 [≤ 10 mmBtu/hr]	
1146.1	Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters [> 2 mmBtu/hr but < 5 mmBtu/hr]	30	9 [Natural Gas-Fired]	Jan 2012 – Jan 2014
			12 [Atmospheric Units/ Non-Sealed Combustion]	
1147	Miscellaneous External Combustion Sources	N/A	30, 40 or 60 [Gaseous Fuel-Fired]	Jan 2010 (new) Or
			40 or 60 [Liquid Fuel-Fired]	July 1, 2010 - Jul 1 st of year unit is 15 years old Or Combustion Modification (existing)

During the last round of periodic BARCT analysis for the RECLAIM program in January 2005, new lower emission limits for several categories of NOx equipment (Rule 2002, Table 3) were established to achieve NOx allocation reductions equivalent to command-and-control rules by 2011. Among the

categories listed in Table 3 are ones for Rule 1146 equipment⁴, Rule 1146.1 equipment⁵, and the category of “Ovens, Kilns, Calciners, Dryers, Furnaces.” As a result of this latest round of BARCT review, the NOx emission limit for Rules 1146 and 1146.1 equipment were lowered to 9 ppm and 12 ppm, respectively. The emission limit for the “Ovens, Kilns, Calciners, Dryers, Furnaces” category was further reduced to 30 ppm.

In comparison to the command-and-control limit of adopted Rule 1147, some of the equipment categories’ RECLAIM Tier I and Tier II ending factors are more stringent than the 40 ppm and 60 ppm limits of Rule 1147 and thus, meet the emissions limits established in Rule 1147. However, for existing equipment besides the “Ovens, Kilns, Calciners, Dryers, Furnaces” category, Rule 1147 requires compliance with 30 ppm by 2024, at the latest. This limit is more stringent for non-RECLAIM sources and will need to be addressed in the next round of BARCT review. Even though the provisions of Rule 1147 do not apply to equipment located at RECLAIM facilities, similar equipment located at RECLAIM facilities are subject to RECLAIM allocations which aggregately implement the same emission reduction goals.

Similarly, in comparing amended Rules 1146, 1146.1 and 1110.2 against the emission limits set forth in the January 2005 RECLAIM rule amendments, Rule 1146’s new 5 ppm limit for units ≥ 75 mm Btu/hr, Rule 1146.1’s new 9 ppm limit for sealed-combustion units, and Rule 1110.2’s new 11 ppm limit for stationary engines represent newer advances in control technology since the January 2005 BARCT analysis. As such, these more stringent NOx limits will need to be addressed in the next round of BARCT review.

Finally, in May 2008, Rule 2449 was adopted to incorporate by reference CARB’s In-Use Off-Road Diesel Vehicles Regulation [Article 48, Chapter 9, Title 13 of the California Code of Regulations (CCR), Section 2449.3 – Surplus Off-Road Opt-In for NOx (SOON) Program]. This Rule 2449 does not affect RECLAIM equipment because these mobile sources are programmatically excluded from the RECLAIM program.

Program Amendments

There were no new amendments to Regulation XX during calendar year 2008. However, in March of 2007, the USEPA issued the “Clean Air Fine Particle Implementation Rule,” which required non-attainment areas to meet particulate matter with aerodynamic diameter less than 2.5 microns (PM2.5) standards by 2010. The 2007 AQMP identified NOx and SOx reductions as the two most effective tools in reaching attainment with the PM2.5 standards. Consequently, the 2007 AQMP revision included both a formal request to extend USEPA’s PM2.5 attainment date to 2015, and Control Measure CMB-02 (“Further SOx Reductions for RECLAIM”), which estimated that implementation of SOx BARCT could achieve at least 3 tons per day SOx emission reductions from 2011 to 2014. In order to implement this control measure, AQMD is developing amendments to Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides

⁴ For purposes of this discussion, “Rule 1146 equipment” means “equipment that would be subject to Rule 1146 if not located at a RECLAIM facility.”

⁵ For purposes of this discussion, “Rule 1146.1 equipment” means “equipment that would be subject to Rule 1146.1 if not located at a RECLAIM facility.”

of Sulfur (SO_x). More detailed discussion of the proposed amendments to Rule 2002 can be found in Chapter 2 of this report.

Additionally, AQMD is considering proposing amendments to Rule 2005 – New Source Review for RECLAIM. In response to Governing Board Chairman Burke's "Helping Hand Initiative for 2009", staff is evaluating options to address the requirement under which facilities increasing the maximum hourly potential to emit of a source must hold RTC's sufficient to offset the annual emissions increase(s) resulting from the new or modified source(s) at the start of each and every compliance year. A more detailed discussion of this proposal is presented in Chapter 4 of this report.

Backstop Provisions

Rule 2015 requires that AQMD review the RECLAIM program and implement necessary measures to amend it whenever aggregate emissions exceed the aggregate allocations by five percent or more, or whenever the average annual price of RTCs exceeds \$15,000 per ton. Compliance Year 2008 aggregate NO_x and SO_x emissions were both below aggregate allocations as shown in Figures 3-1 and 3-2. At the same time, average annual prices for NO_x and SO_x RTCs in calendar year 2008 were below \$15,000 per ton, as shown in Chapter 2. Therefore, there is no need to initiate a program review.

Breakdowns

Pursuant to Rule 2004(i) – Breakdown Provisions, a facility may request that emissions in excess of normal emission levels due to a breakdown not be counted towards the facility's allocations. In order to qualify for such exclusion, the facility must demonstrate that the excess emissions were the result of a fire or a mechanical or electrical failure caused by circumstances beyond the facility's reasonable control. The facility must also take steps to minimize emissions resulting from the breakdown, and mitigate the excess emissions to the maximum extent feasible. Applications for exclusion of unmitigated breakdown emissions from a facility's total reported annual RECLAIM emissions must be approved by AQMD in writing. In addition, facilities are required to quantify unmitigated breakdown emissions, for which an exclusion request has been approved, in their APEP report.

As part of the annual audit report, Rule 2015(d)(3) requires AQMD to determine whether excess emissions approved for exclusion from securing RTCs to cover their emissions have been programmatically offset by unused RTCs within the RECLAIM program. If the breakdown emissions exceed the unused RTCs, any excess breakdown emissions must be offset by either: (1) deducting the amount of emissions not programmatically offset from the RTC holdings for the subsequent compliance year from facilities that had unmitigated breakdown emissions, proportional to each facility's contribution to the total amount of unmitigated breakdown emissions; and/or (2) RTCs obtained by the Executive Officer for the compliance year following the completion of the annual audit report in an amount sufficient to offset the unmitigated breakdown emissions.

As shown in Table 3-6, a review of APEP reports for the 2008 compliance year found that no facilities requested to exclude breakdown emissions from being

counted against their allocations. Thus, for Compliance Year 2008, no additional offset is required pursuant to Rule 2015(d)(3).

**Table 3-6
Breakdown Emission Comparison for Compliance Year 2008**

Emittant	Unmitigated Breakdown Emissions ¹ (tons)	Compliance Year 2008 Unused RTCs ² (tons)
NOx	0	2,332
SOx	0	914

¹ Data for unmitigated breakdown emissions (not counted against Allocation) as reported under APEP reports.

² Unused RTCs = RTC supply – Audited Emissions.

Impact of Changing Universe

As discussed in Chapter 1, changes to the NOx RECLAIM universe from July 1, 2008 to June 30, 2009 were: no facilities were included into RECLAIM, no facilities were excluded, and six facilities ceased operations. Staff conducted an analysis to evaluate the impact on emissions reductions due to these changes in the RECLAIM universe.

When a newly-constructed facility joins the RECLAIM universe, it is required to obtain sufficient RTCs to offset its NOx or SOx emissions. These RTCs must be obtained through the trading market and are not issued by AQMD to the facility. Such facilities increase the overall demand for the fixed supply of RTCs because they increase total RECLAIM emissions without increasing the total supply of RTCs. No newly-constructed facility was added to RECLAIM during Compliance Year 2008.

Facilities that were in operation prior to October 15, 1993 and are not categorically excluded may choose to enter the program even though they did not initially meet the inclusion criteria. They may also be included by AQMD if their facility-wide emissions increase to four tons or more per year of NOx or SOx or both. When one of these facilities enters the program, they are issued RTC allocations based on their operational history using the same methodology applied to facilities in the initial universe. Overall, inclusions shift the accounting of emissions from the universe of non-RECLAIM sources to the universe of RECLAIM sources without actually changing the overall emissions inventory. Inclusions also change the rules and requirements that apply to the affected facilities. There were no facilities that were in operation prior to October 15, 1993 that chose to opt-in to the RECLAIM program during Compliance Year 2008 and none were included into the RECLAIM program based on the Rule 2001 threshold of actual NOx and/or SOx emissions greater than or equal to four tons.

Facilities that commenced operation on or after October 15, 1993 as non-RECLAIM facilities can either choose to enter RECLAIM or are included due to actual NOx or SOx emissions in excess of four tons or more per year. These facilities are not issued RTCs based on operational history except for those

credits converted and issued based on external offsets provided by the facility. Therefore, they must obtain sufficient RTCs through the trading market to offset their NOx or SOx emissions. There were no such facilities during Compliance Year 2008.

The shutdown of a RECLAIM facility results in a reduction in actual emissions. The shutdown facility retains its RTC holdings, which it may continue to hold as an investment, transfer to another facility under common ownership, or trade on the market. Therefore, although the facility is no longer emitting, its RTCs may be used at another facility. Shutdown facilities have the opposite effect on the RTC market as do new facilities: the overall demand for RTCs is reduced while the supply remains constant. Six NOx-only RECLAIM facilities shut down permanently during Compliance Year 2008.

A facility is excluded from the RECLAIM universe if AQMD staff determines that the facility was included in the program in error. In such cases, both the emissions and the RTCs that were issued to the facility for future years are withdrawn, thereby having a neutral impact on the RTC supply. No facilities were excluded in Compliance Year 2008.

In short, new facilities and shutdown facilities change the demand for RTCs without changing the supply, while exclusions of existing facilities make corresponding changes to both the demand and the supply, thereby mitigating their own impact on the markets and shifting emissions between the RECLAIM and non-RECLAIM universes. Finally, inclusions of existing facilities most likely will affect demand more than supply because even though these facilities are issued RTC allocations based on their operational history, the amount, in many cases, is not enough to offset their current operations.

Compliance Year 2008 NOx and SOx emissions and initial allocations for facilities that were included into the program, were shutdown, or were excluded are summarized in Tables 3-7 and 3-8.

**Table 3-7
NOx Emissions Impact from the Changes in Universe (Tons)**

Category	Compliance Year 2008 NOx Emissions (tons)	Compliance Year 2008 NOx Initial Allocations (tons)
Shutdown Facilities	2.4	29.8
Excluded Facilities	Not applicable	Not applicable
Included Facilities*	Not applicable	Not applicable
RECLAIM Universe	8,359	10,691

* Represents only facilities that had RTC holdings, then shutdown, and eventually decided to re-start operations.

Table 3-8
SOx Emissions Impact from the Changes in Universe (Tons)

Category	Compliance Year 2008 SOx Emissions (tons)	Compliance Year 2008 SOx Initial Allocations (tons)
Shutdown Facilities	Not applicable	Not applicable
Excluded Facilities	Not applicable	Not applicable
Included Facilities*	Not applicable	Not applicable
RECLAIM Universe	3,366	4,280

* Represents only facilities that had RTC holdings, then shutdown, and eventually decided to re-start operations.

CHAPTER 4

NEW SOURCE REVIEW ACTIVITY

Summary

The annual program audit assesses New Source Review (NSR) activity from RECLAIM facilities in order to ensure that RECLAIM is complying with federal NSR requirements and state no net increase (NNI) in emissions requirements, while providing flexibility to facilities in managing their operations and allowing new sources into the program. In Compliance Year 2008, no new facility joined either or both the RECLAIM NO_x and/or the RECLAIM SO_x markets, fifteen NO_x RECLAIM facilities had NSR NO_x emission increases due to expansion or modification, and no existing SO_x RECLAIM facility had NSR SO_x emission increases due to expansion or modification. The consistent trend of surplus NO_x and SO_x RTCs over emissions for the past five years has allowed for expansion and modification by existing facilities. However, it has become apparent that due to accumulating RTC hold requirements, this may no longer be the case. As a result, potential changes to Rule 2005 are being considered to facilitate expansion and modification of operations by existing facilities that are already in RECLAIM.

RECLAIM is required to comply with federal NSR requirements at a 1.2-to-1 offset ratio for NO_x emission increases and at least at a 1-to-1 offset ratio for SO_x emission increases on a programmatic basis. In Compliance Year 2008, RECLAIM provided an offset ratio of 300-to-1 for NO_x, demonstrating federal equivalency. Demonstrating an offset ratio for SO_x is not required for this compliance year since there were no NSR SO_x emission increases. Compliance with the federally-required offset ratio also demonstrates compliance with the state NNI requirements for new or modified sources. In addition, RECLAIM requires application of Best Available Control Technology (BACT) for all new or modified sources with emission increases.

Background

Emissions increases from the construction of new or modified stationary sources in non-attainment areas are regulated by both federal NSR and state no net increase (NNI) requirements to ensure that progress toward attainment of ambient air quality standards is not hampered. RECLAIM is designed to comply with federal NSR and state NNI requirements without hindering a facility's ability to expand or modify its operations¹.

Title 42, United States Code §7511a, paragraph (e), requires major sources in extreme non-attainment areas to offset emission increases of extreme nonattainment pollutants and their precursors at a 1.5-to-1 ratio based on potential to emit. However, if all major sources in the extreme non-attainment

¹ Federal NSR applies to federal major sources (sources with potential to emit 10 tons of NO_x or 100 tons of SO_x per year for the South Coast Air Basin) and state NNI requirements apply to all NO_x sources and to SO_x sources with the potential to emit at least 15 tons per year in the South Coast Air Basin. RECLAIM's NSR provisions apply to all facilities in the program.

area are required to implement federal BACT, a 1.2-to-1 offset ratio may be used. Federal BACT is comparable to California's BARCT. AQMD requires all major sources to employ federal BACT/California BARCT and, therefore, is eligible for a 1.2-to-1 offset ratio for ozone precursors (*i.e.*, NO_x and volatile organic compounds [VOC]s). The federal offset requirement for major SO₂ sources is at least a 1-to-1 ratio, which is lower than the aforementioned 1.2-to-1 ratio. SO₂ is not currently a non-attainment pollutant in the basin. However, SO_x is a precursor to PM₁₀ which is a nonattainment air pollutant. The applicable offset ratio for PM₁₀ is at least 1-to-1. Health and Safety Code §40920.5 requires "no net increase in emissions from new or modified stationary sources of nonattainment pollutants or their precursors" (*i.e.*, a 1-to-1 offset ratio on an actual emissions basis). All actual emissions are offset at a 1-to-1 ratio, thus satisfying state NNI requirements of SO_x or NO_x. Annual RTC allocations follow a programmatic reduction to reflect changes in BARCT and thereby comply with federal and state goals for attainment.

RECLAIM requires California BACT/federal Lowest Achievable Emission Rate (LAER) for new or modified sources with emissions increases of RECLAIM pollutants. This provision complies with both the state and federal requirements regarding control technologies for new or modified sources. In addition to offset and BACT requirements, RECLAIM subjects RTC trades that are conducted to mitigate emissions increases over the sum of the facility's starting allocation and non-tradable credits to trading zone restrictions to ensure net ambient air quality improvement within the sensitive zone established by Health and Safety Code §40410.5. Furthermore, facilities with actual RECLAIM emissions that exceed their initial allocation by 40 tons per year or more are required to analyze the potential impact of their emissions increases through modeling.

Rule 2005 – New Source Review for RECLAIM requires RECLAIM facilities to provide, when permits to operate are issued, sufficient RTCs to offset the annual increase in potential emissions for the first year of operation at a 1-to-1 ratio. After the first year of operation, the same rule also requires RECLAIM facilities to provide sufficient RTCs to offset the annual potential emissions from newly permitted equipment at a 1-to-1 ratio at the commencement of each compliance year. Although RECLAIM allows a 1-to-1 offset ratio for emissions increases, RECLAIM complies with the federal offset requirement by complying with the 1.2-to-1 offset requirement for NO_x on an aggregate basis. The annual reductions of aggregate allocations generate sufficient excess emissions reductions to mitigate the difference between the emissions offset ratio required by RECLAIM and the higher offset ratios required under federal law for NO_x. Similarly, provided aggregate RECLAIM emissions do not exceed aggregate allocations for a specific RECLAIM pollutant, RECLAIM inherently complies with the state's NNI requirement on a programmatic basis.

This annual audit report assesses NSR permitting activities for the 2008 compliance year to verify that programmatic compliance of RECLAIM with federal and state NSR requirements has been maintained.

NSR Activity

Compliance Year 2008 NSR activities were much lower than previous compliance years likely due to the economic downturn. Evaluation of NSR data

for Compliance Year 2008 shows that RECLAIM facilities expanded or modified their operations while complying with NSR requirements. During Compliance Year 2008, fifteen existing RECLAIM facilities triggered NSR provisions and had a total of 7.8 tons per year of NO_x emission increases due to expansion or modification. No existing SO_x RECLAIM facilities had modifications or added new processes that could increase their SO_x emissions. As in previous years, there were adequate unused RTCs in the RECLAIM universe for perusal by new entrants into the program and for existing facilities to expand or increase productions. However, there were no new entrants into RECLAIM.

NSR Compliance Demonstration

RECLAIM is designed to comply with the federal NSR offset requirements. Meeting the NSR requirement (offset ratio of 1.2-to-1 for NO_x and at least 1-to-1 for SO_x) also demonstrates compliance with the state NNI requirements. Section 173 (c) of the federal Clean Air Act (CAA) states that only emissions reductions beyond the requirements of the CAA, such as federal Reasonably Available Control Technology (RACT), shall be considered creditable as emissions reductions for offset purposes. Since the initial allocations (total RTC supply in Compliance Year 1994) already met federal RACT requirements when the program was initially implemented, any emissions reductions beyond the initial allocations are available for NSR offset purposes until RACT becomes more stringent. The programmatic offset ratio calculations presented in the Annual RECLAIM Audit Reports for Compliance Years 1994 through 2004 have relied upon aggregate Compliance Year 1994 allocations as representing RACT. However, staff recognizes that RACT may have become more stringent in the intervening years, so it may no longer be appropriate to calculate the programmatic offset ratio based upon aggregate 1994 allocations. Aggregate allocations for each compliance year represent federal BACT, which is equivalent to local BARCT. Federal BACT is more stringent than federal RACT (*i.e.*, the best available control technology is more stringent than what is reasonably available), so staff started using current allocations (federal BACT) as a surrogate for RACT as the basis for calculating programmatic NO_x and SO_x offset ratios in the annual audit report for Compliance Year 2005 and is continuing to do so for NO_x in this report. This is a more conservative (*i.e.*, more stringent) approach than using actual RACT and is much more conservative than using aggregate Compliance Year 1994 allocations. The advantage of this approach is that, as long as the calculated NO_x offset ratio is at least 1.2-to-1, it provides certainty that RECLAIM has complied with federal and state offset requirements without the need to know exactly where RACT lies for RECLAIM facilities. However, if this approach should ever fail to demonstrate that the aggregate NO_x offset ratio for any year is at least 1.2-to-1, that will not necessarily mean RECLAIM has not actually complied with the federally required 1.2-to-1 NO_x offset ratio. Rather it will indicate that further analysis is required to accurately identify RACT so that the actual offset ratio can be calculated and a compliance determination made.

Provided aggregate RECLAIM emissions do not exceed aggregate allocations, all RECLAIM emissions are offset at a ratio of 1-to-1. This leaves all unused allocations available to provide offsets beyond the 1-to-1 ratio for NSR emission increases. Unused allocations are based on all Cycle 1 and Cycle 2 RTCs of a

given compliance year and the aggregate RECLAIM emissions for the selected time period. The NSR emission increase is the sum of emission increases due to permit activities at all RECLAIM facilities during the same compliance year. The aggregate RECLAIM offset ratios are expressed by the following formula:

$$\text{Offset Ratio} = \left(1 + \frac{\text{compliance year's total unused allocations}}{\text{total NSR emission increases}} \right)\text{-to-1}$$

The Compliance Year 2008 NOx programmatic offset ratio calculated from this methodology is 300-to-1:

$$\begin{aligned} \text{Offset Ratio} &= \left(1 + \frac{2,332 \text{ tons}}{7.8 \text{ tons}} \right)\text{-to-1} \\ &= 300\text{-to-1} \end{aligned}$$

RECLAIM continues to generate sufficient excess emissions reductions to provide greater than 1.2-to-1 offset ratio for NOx as required by federal law. This compliance with the federal offset requirements is built into the RECLAIM program through annual reductions of the allocations assigned to RECLAIM facilities and the subsequent allocation adjustments adopted by the Governing Board to implement BARCT. On the other hand, the required offset ratio for SOx is 1-to-1. Since RECLAIM facilities are required to secure at a minimum adequate RTCs to cover their actual emissions, the offset ratio is met automatically provided there is no programmatic exceedance of aggregate SOx allocations for that compliance year. Therefore, a separate calculation of the SOx offset ratio is not necessary. Furthermore, as mentioned above, there were no SOx NSR emission increases during Compliance Year 2008. Therefore, there is no need to programmatically demonstrate that SOx RECLAIM complied with federal offset requirements during the 2008 compliance year.

BACT and modeling are also required for any RECLAIM facility that installs new equipment or modifies existing sources if the installation or modification results in an increase in emissions of RECLAIM pollutants. Furthermore, the RTC trading zone restrictions in Rule 2005 – New Source Review for RECLAIM, limit trades conducted to offset emission increases over the sum of the facility's starting allocation and non-tradable credits to ensure net ambient air quality improvement within the sensitive zone, as required by state law.

The result of the review of the NSR activity in Compliance Year 2008 shows that RECLAIM is in compliance with both state NNI and federal NSR requirements. AQMD will continue to monitor NSR activity under RECLAIM in order to assure continued progress toward attainment of ambient air quality standards without hampering economic growth in the Basin.

Modeling Requirements

Rule 2004 as amended in May 2001, requires RECLAIM facilities with actual NOx or SOx emissions exceeding their initial allocation in Compliance Year 1994 by 40 tons per year or more to conduct modeling to analyze the potential impact

of the increased emissions. The modeling analysis is required to be submitted within 90 days of the end of the compliance year. For Compliance Year 2008, one RECLAIM facility was found to be subject to this requirement. This facility exceeded its Compliance Year 1994 NO_x allocation by at least 40 tons. The facility submitted modeling analysis which showed that the facility's NO_x emission complied with the most stringent ambient air quality standard for NO_x set forth in Rule 2005, Appendix A.

Possible Amendments to New Source Review for RECLAIM

To help local businesses prosper without adversely impacting air quality, Chairman Burke of AQMD's Governing Board introduced his "Helping Hand Initiative for 2009" at the January 9, 2009 Board Meeting. One element of this Initiative is to provide enhanced customer service to permit applicants and permit holders, including revising the RTC hold requirement described below to make it less burdensome for facilities while continuing to comply with the requirements of federal NSR and state NNI.

As discussed above, Rule 2005 requires RECLAIM facilities that have experienced an emissions increase, to hold sufficient RTCs at the beginning of each compliance year equal to the increase in its maximum potential emissions. The evaluation of emission increases is performed on a device-by-device basis, so any time a new NO_x- or SO_x-emitting RECLAIM device is installed it triggers the RTC hold requirement, regardless if the new device is replacing an older device and is lower-emitting than the one it replaced. Therefore, as time goes on, the aggregate quantity of emission increases, and the associated aggregate hold requirement, continues to grow even as aggregate emissions decline. Therefore, there is concern that facilities may find themselves unable to modernize simply because they will not be able to obtain sufficient RTCs to satisfy the hold requirement at the beginning of a compliance year due to the built-in decreasing allocations, even if the net impact of their modernization effort will be a reduction in RECLAIM emissions. It is also noted that the amount of RTCs required to be held is equal to the maximum potential emission level. This also creates an artificially high demand on RTCs at the beginning of a compliance year because actual emissions are always less than maximum potential to emit. As a result, AQMD has initiated discussion with USEPA and CARB to explore potential solutions to this issue.

CHAPTER 5 COMPLIANCE

Summary

There were 292 NOx and 32 SOx active facilities in the RECLAIM program at the start of the 2008 compliance year. During the 2008 compliance year, six facilities in the NOx universe ceased operations and shutdown. There were no changes in the SOx universe. Of these 292 active NOx RECLAIM facilities during the 2008 compliance year, 276 facilities (95%) complied with their NOx allocations, and all but one of the 32 SOx facilities (97%) complied with their SOx allocations. The 16 NOx facilities that exceeded their NOx allocations had aggregate NOx emissions in excess of their combined NOx allocations by a total of 16.1 tons, whereas, the one SOx facility exceeded its SOx allocation by 2.8 tons. These amounts are relatively small compared to the overall allocations for the compliance year (0.15% of NOx and 0.07% of SOx allocations). The overall RECLAIM NOx and SOx emission goals were met for Compliance Year 2008 (i.e., aggregate emissions were below aggregate allocations).

Background

RECLAIM facilities have the flexibility to choose among compliance options to meet their annual allocations, by either trading RTCs or reducing emissions. However, this flexibility must be supported by standardized emission monitoring, reporting, and recordkeeping (MRR) requirements to ensure the reported emissions are real, quantifiable, and enforceable. As a result, specific and detailed MRR protocols are specified in the RECLAIM regulation to guarantee accurate and verifiable emission reports.

The MRR requirements were designed to provide accurate and up-to-date emission reports. Once facilities install and complete certification of the required monitoring and reporting equipment, they are relieved from command-and-control rule limits and requirements. Mass emissions from RECLAIM facilities are then determined directly by monitoring and reporting equipment for some sources and from data generated by monitoring equipment for others. If monitoring equipment fails to produce quality-assured data or the facility fails to file timely emissions reports, RECLAIM rules require emissions be determined by a rule-prescribed methodology known as Missing Data Procedures (MDP). Depending on past performance of the monitoring equipment (i.e., availability of quality-assured data), MDP use a tiered approach to calculate emissions. As availability of quality-assured data increases, the MDP-calculated emissions become more representative of the actual emissions, but when the availability of quality-assured data is low, MDP calculations approach “worst case” assessments.

Allocation Compliance

Requirements

At the beginning of the RECLAIM program in 1994, each RECLAIM facility received an annual allocation for each compliance year. For an existing facility new to the program, annual allocations are issued according to the same methodology used for those facilities that were included at the start of the program. However, a facility without an operating history prior to 1994 receives no allocation and must purchase enough RTCs to cover the emissions for their operations, except facilities that have provided ERCs to offset emission increases prior to entering RECLAIM. These facilities are issued RTCs equivalent to the amount of offsets provided on an annual basis. Knowing their emission goals, RECLAIM facilities have the flexibility to manage their emissions in order to meet their allocations in the most cost-effective manner. Facilities may buy RTCs to increase their allocations, sell unneeded RTCs, or employ emission control technology to further curtail emissions.

At the end of the reconciliation period for each quarter and each compliance year, a RECLAIM facility must hold sufficient RTCs in its allocation account to cover its quarterly as well as year-to-date emissions for the compliance year. Facilities may buy or sell RTCs at any time during the year in order to ensure that their emissions are covered. In addition, at the end of each compliance year, there is a 60-day reconciliation period during which facilities have a final opportunity to buy or sell RTCs for that year. By the end of each quarterly and annual reconciliation period, each facility is required to certify the emissions for the preceding quarter and compliance year by submitting its QCERs and APEP report, respectively.

Compliance Audit

Since the beginning of the program, AQMD has conducted annual audits of all emission reports submitted by RECLAIM facilities to ensure their integrity and reliability. The audit process includes conducting field inspections to check process equipment, monitoring devices, operational records, and emissions calculations in order to verify emissions reported electronically to AQMD or submitted in QCERs and APEP reports. These inspections revealed that some facilities made errors in quantifying their emissions, such as arithmetic errors, used inappropriate emission factors, or used MDP inappropriately. Therefore, some of the reported emissions in the QCER or APEP reports were adjusted upon completion of the audits.

Whenever an audit revealed a facility's emissions to be in excess of its annual allocation, the facility was provided an opportunity to review the audit and to present additional data to further refine audit results. Emissions data are ensured to be valid and reliable through this extensive and rigorous audit process.

Compliance Status

As stated in Chapter 3, at the time of writing each of the previous annual audit reports, not all of facility audits were completed for that compliance year. As

such, that year's compliance status was based on QCER or APEP data when audited data was not available. In the Compliance Year 2007 Annual RECLAIM Audit Report, staff committed to update and present the compliance status of all years based on the results of AQMD facility audits. As a result of this effort, all compliance data presented in this report is based on audited rather than a combination of audited and reported emissions data.

At the beginning of Compliance Year 2008, there were 292 NO_x RECLAIM facilities and 32 SO_x facilities. As stated in Chapter 1, the only changes were in the NO_x RECLAIM universe where six facilities ceased operations during Compliance Year 2008. Based on audit results, enforcement action was taken on 16 facilities for exceeding their NO_x allocations and one facility for exceeding its SO_x allocation. Of these 17 facilities, 14 facilities exceeded their allocations in Compliance Year 2008 because they failed to secure sufficient RTCs to cover their reported emissions during either the quarterly or annual year-to-date reconciliation periods. Three of these 14 facilities had additional reasons for exceedance such as incorrectly calculating fuel usage or using incorrect emission factors. Of the remaining three facilities, one facility exceeded its allocation because non-major source MDP was applied due to invalid fuel usage records as well as the facility failed to account for emissions from equipment that are exempt from obtaining AQMD permit pursuant to Rule 219. Another facility exceeded its allocation because the facility failed to apply major source MDP to a period where its Continuous Emissions Monitoring System (CEMS) NO_x analyzer was not certified. The last facility exceeded its allocation because non-major source MDP was applied due to invalid fuel usage records as well as major source MDP was applied to days when the facility transmitted its daily electronic emissions late and to days when the CEMS became uncertified due to required re-certification test (also known as Relative Accuracy Test Audit, or RATA) being late. This corresponded to an overall allocation compliance rate of 95% (276 out of 292 facilities) for NO_x RECLAIM facilities and 97% (31 out of 32 facilities) for SO_x RECLAIM facilities. The amounts of emissions from these facilities in excess of their individual allocations totaled to 16.1 tons of NO_x and 2.8 tons of SO_x (0.15% of aggregate NO_x and 0.07% of aggregate SO_x allocations).

For comparison purposes, data from previous annual reports are included in parenthesis in Table 5-1. These data were the results at the time previous annual reports were compiled and when some of the audits were not reported. As expected, the number of facilities that violated their allocations and the resultant aggregate amount of emissions in excess of individual facility allocations increased after all audits are completed. It is important to point out that despite these increases, the overall compliance with RECLAIM NO_x and SO_x emission goals did not change; they were met for all years except only for NO_x emissions during Compliance Year 2000.

Table 5-1 summarizes audit results of emissions in excess of individual facility allocations and the count of facilities which exceeded their allocations in comparison with the previously reported excess emission and facility counts by compliance year.

**Table 5-1
Summation of Individual Facilities' Emissions in Excess of Annual Allocations ¹**

Compliance Year	NOx Amount. ² (tons)	SOx Amount. ² (tons)	Facility Count ²
1994	546.7 (N/R)	44.4 (N/R)	38 (46)
1995	1,389.7 (N/R)	394.5 (N/R)	42 (28)
1996	2,743.1 (N/R)	476.1 (N/R)	45 (49)
1997	288.0 (N/R)	73.0 (N/R)	22 (19)
1998	229.5 (N/R)	0.0 (N/R)	31 (27)
1999	402.9 (N/R)	11.0 (N/R)	66 (31)
2000	1,140.0 (1,089)	16.1 (0)	74 (41)
2001	235.0 (16)	14.7 (0)	35 (15)
2002	160.7 (55)	18.6 (4)	49 (9)
2003	134.4 (8)	15.2 (0)	47 (10)
2004	146.0 (58)	4.5 (0)	30 (13)
2005	64.7 (6.5)	4.5 (0)	34 (5)
2006	32.6 (14.7)	3.0 (2.7)	28 (13)
2007	44.5 (34.5)	70.2 (57.9)	26 (19)
2008	16.1	2.8	17

¹ This table totals by compliance year individual facilities' aggregate emissions in excess of their annual allocations.

² Annual allocation exceedance amounts (NOx and SOx) and Facility Counts from previously reported Compliance Year Annual RECLAIM Audit Reports are included in parentheses for purposes of comparison with the updated annual audited emissions. Note: "N/R" is listed in parentheses for information not included in previous annual reports.

For this Compliance Year 2008 Annual RECLAIM Audit Report and for the purposes of updating audit results, Appendix D lists the facilities that AQMD determined to have exceeded their annual allocations for all compliance years (back to 1994). However, for all subsequent annual audit reports and similar to previous reports, only facilities that fail to reconcile by securing RTCs to cover their emissions for the subject compliance year will be listed.

Impact of Missing Data Procedures

MDP was designed to provide a method for determining emissions when an emission monitoring system fails to yield valid emissions. For major sources, these occurrences may be caused by failure of the monitoring systems or of the Data Acquisition and Handling System (DAHS). Major sources are also required to use MDP for determining emissions whenever daily emissions reports are not submitted by the applicable deadline. When comparing actual emissions with a facility's use of substituted MDP emissions, the range of MDP emissions can vary from "more representative" to emissions being overstated to reflect a "worst case" scenario. For instance, an MDP "worst case" scenario may occur for major sources that fail to have their CEMS certified in a timely manner, and therefore, have no valid CEMS data that can be used in the substitution. In other cases, where prior CEMS data is available, MDP is applied in tiers depending on the duration of missing data periods and the availability of monitoring systems. As the duration of missing data periods gets shorter and the historical availability of

monitoring systems gets higher, the substitute data yielded by MDP becomes more representative of actual emissions.

In addition to MDP for major sources, RECLAIM rules also define MDP for large sources and process units. These procedures are applicable when a process monitoring device fails or when a facility operator fails to record process rates or fuel usage. The resulting MDP emissions reports are reasonably representative of the actual emissions because averaged or maximum emissions from previous operating periods may be used. However, for extended missing data periods (more than two months for large sources or greater than four quarters for process units) or when emissions data for the preceding year are unavailable, large source and process unit MDP are also based on worst case assumptions.

Based on APEP reports, 86 NOx facilities and 9 SOx facilities used MDP in reporting their annual emissions during Compliance Year 2008. In terms of mass emissions, 7.6% of the total reported NOx emissions and 7.5% of the total reported SOx emissions in the APEP reports were calculated using MDP for Compliance Year 2008. Table 5-2 compares the impact of MDP on reported annual emissions for the last few compliance years compared to the second compliance year, 1995 (MDP was not fully implemented during the 1994 compliance year).

**Table 5-2
MDP Impact on Annual Emissions**

Emittant	Percent of Reported Emissions Using Substitute Data ¹							
	1995	2002	2003	2004	2005	2006	2007	2008
NOx	23.0% (65/6,070)	3.4% (85/363)	4.5% (87/443)	8.3% (106/824)	3.0% (88/359)	2.5% (48/220)	5.6% (78/489)	7.6% (86/625)
SOx	40.0% (12/3,403)	4.8% (14/208)	4.7% (15/181)	10.4% (16/373)	3.6% (15/161)	0.0% (0/0)	7.0% (14/262)	7.5% (9/242)

¹ Numbers in parenthesis that are separated by a forward slash represent the number of facilities that reported use of MDP in each compliance year and tons of emissions based on MDP.

As indicated in Table 5-2, the current impact of MDP on reported emissions is near the high end, but within the range of recent years. In most of the cases where MDP was used, the substituted data were representative of actual emissions, as explained below.

Most of the issues associated with CEMS certifications were resolved prior to the 1999 compliance year. Since then, very few facilities have had to submit emissions reports based on the worst case scenario under MDP, which may considerably overstate the actual emissions from major sources. As an example, most facilities that reported emissions using MDP in 1995 did so because they did not have their CEMS certified in time to report actual emissions. Since their CEMS had no prior data, MDP called for an application of the most conservative procedure to calculate substitute data by assuming continuous uncontrolled operation at the maximum rated capacity of the facility's equipment, regardless of the actual operational level during the missing data periods. As a result, the

calculations yielded substitute data that may have been much higher than the actual emissions. In comparison to the 65 NO_x facilities implementing MDP in Compliance Year 1995, 86 facilities reported NO_x emissions using MDP in Compliance Year 2008. Even though the number of facilities is higher, the percentage of emissions reported using MDP during Compliance Year 2008 is much lower. Since most CEMSs were certified and had been reporting actual emissions by the beginning of the 2000 compliance year, facilities that had to calculate substitute data were able to apply less conservative methods of calculating MDP for systems with high availability and shorter duration of missing data periods. Therefore, the substitute data they calculated for their missing data periods were more likely to be representative of the actual emissions.

It is important to note that portions of annual emissions attributed to MDP include actual emissions from the sources as well as the possibility of overestimated emissions. As shown in Table 5-2, approximately 7.6% of NO_x annual emissions were calculated using MDP in Compliance Year 2008. MDP may significantly overestimate emissions from sources that operate intermittently and have low monitoring system availability, and/or lengthy missing data periods. Even though a portion of the 7.6% may be overestimated emissions due to conservative MDP, a significant portion (or possibly all) of it could have been actual emissions from the sources. Unfortunately, the portion that represents the actual emissions cannot be readily estimated because the extent of this effect varies widely, depending on source categories and operating parameters, as well as the tier of MDP applied. As an example, refineries tend to operate at maximum capacity for 24 hours per day and seven days per week, except for scheduled shutdowns for maintenance and barring major breakdowns or other unforeseeable circumstances. Therefore, missing data emissions calculated for such facilities could be more reflective of the actual emissions than those calculated for facilities that do not operate on a continuous basis but, due to low data availability, are required to calculate MDP based upon continuous operation.

For Compliance Year 2008, a significant portion of NO_x and SO_x MDP emissions data (68% each) were reported by refineries. As mentioned before, these reported emissions are more likely to be actual emissions instead of overstated emissions due to the continuous nature of refinery operations.

Emissions Monitoring

Overview

The reproducibility of reported RECLAIM facility emissions—and thereby the enforceability of the RECLAIM program—is assured through a three-tiered hierarchy of MRR requirements. A facility's equipment falls into a MRR category based on the kind of equipment it is and on the level of emissions produced or potentially produced by the equipment. RECLAIM divides all NO_x sources into major sources, large sources, process units, and equipment exempt pursuant to Rule 219. All SO_x sources are divided into major sources, process units, and equipment exempt pursuant to Rule 219. Table 5-3 shows the monitoring requirements applicable to each of these categories.

Table 5-3
Monitoring Requirements for RECLAIM Sources

Source Category	Major Sources (NO _x and SO _x)	Large Sources (NO _x only)	Process Units and Rule 219 Equipment (NO _x and SO _x)
Monitoring Method	Continuous Emission Monitoring System (CEMS)	Fuel Meter or Continuous Process Monitoring System (CPMS)	Fuel Meter, Timer, or CPMS
Reporting Frequency	Daily	Monthly	Quarterly

Continuous Emission Monitoring System (CEMS)

Requirements

CEMSs represent both the most accurate and the most reliable method for continuously monitoring all of the parameters necessary to directly determine mass emissions of NO_x and SO_x, as well as the most costly method. These attributes make CEMSs the most appropriate method for the largest emission-potential equipment in the RECLAIM universe, major sources, which are relatively few in number but represent a majority of the total emissions from all equipment.

Alternatives to CEMSs, or Alternative Continuous Emission Monitoring System (ACEMS), are allowed under the RECLAIM regulation. These are devices that do not directly monitor NO_x or SO_x mass emissions; instead, they correlate multiple process parameters to arrive at mass emissions. To be approved for RECLAIM MRR purposes, ACEMS must be determined by the AQMD to be equivalent to CEMS in relative accuracy, reliability, reproducibility, and timeliness.

Compliance Status

By the end of calendar year 1999, almost all facilities that were required to have CEMSs had their CEMSs certified or provisionally approved. The only remaining uncertified CEMSs are for sources that recently became subject to major source reporting requirements and sources that modified their CEMS. It is expected that there will be a few new major sources each year. Therefore, there will continue to be a small number of CEMSs in the certification process at any time. There are no longer any CEMSs that have been in the certification process for a significant length of time and that have been delayed due to unusual circumstances.

Standing Working Group on RECLAIM CEMS Technical Issues

CEMS technical issues, which delayed certification of many CEMSs, arose over the course of RECLAIM implementation. To address these issues and further assist facilities in complying with major source monitoring requirements, a Standing Working Group (SWG) on RECLAIM CEMS Technical Issues was

formed to provide a forum in which facility representatives, consultants and AQMD staff could discuss and work out technically-sound and reasonable solutions to CEMS issues. In the past, the SWG met quarterly to discuss progress and also bring up new issues. However, since existing issues have been resolved and new issues are infrequent, the SWG currently is only convened as necessary.

Semiannual and Annual Assessments of CEMSs

RECLAIM facilities conduct their RATA of certified CEMSs using private sector testing laboratories approved under the AQMD Laboratory Approval Program (LAP). These tests are conducted either semiannually or annually, depending on the most recent relative accuracy value (the sum of the average differences and the confidence coefficient) for each source. The interval is annual only when all required relative accuracies obtained during an audit are 7.5% or less (*i.e.*, more accurate).

To verify the quality of CEMSs, the RATA report compares the CEMS data to data taken simultaneously, according to approved testing methods (also known as reference methods), by a LAP-approved source testing contractor. The relative accuracy performance requirements for the RATAs are ±20% for pollutant concentration, ±15% for stack flow rate, and ±20% for pollutant mass emission rate (the product of concentration and stack flow rate). The RATAs also determine whether CEMS data must be adjusted for low readings compared to the reference method (bias adjustment factor), and by how much. The RATA presents two pieces of data, the CEMS bias (how much it differs from the reference method on the average) and the CEMS confidence coefficient (how variable that bias or average difference is).

Tables 5-4 and 5-5, respectively, summarize the 2008 and 2009 calendar years' passing rates for RATAs of certified CEMSs for NOx and SOx concentration, total sulfur in fuel gas concentrations, stack flow rate (in-stack monitors and F-factor based calculations), and NOx and SOx mass emissions. However, the tables do not include SOx mass emissions calculated from total sulfur analyzer systems because such systems serve numerous devices, and therefore are not suitable for mass emissions-based RATA testing.

Table 5-4
Passing Rates Based on Relative Accuracy Test Audits of Certified CEMSs in 2008¹

Concentration						Stack Flow Rate				Mass Emissions			
NOx		SO ₂		Total ² Sulfur		In-Stack Monitor		F-Factor Based Calc.		NOx		SOx ³	
No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass
403	100	59	100	22	100	51	100	381	100	403	100	59	100

¹ All passing rates calculated from data submitted before January 2, 2009 and may exclude some data from the 4th quarter of calendar year 2008.

² Includes Cylinder Gas Audit (CGA) tests.

³ Does not include SOx emissions calculated from total sulfur analyzers.

Table 5-5
Passing Rates Based on Relative Accuracy Test Audits of Certified CEMSs in 2009¹

Concentration						Stack Flow Rate				Mass Emissions			
NOx		SO ₂		Total ² Sulfur		In-Stack Monitor		F-Factor Based Calc.		NOx		SOx ³	
No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass
340	100	72	100	17	100	45	100	322	100	340	100	51	100

¹ All passing rates calculated from data submitted before January 8, 2010 and may exclude some data from the 4th quarter of calendar year 2009.

² Includes Cylinder Gas Audit (CGA) tests.

³ Does not include SOx emissions calculated from total sulfur analyzers.

As indicated in Tables 5-4 and 5-5, the passing rates for NOx/SO₂ concentration, stack flow rate, and mass emissions were high. Since the inception of RECLAIM there have been significant improvements with respect to the availability of reliable calibration gas, the reliability of the reference method, and an understanding of the factors that influence valid total sulfur analyzer data.

Electronic Data Reporting of RATA Results

Facilities operating CEMSs under RECLAIM are required to submit RATA results. Traditionally, these results are presented in formal source test reports. AQMD, with help of the SWG, set up an electronic reporting system, known as Electronic Data Reporting (EDR), to allow RATA results to be submitted on diskettes or by electronic mail using a standardized format. This system minimizes the amount of material the facility must submit to AQMD and also facilitates the RATA review process. With this added option, many facilities have employed the EDR system to report RATA results, which has helped the AQMD expedite the review process. About 95 percent of RATA results were submitted using EDR in calendar year 2008 and 2009.

Non-Major Source Monitoring, Recordkeeping, and Reporting

Emissions quantified for large sources are primarily based on a concentration limit or an emission rate specified in the Facility Permit. Other variables used in the calculation of large source emissions are dependent on the specific process of the equipment, but generally include fuel usage, applicable dry F-factor, and the higher heating value of the fuel used. RECLAIM requires large sources to be source tested within defined three-year windows in order to validate the equipment's concentration limit or emission rate. Since emissions are fuel-based, the monitoring equipment required to quantify emissions is a non-resettable fuel meter that must be corrected to standard temperature and pressure. Large source emission data must be submitted electronically on a monthly basis.

Process unit emission calculations are similar to those of large sources in that emissions are quantified using either the fuel-based calculations for a concentration limit or an emission factor specified in the Facility Permit. Similar to large sources, variables used in emission calculations for process units are

dependent on the equipment's specific process, but generally include fuel usage, applicable dry F-factor, and the higher heating value of the fuel used. Process units that are permitted with concentration limits are also required to be source-tested, but within specified five-year windows. Emissions for equipment exempt under Rule 219 are quantified using emission factors and fuel usage. No source testing is required of equipment exempt under Rule 219. Since emissions are fuel-based for both process units and equipment exempt under Rule 219, the monitoring equipment required to quantify emissions is a non-resettable fuel meter, corrected to standard temperature and pressure. Process units and equipment exempt under Rule 219 must submit emission reports electronically on a quarterly basis.

Emissions Reporting

Requirements

RECLAIM is designed to take advantage of electronic reporting technology to streamline reporting requirements for both facilities and AQMD, and to help automate compliance-tracking. Under RECLAIM, facilities report their emissions electronically on a per device basis to AQMD's Central Station computer as follows:

- Major sources must use a Remote Terminal Unit (RTU) to telecommunicate emission data to the AQMD Central Station. The RTU collects data, performs calculations, generates the appropriate data files, and transmits the data to the Central Station. This entire process is required to be performed by the RTU without human intervention.
- Emission data for all equipment other than major sources may be transmitted via RTU or compiled manually and transmitted to the Central Station via modem. Alternatively, since January 2005, the existing AQMD internet based application, Web Access To Electronic Reporting System (WATERS), was upgraded to allow RECLAIM facilities to transmit emission data for these sources via internet connection. The data may be transmitted directly by the facility or through a third party.

Compliance Status

The main concern for emission reporting is the timely submittal of daily reports from major sources. If daily reports are not submitted by the specified deadlines, RECLAIM rules may require that emissions from CEMSs be ignored and the emissions be calculated using MDP. Daily emission reports are submitted by the RTU of the CEMS to the AQMD Central Station via telephone lines. Often communication errors between the two points are not readily detectable by facility operators. Undetected errors can cause facility operators to believe that daily reports were submitted when they were not received by the Central Station. In addition to providing operators a means to confirm the receipt of their reports, the WATERS application can also display electronic reports that were submitted to, and received by, the Central Station. This system helps reduce instances where MDP must be used for late or missing daily reports, because the operators

can verify that the Central Station received their daily reports, and can resubmit them if there were communication errors.

Protocol Review

Even though review of MRR protocols was only required by Rule 2015(b)(1) for the first three compliance years of the RECLAIM program, staff continues to review the effectiveness of enforcement and MRR protocols. Based on such review, appropriate revisions to the protocols may be needed to achieve improved measurement and enforcement of RECLAIM emission reductions, while minimizing administrative costs to AQMD and RECLAIM participants.

Since the RECLAIM program was adopted, staff has produced rule interpretations and implementation guidance documents to clarify and resolve specific concerns about the protocols raised by RECLAIM participants. In situations where staff could not interpret existing rule requirements to adequately address the issues at hand, the protocols and/or rules have been amended. During calendar year 2008, there were no new amendments to Regulation XX. However, as discussed earlier in Chapter 3 of this report, AQMD has initiated the amendment process to amend Rule 2002 – Allocations for Oxides of Nitrogen (NO_x) and Oxides of Sulfur (SO_x) and implement Control Measure CMB-02 (“Further SO_x Reductions for RECLAIM”), which estimated that implementation of SO_x BARCT could achieve at least 3 tons per day SO_x emission reductions from 2011 to 2014. More detailed discussions of the proposed amendments to Rule 2002 can be found in Chapter 2 of this report. Additionally, potential amendments are being considered for Rule 2005 – New Source Review for RECLAIM. A more detailed description of the possible amendments to Rule 2005 is presented in Chapter 4 of this report.

Finally, with respect to rule interpretations and implementation guidance documents, a Compliance Advisory (dated November 13, 2009) was mailed to all RECLAIM facilities with major sources as well as CEMS vendors to clarify the rules’ requirement for calculating the mass emission rate for RECLAIM major sources. The advisory re-iterated that mass emission rate calculation is to be conducted at the 15-minute level and that the mass emission rate for each 15-minute period is the product of that period’s average stack flow value (the average of all valid stack flow data obtained from the stack flow analyzer in that 15-minute period) and that period’s average concentration value (the average of all valid concentration data obtained from the concentration analyzer in that 15-minute period). The deadline to make any changes to CEMS DAS/RTU software to comply with this Compliance Advisory is either of (a) the facility’s first 2010 RATA due date for each major source, or (b) March 31, 2010, whichever is later. Furthermore, once the changes are implemented, major source emissions must be recalculated back to January 1, 2010 using the corrected software.

CHAPTER 6

REPORTED JOB IMPACTS

Summary

According to the Compliance Year 2008 employment survey, the RECLAIM program had no impact on jobs at more than 98.6 % of the facilities. RECLAIM facilities reported a net loss of 315 jobs, representing 0.29% of their total employment. Most of these losses were attributed to factors other than RECLAIM. Six RECLAIM facilities were listed as shutdown during Compliance Year 2008. None of these facilities reported on their Annual Permit Emissions Program (APEP) report that RECLAIM was a contributing factor in their decision to close. Two facilities (0.69% of the RECLAIM universe) reported a combined loss of 139 jobs due to RECLAIM, whereas two other facilities (0.69% of the RECLAIM universe) reported a total of three jobs gained. Job losses and job gains are strictly based on RECLAIM facilities' reported information. However, AQMD staff has reviewed information available to AQMD for one facility which reported a major portion of the jobs lost (136) due to RECLAIM. The facility has been in the RECLAIM program for the last 15 years, has had relatively steady emissions and adequate RTC allocations to cover its emissions in the last several years, and was not a structural buyer. Based on this, it can be concluded that the facility would most likely have had enough RTCs to cover its future emissions. Therefore, the AQMD could not identify any specific reason why the RECLAIM program would have caused the job losses reported by this facility.

Background

The APEP reports submitted by RECLAIM facilities include survey forms that are used to evaluate the socioeconomic impacts of the program. Facilities were asked to indicate on the forms the number of jobs at the beginning of Compliance Year 2008 and any changes that took place in each of three categories: manufacturing, sale of products, and non-manufacturing. The number of jobs gained and lost in each category during the compliance year was tabulated on the basis of data reported by facilities.

Additionally, the APEP reports ask facilities that shutdown during Compliance Year 2008 to provide the reasons for their closure. The APEP reports also allow facilities to indicate whether the RECLAIM program led to the creation or elimination of jobs during Compliance Year 2008. Those facilities that reported a change in the number of jobs due to RECLAIM were asked to specify the number of jobs lost or gained, and to state why the job loss or creation was attributed to RECLAIM.

Since data regarding job impacts and facility shutdowns are derived from the APEP reports, the submittal of these reports are essential in assessing the influence that the RECLAIM program has on these issues. The following discussion represents data obtained from APEP reports submitted to AQMD and clarifying information collected by AQMD staff. AQMD has no way to verify that the reported job impacts from RECLAIM facilities are real rather than perceived.

Job Impacts

Table 6-1 summarizes job impact data gathered from Compliance Year 2008 APEP reports and follow-up telephone interviews. It should be noted that the total number of facilities reporting job gains or losses does not equal the sum of the number of facilities reporting job changes in each category (*i.e.*, the manufacture, sales of products, and non-manufacture categories) due to the fact that some facilities may report changes under more than one of these categories. A total of 125 facilities reported 13,483 job gains, while 162 facilities reported a total of 13,798 job losses. Net job losses were reported in the sale of products (53) and the non-manufacturing (3,955) categories. A net gain of 3,693 jobs was reported in the manufacturing category. Though Table 6-1 shows net losses in two of the three categories, the total net loss of 315 jobs represents a net decrease only 0.29% at RECLAIM facilities during Compliance Year 2008.

Table 6-1
Job Impacts at RECLAIM Facilities for Compliance Year 2008

Description	Manufacture	Sale of Products	Non-Manufacture	Total
Initial Jobs	49,570	910	58,399	108,879
Overall Job Gain	9,041	93	4,349	13,483
Overall Job Loss	5,348	146	8,304	13,798
Final Jobs	53,263	857	54,444	108,564
Net Job Change	3,693	-53	-3,955	-315
Percent Net Job Change	7%	-6%	-7%	-0.29%
Facilities Reporting Job Gains	88	26	76	125
Facilities Reporting Job Losses	133	34	95	162

Appendix C identifies six RECLAIM facilities that shutdown during Compliance Year 2008. Of the six facilities that reported shutting down their manufacturing operations during Compliance Year 2008, one facility shut down due to declining demand for their products and high manufacturing costs, and another two facilities exclusively cited declining demand for their products as the reason behind shutting down. Two other facilities shut down due to operations being consolidated in other plants in California and the last facility shut down because the capacity of the plant was no longer needed to support that portion of the manufacturer's product line.

Four facilities reported job impacts attributed to the RECLAIM program (refer to Appendix E). One facility declared a loss of 136 jobs and cited RECLAIM compliance costs as the reason for putting them at competitive disadvantage compared to other facilities including their own sister company located outside of California. However, AQMD staff has reviewed information available to AQMD for this facility and found that the facility has been in the RECLAIM program for the last 15 years, has had relatively steady emissions and adequate RTC allocations to cover its emissions in the last several years, and was not a structural buyer. Based on this, it can be concluded that the facility would most likely have had enough RTCs to cover its future emissions. Therefore, the AQMD could not identify any specific reason why the RECLAIM program would have caused the job losses reported by this facility. Another facility cited a loss

of three jobs, as the facility had to choose between cutting RECLAIM costs and cutting jobs in order to reduce overall costs. Since RECLAIM costs could not be cut, the facility had to eliminate the jobs. Two facilities reported a total gain of three jobs due to RECLAIM. One facility added two jobs to meet the monitoring, reporting and recordkeeping, as well as additional maintenance requirements of the RECLAIM program, whereas, the other facility added one job to have greater scheduling flexibility.

It should be noted that this analysis of socioeconomic impacts based on APEP reports and follow-up interviews is focused exclusively on changes in employment that occurred at RECLAIM facilities. The effect of the program on the local economy outside of RECLAIM facilities, including consulting and source testing jobs, is not considered.

It is not possible to compare the impact of the RECLAIM program on the job market *vis-à-vis* a scenario without RECLAIM. This is because factors other than RECLAIM (e.g., the current economic downturn), also impact the job market. Based on the current year and past few years of data collected from RECLAIM facilities, the job gains or losses attributed only to RECLAIM comprise a very small percentage of the total number of jobs lost or gained in that period. Furthermore, there is no way to compare job impacts attributed to RECLAIM to job impacts attributed to command and control rules that would have been adopted in RECLAIM's absence, because these command and control rules don't exist. As mentioned in the previous paragraph, the effect of the RECLAIM program on the local economy outside of RECLAIM facilities (e.g., generating jobs for consulting firms, source testing firms and CEMS vendors) are not considered in this report.

CHAPTER 7

AIR QUALITY AND PUBLIC HEALTH IMPACTS

Summary

Audited RECLAIM emissions have been in an overall downward trend since the program's inception. Compared to the previous compliance year, NO_x and SO_x emissions in Compliance Year 2008 continued their downward trend (reduced by five percent and ten percent when compared to Compliance Year 2007, respectively). Quarterly calendar year 2008 NO_x emissions ranged from approximately four percent below to four percent above the mean NO_x emissions for the year. Quarterly calendar year 2008 SO_x emissions ranged from approximately nine percent below to eleven percent above the year's mean SO_x emissions. There was no significant shift in seasonal emissions from the winter season to the summer season. Furthermore, based upon Compliance Year 2008 analysis of the geographical distribution of emissions on a quarterly basis, there is no distinct shift in the geographical distribution of emissions.

The California Clean Air Act (CCAA) required a 50% reduction in population exposure to ozone, relative to a baseline averaged over three years (1986 through 1988), by December 31, 2000. Analysis of per capita exposure (the length of time each person is exposed) to ozone in 1998 and 2000 shows that the Basin achieved the December 2000 target for ozone well before the deadline. In fact, Los Angeles County, Orange County, and the South Coast Air Basin overall achieved compliance with the December 2000 target prior to 1994, and Riverside and San Bernardino Counties achieved compliance in 1996. In calendar year 2009, the per capita exposure to ozone continued to be well below the target set for December 2000.

Air toxic health risk is primarily caused by emissions of certain volatile organic compounds (VOCs) and metals, rather than NO_x or SO_x emissions; RECLAIM facilities are subject to the same air toxic, VOC, and solid and condensable particulate matter regulations as other sources in the Basin. Therefore, it can be concluded that the RECLAIM program creates no increased toxic impact beyond what would have occurred with the rules and control measures RECLAIM subsumed.

Background

RECLAIM is designed to achieve the same, or higher level of, benefits in terms of air quality and public health as would have been achieved from implementation of the control measures and command-and-control rules that RECLAIM subsumed. Therefore, as a part of each annual program audit, AQMD evaluates per capita exposure to air pollution, toxic risk reductions, emission trends, and seasonal fluctuations in emissions. AQMD also generates quarterly emissions maps depicting the geographic distribution of RECLAIM emissions. This chapter addresses:

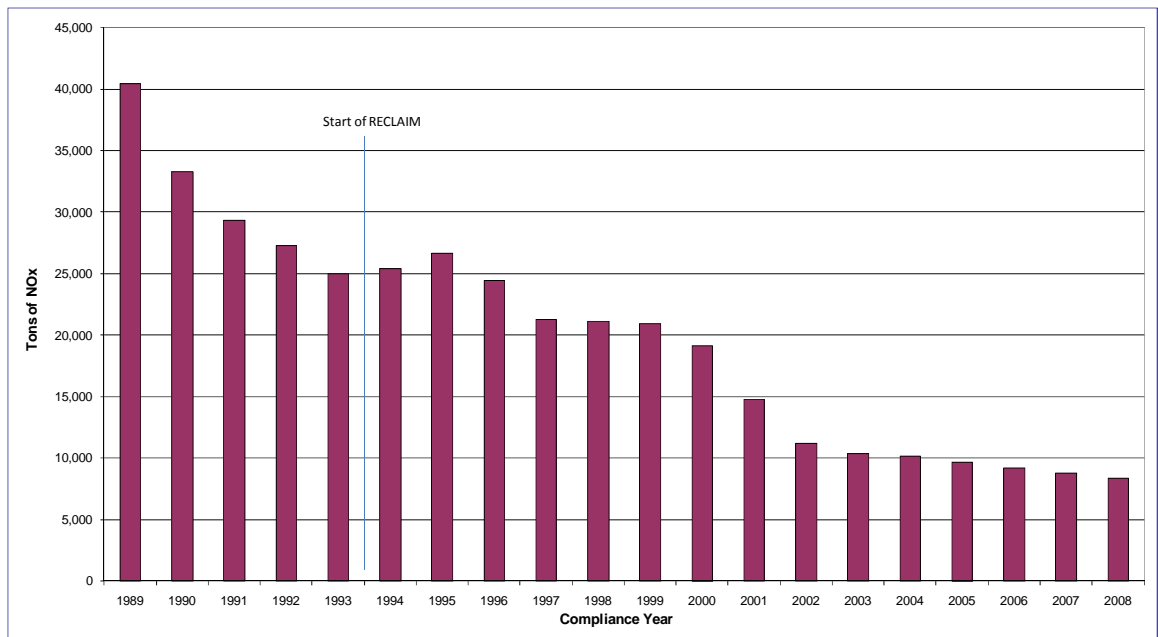
- Emission trends for RECLAIM facilities;
- Seasonal fluctuations in emissions;

- Geographic patterns of emissions;
- Per capita exposure to air pollution; and
- Toxics impacts.

Emission Trends for RECLAIM Sources

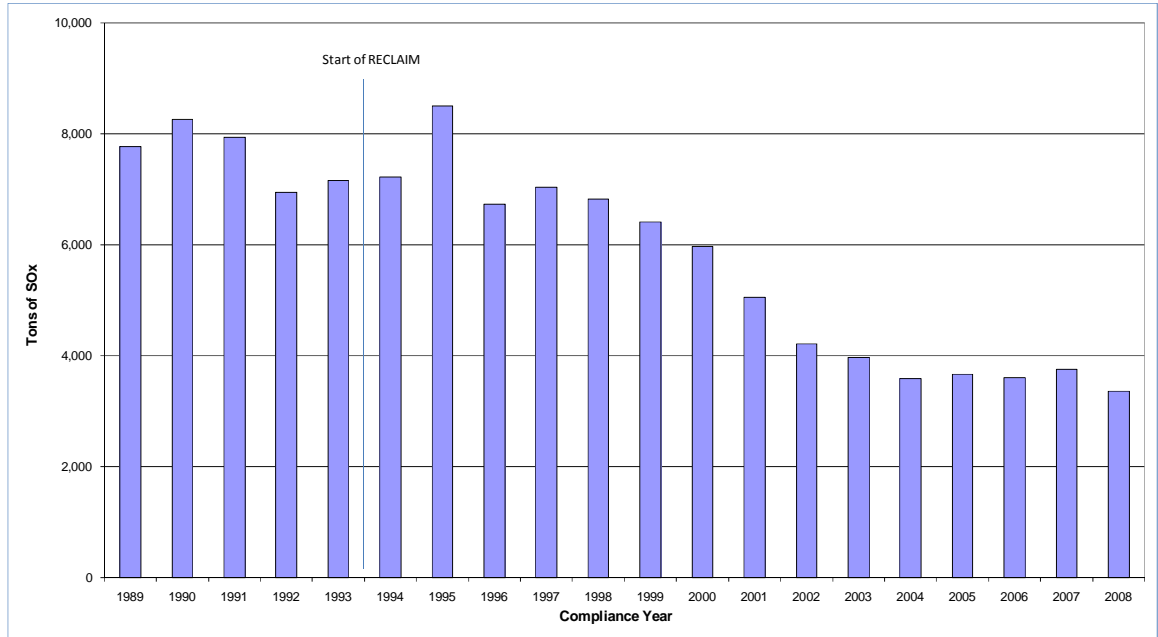
Concerns were expressed during program development that RECLAIM might cause sources to increase their aggregate emissions during the early years of the program due to perceived over-allocation of emissions. In Figures 7-1 and 7-2 that show NOx and SOx emissions from RECLAIM sources since 1989, the analysis of emissions from RECLAIM sources indicates that in fact, the reverse is true. Overall, RECLAIM emissions have been in a downward trend since program inception. Compliance Year 2008 NOx emissions were five percent lower than they were in Compliance Year 2007, while SOx emissions were ten percent lower.

Figure 7-1
NOx Emission Trend for RECLAIM Sources



Note: 1989-1993 emissions presented in this figure are the emissions from the facilities in the 1994 NOx universe.

Figure 7-2
SOx Emission Trend for RECLAIM Sources



Note: 1989-1993 emissions presented in this figure are the emissions from the facilities in the 1994 SOx universe.

NOx emissions have decreased every year since 1995. Since 1995, annual SOx emissions have also followed a general downward trend, except for slight increases in 1997, 2005 and 2007 when compared to their respective previous year.

The increase in NOx emissions from Compliance Year 1994 to 1995 can be attributed to the application of MDP at the onset of RECLAIM implementation. At RECLAIM’s adoption in 1993, facilities with major sources were allowed to report emissions (interim reporting) for their first year in the program by quantifying emissions using an emission factor and fuel throughput. This interim period allowed major sources the time to certify their CEMSs. However, many facilities with major sources had difficulties in certifying their CEMSs by the end of the interim period, and consequently, reported emissions using MDP during Compliance Year 1995. As discussed in Chapter 5, since CEMSs for these major sources had no prior data, MDP required the application of the most conservative procedure to calculate substitute data by assuming continuous operation at the maximum rated capacity, regardless of the actual operational level during missing data periods. As a result, the application of MDP during this time period yielded substitute data that may have been much higher than the actual emissions. Overall, the figures clearly show that RECLAIM facilities did not increase their aggregate emissions during the earlier years of the program, dispelling the concerns about increased emissions in the early years.

Seasonal Fluctuation in Emissions for RECLAIM Sources

During program development, another concern was that RECLAIM might cause facilities to shift emissions from the winter season into the summer ozone season, thus exacerbating poor air quality. To address this concern, AQMD staff analyzed quarterly audited emissions during calendar year 2008 and compared them with quarterly audited emissions for prior years to assess if there had been such a shift in emissions. This analysis is reflected in Figures 7-3, 7-4, 7-5, and 7-6.¹

Figure 7-3 shows the 2008 mean quarterly NOx emissions, which is the average of the aggregate emissions for each of the four quarters, versus the 2008 actual quarterly emissions and Figure 7-4 compares the 2008 quarterly NOx emissions with the quarterly emissions from 2002 through 2007. During Calendar Year 2008, aggregate quarterly NOx emissions varied from about four percent below the mean in the fourth quarter (October through December) to about four percent above the mean in the first quarter (January through March). Although Figure 7-3 shows that emissions during the summer of 2008 were slightly higher than the annual average, the peak quarterly NOx emissions in 2008 actually occurred in the first quarter. Furthermore, Figure 7-4 shows that the spring, summer, and fall quarters of 2008 had the lowest aggregate RECLAIM NOx emissions of any spring, summer, or fall, respectively, to date and there was only one prior year (2007) with lower aggregate RECLAIM NOx emissions in the fall quarter. Additionally, the 2008 quarterly aggregate NOx emissions profile is similar to the corresponding profiles for several other recent years. These two figures together show that the RECLAIM program has not caused a significant shift in NOx emissions from the winter season into the summer season and that, although aggregate RECLAIM NOx emissions in 2008 were lower than in previous years, the 2008 seasonal emissions profile was consistent with previous years.

¹ Data used to generate these figures were derived from audited data. Similar figures in previous annual reports were generated from a combination of audited and reported data available at the time the reports were written.

Figure 7-3
Calendar Year 2008 NOx Quarterly Emissions

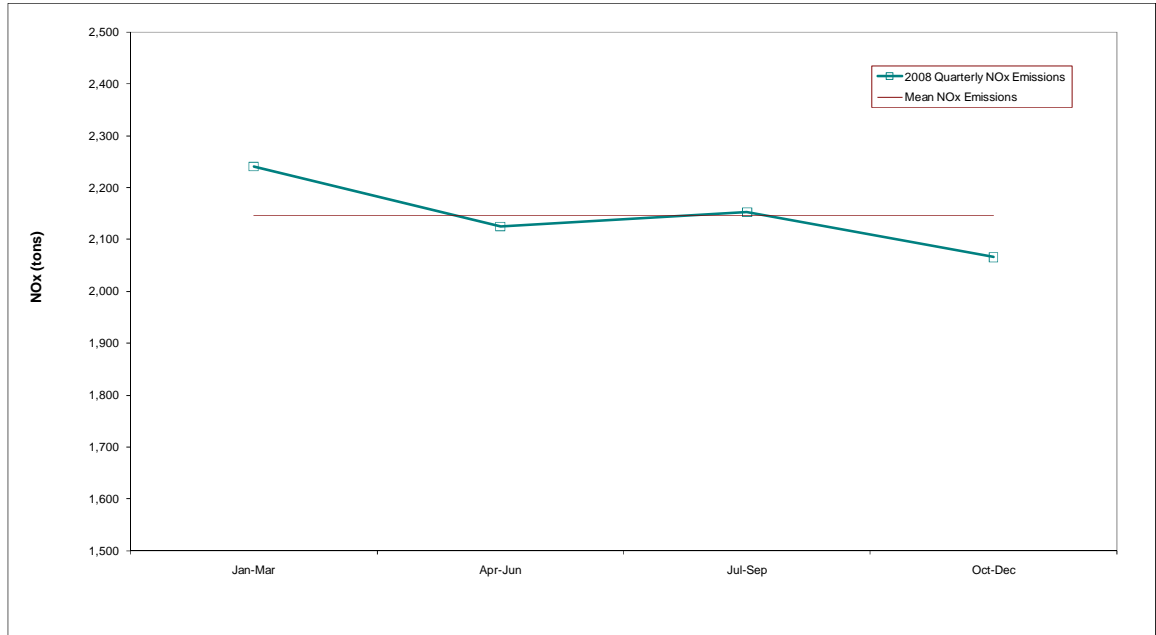


Figure 7-4
Quarterly NOx Emissions from Calendar Years 2002 through 2008

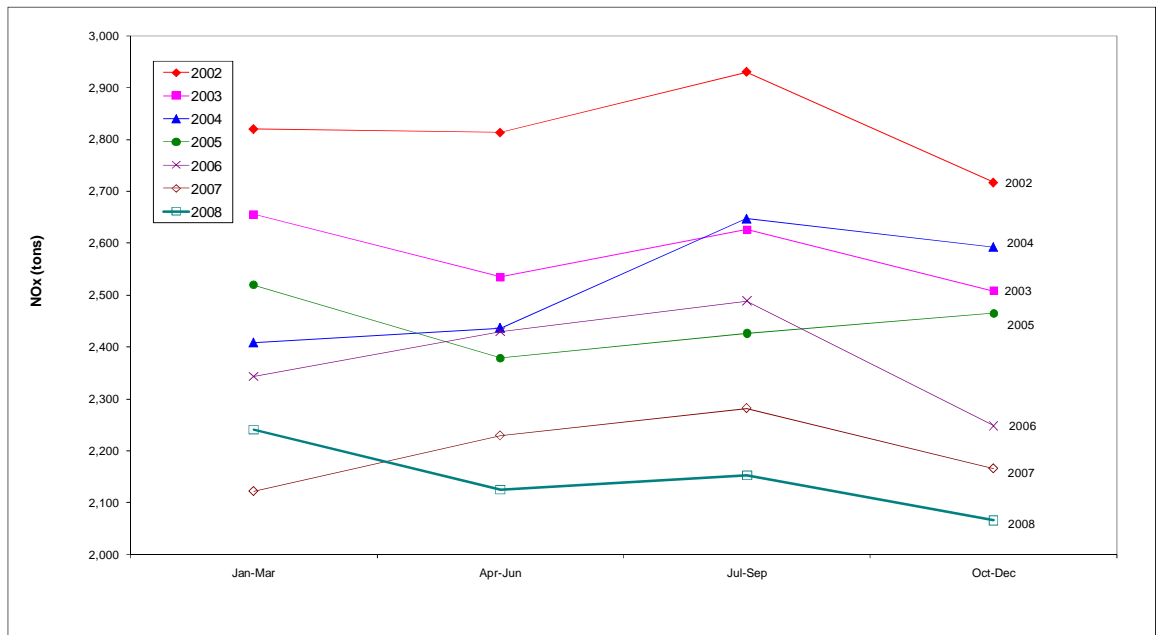


Figure 7-5 presents the 2008 mean quarterly SOx emissions versus the 2008 actual quarterly emissions and Figure 7-6 compares the 2008 quarterly SOx emissions with the quarterly emissions from 2002 through 2007. Figure 7-5 shows that quarterly SOx emissions during calendar year 2008 varied from nine

percent below the mean in the fourth quarter (October through December) to eleven percent above the mean in the second quarter (April through June). Figure 7-6 reveals that the 2008 quarterly aggregate SOx emissions profile was similar to those for previous years, but the spring quarter peak was larger as a percentage of the mean quarterly SOx emissions than for previous years. The eleven percent peak above the mean in the second quarter was mainly caused by a major equipment renovation project (*i.e.*, turnaround) that resulted in increased SOx emissions from a large refinery. This analysis shows that the RECLAIM program has not caused a significant shift in SOx emissions from the winter season into the summer season and that the 2008 seasonal emissions profile was consistent with previous years, although the magnitude of the peak in spring quarter emissions above other quarters for the year was larger than in previous years, primarily due to a major renovation project which has now been completed.

Figure 7-5
Calendar Year 2008 SOx Quarterly Emissions

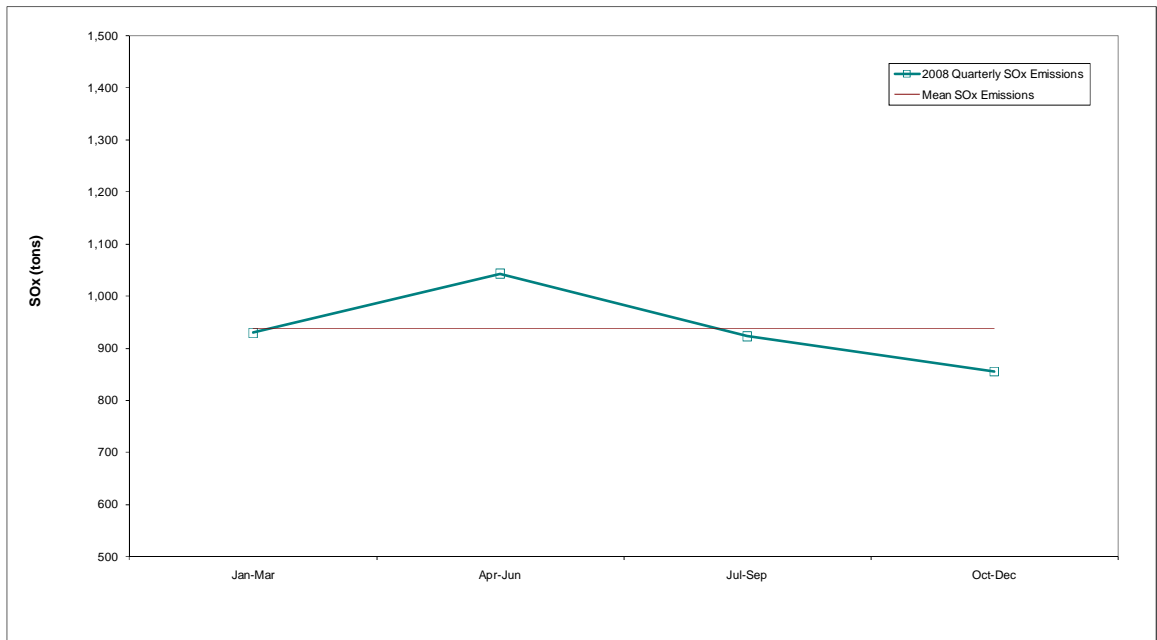
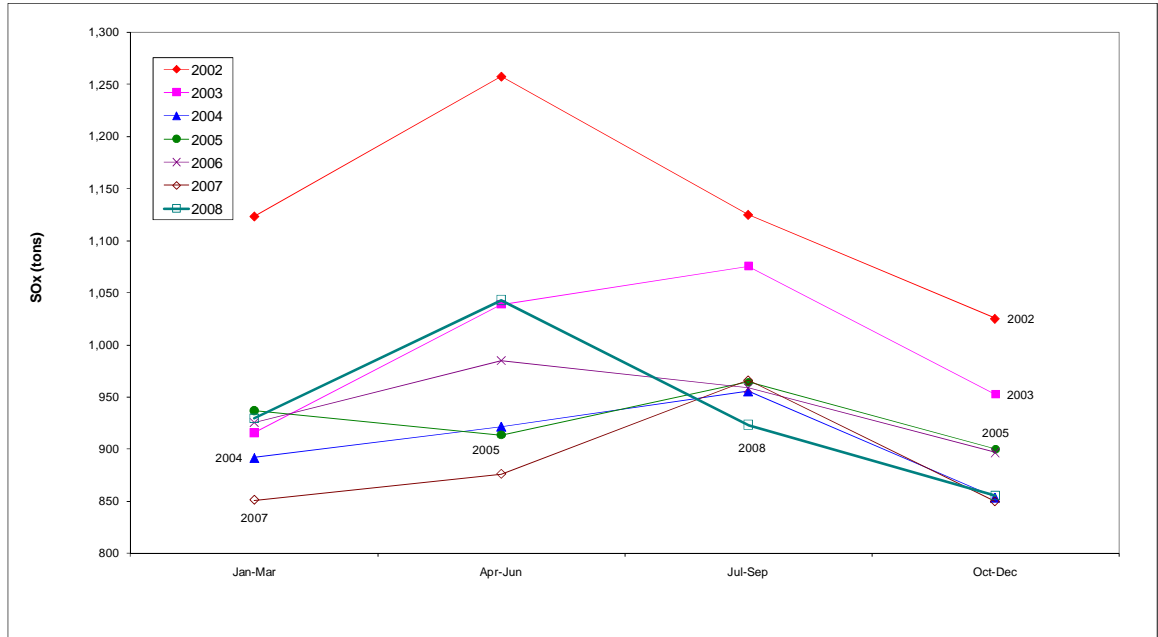


Figure 7-6
Quarterly SOx Emissions from Calendar Years 2002 through 2008



Geographic Distribution of Emissions

As part of this program audit, AQMD staff examined the quarterly emissions maps (developed pursuant to Rule 2015(b)(2)), for any notable changes in the geographic distribution of emissions. RECLAIM facilities have the flexibility to increase emissions as much as they need to, as long as they can provide RTCs to offset the emissions exceeding their allocations; however, there are NSR implications if they increase their annual emissions above their Compliance Year 1994 Allocation including non-tradable credits. This flexibility that a RECLAIM facility has to control emissions by installing air pollution control equipment and/or the ability of RECLAIM facilities to purchase RTCs from other facilities to offset their emissions presents cause for concern that RECLAIM could alter the geographic distribution of emissions in the Basin and adversely affect air quality in certain areas.

Quarterly reported RECLAIM emissions for both NO_x and SO_x were mapped for Compliance Year 2008 (all four quarters of 2008 and the first two quarters of 2009). These maps are included in Appendices F and G. Grids are superimposed on these emission maps in order to geographically represent emissions, with shaded cells identifying emission ranges. Each map also identifies the highest emission level among all the grids (*i.e.*, maximum emissions). Comparisons were made of cell patterns and of maximum emissions identified on each map for both NO_x and SO_x pollutants on a quarterly basis between Compliance Year 2007's and Compliance Year 2008's NO_x and SO_x quarterly emission maps to determine if there were any distinct shifts of emissions.

A comparison of the cell patterns on quarterly maps for both NO_x and SO_x pollutants, representing ranges of emissions, revealed no significant geographic

shift in the cell patterns. A further comparison of maximum emissions was also made for both NO_x and SO_x pollutants to determine if there were any emissions increases greater than five percent (a conservative threshold for review) for either pollutant. The quarterly NO_x emission map comparison for Compliance Year 2008 revealed that, with the exception of the first quarter of calendar year 2008 (where the increase in emissions was less than five percent), NO_x emissions decreased during all four quarters for calendar year 2008 and the first two quarters in calendar year 2009. The quarterly SO_x emission map comparison for Compliance Year 2008, showed emission decreases for the third quarter of calendar year 2008 and the first and second quarters of calendar year 2009. However, SO_x emission increases of greater than five percent were discovered for the remaining three quarters of the 2008 compliance year (the first, second, and fourth quarters of calendar year 2008.) Since there were no new RECLAIM facilities that might be responsible for these quarterly increases, reasons for the increase in maximum emissions for three quarters were examined in greater detail to determine whether or not this increase might represent a potential geographic shift of emissions.

For the first and second quarters of calendar year 2008, the SO_x reported emissions increases were attributed to a major turnaround at a refinery. For the fourth quarter of calendar year 2008, two facilities were responsible for increases in SO_x emissions. The SO_x emissions increase for one facility was due to MDP which was properly applied for performing a late RATA. The other facility's increased SO_x emissions were attributed to the operational status of their fluid catalytic cracking unit (FCCU). This facility's FCCU had been shut down for two months in 2007 compared to only one month for the same quarter in 2008. All these occurrences were results of isolated non-recurring incidents.

In summary, the emission maps show no distinct shift in emissions geographically based on cell patterns from quarter to quarter. In addition, there were no new RECLAIM facilities in Compliance Year 2008, and the causes for SO_x emission increases are of a non-recurring nature, as described above.

Per Capita Exposure to Pollution

The predicted effects of RECLAIM on air quality and public health were thoroughly analyzed through modeling during program development. The results were compared to projected impacts from continuing traditional command-and-control regulations and implementing control measures in the 1991 AQMP. One of the criteria examined in the analysis was per capita population exposure.

Per capita population exposure reflects the length of time each person is exposed to unhealthful air quality. The modeling performed in the program development analysis projected that the reductions in per capita exposure under RECLAIM in calendar year 1994 would be nearly identical to the reductions projected for implementation of the control measures in the 1991 AQMP, and the reductions resulting from RECLAIM would be greater in calendar years 1997 and 2000. As reported in previous annual reports, actual per capita exposures to ozone for 1994 and 1997 were below the projections.

As part of the Children's Environmental Health Protection Act that was passed in 1999, and in consultation with the Office of Environmental Health Hazard Assessment, CARB is to "review all existing health-based ambient air quality standards to determine whether these standards protect public health, including infants and children, with an adequate margin of safety." As a result of that requirement, CARB adopted a new 8-hour ozone standard (0.070 ppm) in addition to the 1-hour standard (0.09 ppm) already in place. Table 7-1 shows the number of days that this new state 8-hour ozone standard of 0.070 ppm, which became effective May 17, 2006, was exceeded as well as the number of days the 1-hour standard was exceeded.

In July 1997, the USEPA established a new ozone National Ambient Air Quality Standard (NAAQS) of 0.085 ppm based on an 8-hour average measurement. As part of the Phase I implementation that was finalized in June 2004, the federal 1-hour ozone standard (0.12 ppm) was revoked. Effective May 27, 2008, the 8-hour NAAQS ozone standard was reduced to 0.075 ppm. To reflect this revised standard, Table 7-1 shows monitoring results based on this revised 8-hour federal standard.

Table 7-1 summarizes ozone data for calendar years 2001 through 2009 in terms of the number of days that exceeded the state and federal ambient ozone standards and the Basin's maximum concentration in each calendar year. This table shows that in calendar year 2009, the state 1-hour standard and state 8-hour standard were exceeded on 100 days and 131 days, respectively, which is about the same number of days in each year starting in 2006. As for the federal 8-hour standard, calendar year 2009 shows about the same number of exceedances as 2005 and 2006. Finally, the table shows that the calendar year 2009 Basin maximum 1-hour value is about the same for the last four years and the Basin maximum 8-hour value is the lowest to date.

**Table 7-1
Summary of Ozone Data**

	Calendar Year								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Days exceeding state 1-hour standard (0.09 ppm)	121	118	133	110	111	102	99	98	100
Days exceeding state new 8-hour standard (0.07 ppm)	156	149	161	161	142	121	128	136	131
Days exceeding federal 8-hour standard (0.075 ppm)	132	135	141	126	116	114	108	121	113
Basin Maximum 1-hour ozone concentration (ppm)	0.191	0.169	0.216	0.163	0.163	0.175	0.171	0.176	0.176
Basin Maximum 8-hour ozone concentration (ppm)	0.146	0.148	0.200	0.148	0.145	0.142	0.137	0.131	0.128

The CCAA, which was enacted in 1988, established targets for reducing overall population exposure to severe non-attainment pollutants in the Basin—a 25% reduction by December 31, 1994, a 40% reduction by December 31, 1997, and a 50% reduction by December 31, 2000 relative to a calendar years 1986-88 baseline. These targets are based on the number of hours on average a person is exposed (“per capita exposure”²) to ozone above the state 1-hour standard of 0.09 ppm. Table 7-2 shows, for each of the four counties and the Basin overall, the 1986-88 baseline, the actual per capita exposures each year since 1994 (RECLAIM’s initial year), and the 1997 and 2000 targets set by the CCAA. As shown in Table 7-2, the CCAA reduction targets were achieved as early as 1994 (actual 1994 Basin per capita exposure was 37.6 hours, which is below the 2000 target of 40.2 hours). The per capita exposure continued to remain much lower than the CCAA targets since RECLAIM started in 1994. For calendar year 2009, the actual per capita exposure for the Basin was 2.87 hours, which represents a 96% reduction from the 1986-88 baseline level.

² AQMD staff divides the air basin into a grid of square cells and interpolates recorded ozone data from ambient air quality monitors to determine ozone levels experienced in each of these grids. The total person-hours in a county experiencing ozone higher than the state ozone standard is determined by summing over the whole county the products of the number of hours exceeding the state ozone standard per grid cell with the number of residents in the corresponding cell. The per capita ozone exposures are then calculated by dividing the sum of person-hours by the total population within a county. Similar calculations are used to determine the Basin-wide per capita exposure by summing and dividing over the whole Basin.

Table 7-2
Per Capita Exposure to Ozone above the State One-Hour Standard of 0.09 ppm (hours)

Calendar Year	Basin	Los Angeles	Orange	Riverside	San Bernardino
1986-88 baseline ¹	80.5	75.8	27.2	94.1	192.6
1994 actual	37.6	26.5	9	71.1	124.9
1995 actual	27.7	20	5.7	48.8	91.9
1996 actual	20.3	13.2	4	42.8	70
1997 actual	5.9	3	0.6	13.9	24.5
1998 actual	12.1	7.9	3.1	25.2	40.2
2000 actual	3.8	2.6	0.7	8.5	11.4
2001 actual	1.73	0.88	0.15	6	5.68
2002 actual	3.87	2.16	0.13	11.12	12.59
2003 actual	10.92	6.3	0.88	20.98	40.21
2004 actual	3.68	2.26	0.50	6.82	12.34
2005 actual	3.11	1.43	0.03	6.06	12.54
2006 actual	4.56	3.08	0.68	8.02	13.30
2007 actual	2.90	1.50	0.35	4.65	10.53
2008 actual	4.14	2.04	0.26	7.50	14.71
2009 actual	2.872	1.538	0.078	3.884	10.539
1997 target ²	48.3	45.5	16.3	56.5	115.6
2000 target ³	40.2	37.9	13.6	47	96.3

¹ Average over three years, 1986 through 1988.

² 60% of the 1986-88 baseline exposures.

³ 50% of the 1986-88 baseline exposures.

Table 7-2 shows that actual per capita exposures during all the years mentioned were well under the 1997 and 2000 target exposures limits. It should also be noted that air quality in the Basin is a complex function of meteorological conditions and an array of different emission sources, including mobile, area, RECLAIM stationary sources, and non-RECLAIM stationary sources. Therefore, the reduction of per capita exposure beyond the projected level is not necessarily attributable to implementation of the RECLAIM program. It is possible that actual per capita exposure might have been as low, if not lower, with continuation of command-and-control regulations.

Toxic Impacts

Based on a comprehensive toxic impact analysis performed during program development, it was concluded that RECLAIM would not result in any significant impacts on air toxic emissions. Nevertheless, to ensure that the implementation of RECLAIM does not result in adverse toxic impacts, each annual program audit is required to assess any increase in the public health exposure to toxics caused by RECLAIM.

RECLAIM sources are subject to the same air toxic statutes and regulations (e.g., AQMD Regulation XIV, State AB 2588, Federal National Emissions Standards for Hazardous Air Pollutants, etc.) as other sources in the Basin. These regulations ensure that RECLAIM does not result in adverse air toxic health impacts. In addition, air toxic health risk is primarily caused by emissions

of VOCs and certain metals, rather than NOx or SOx emissions. VOC sources at RECLAIM facilities are subject to source-specific command-and-control rules the same way these rules apply to non-RECLAIM facilities, in addition to the toxics requirements described above. Sources of toxic metals emissions are also subject to the above-identified regulations pertaining to toxic emissions. As a result, implementation of NOx and SOx RECLAIM is not expected to significantly impact air toxic emissions. That is, the substitution of NOx and SOx RECLAIM for the command-and-control rules and the measures RECLAIM subsumes are irrelevant to toxic emissions; the same toxics requirements and VOC rules and control measures apply in either case. However, AQMD will continue to monitor and assess toxic risk reduction as part of future annual audits.

APPENDIX A

RECLAIM UNIVERSE OF SOURCES

The RECLAIM universe of active sources as of June 30, 2009 is provided below.

Facility ID	Cycle	Facility Name	Market
800088	2	3M COMPANY	NOx
16395	2	AAA GLASS CORP	NOx
104017	1	AERA ENERGY LLC	NOx
23752	2	AEROCRAFT HEAT TREATING CO INC	NOx
115394	1	AES ALAMITOS, LLC	NOx
115389	2	AES HUNTINGTON BEACH, LLC	NOx/SOx
42676	2	AES PLACERITA INC	NOx
115536	1	AES REDONDO BEACH, LLC	NOx
148236	2	AIR LIQUIDE LARGE INDUSTRIES U.S., LP	NOx/SOx
3417	1	AIR PROD & CHEM INC	NOx
101656	2	AIR PRODUCTS AND CHEMICALS, INC.	NOx
5998	1	ALL AMERICAN ASPHALT	NOx
114264	1	ALL AMERICAN ASPHALT	NOx
3704	2	ALL AMERICAN ASPHALT, UNIT NO.01	NOx
140499	2	AMERESCO HUNTINGTON BEACH, L.L.C.	NOx
800196	2	AMERICAN AIRLINES INC	NOx
145836	2	AMERICAN APPAREL DYEING AND FINISHING INC.	NOx
156722	1	AMERICAN APPAREL DYEING AND FINISHING INC.	NOx
10141	2	ANGELICA TEXTILE SERVICES	NOx
21598	2	ANGELICA TEXTILE SERVICES	NOx
74424	2	ANGELICA TEXTILE SERVICES	NOx
16642	1	ANHEUSER-BUSCH INC., (LA BREWERY)	NOx/SOx
117140	2	AOC, LLC	NOx
11640	1	ARLON ADHESIVE SYSTEM/DECORATIVE FILMS	NOx
12155	1	ARMSTRONG WORLD INDUSTRIES INC	NOx
16737	2	ATKINSON BRICK CO	NOx
10094	2	ATLAS CARPET MILLS INC	NOx
800437	2	ATTENDS HEALTHCARE PRODUCTS INC	NOx
117290	2	B BRAUN MEDICAL, INC	NOx
800016	2	BAKER COMMODITIES INC	NOx
117785	1	BALL METAL BEVERAGE CONTAINER CORP.	NOx
800205	2	BANK OF AMERICA NT & SA, BREA CENTER	NOx
40034	1	BENTLEY PRINCE STREET INC	NOx
119907	1	BERRY PETROLEUM COMPANY	NOx
155474	2	BICENT (CALIFORNIA) MALBURG LLC	NOx
132068	1	BIMBO BAKERIES USA INC	NOx
149491	2	BOEING REALTY CORP	NOx
115241	1	BOEING SATELLITE SYSTEMS INC	NOx
800067	1	BOEING SATELLITE SYSTEMS INC	NOx
800343	2	BOEING SATELLITE SYSTEMS, INC	NOx
131003	2	BP WEST COAST PROD.LLC BP CARSON REF.	NOx/SOx
131249	1	BP WEST COAST PRODUCTS LLC,BP WILMINGTON	NOx/SOx
98159	2	BREITBURN ENERGY CORP	NOx
25638	2	BURBANK CITY, BURBANK WATER & POWER	NOx
128243	1	BURBANK CITY, BURBANK WATER & POWER,SCPPA	NOx
800344	1	CALIFORNIA AIR NATIONAL GUARD, MARCH AFB	NOx
22607	2	CALIFORNIA DAIRIES, INC	NOx
138568	1	CALIFORNIA DROP FORGE, INC	NOx
800181	2	CALIFORNIA PORTLAND CEMENT CO	NOx/SOx
46268	1	CALIFORNIA STEEL INDUSTRIES INC	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Market
107653	2	CALMAT CO	NOx
107654	2	CALMAT CO	NOx
107655	2	CALMAT CO	NOx
107656	2	CALMAT CO	NOx
119104	1	CALMAT CO	NOx/SOx
94930	1	CARGILL INC	NOx
22911	2	CARLTON FORGE WORKS	NOx
118406	1	CARSON COGENERATION COMPANY	NOx
141555	2	CASTAIC CLAY PRODUCTS, LLC	NOx
800373	1	CENCO REFINING COMPANY	NOx/SOx
148925	1	CHERRY AEROSPACE	NOx
800030	2	CHEVRON PRODUCTS CO.	NOx/SOx
56940	1	CITY OF ANAHEIM/COMB TURBINE GEN STATION	NOx
129810	1	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	NOx
139796	1	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	NOx
16978	2	CLOUGHERTY PACKING LLC/HORMEL FOODS CORP	NOx
800210	2	CONEXANT SYSTEMS INC	NOx
800362	1	CONOCOPHILLIPS COMPANY	NOx/SOx
800363	2	CONOCOPHILLIPS COMPANY	NOx/SOx
38440	2	COOPER & BRAIN - BREA	NOx
2537	2	CORONA CITY, DEPT OF WATER & POWER	NOx
68042	2	CORONA ENERGY PARTNERS, LTD	NOx
65384	1	CRITERION CATALYST CO L.P.	NOx
50098	1	D&D DISPOSAL INC,WEST COAST RENDERING CO	NOx
63180	1	DARLING INTERNATIONAL INC	NOx
3721	2	DART CONTAINER CORP OF CALIFORNIA	NOx
7411	2	DAVIS WIRE CORP	NOx
143738	2	DCOR LLC	NOx
143739	2	DCOR LLC	NOx
143740	2	DCOR LLC	NOx
143741	1	DCOR LLC	NOx
132071	1	DEAN FOODS CO. OF CALIFORNIA	NOx
47771	1	DELEO CLAY TILE CO INC	NOx
800037	2	DEMENNO/KERDOON	NOx
125579	1	DIRECTV	NOx
800189	1	DISNEYLAND RESORT	NOx
142536	2	DRS TECHNOLOGIES, INC.	NOx
800264	2	EDGINGTON OIL COMPANY	NOx/SOx
133813	1	EI COLTON, LLC	NOx
115663	1	EL SEGUNDO POWER, LLC	NOx
800372	2	EQUILON ENTER. LLC, SHELL OIL PROD. US	NOx/SOx
124838	1	EXIDE TECHNOLOGIES	NOx/SOx
17344	1	EXXONMOBIL OIL CORP	NOx
25058	2	EXXONMOBIL OIL CORP	NOx
800089	1	EXXONMOBIL OIL CORPORATION	NOx/SOx
800094	1	EXXONMOBIL OIL CORPORATION	NOx
95212	1	FABRICA	NOx
11716	1	FONTANA PAPER MILLS INC	NOx
346	1	FRITO-LAY NORTH AMERICA, INC.	NOx
2418	2	FRUIT GROWERS SUPPLY CO	NOx
142267	2	FS PRECISION TECH LLC	NOx
5814	1	GAINNEY CERAMICS INC	NOx
152857	2	GEORGIA PACIFIC	NOx
11016	2	GEORGIA-PACIFIC CORP	NOx
124723	1	GREKA OIL & GAS, INC	NOx
137471	2	GRIFOLS BIOLOGICALS INC	NOx
106325	2	HARBOR COGENERATION CO	NOx
157359	1	HENKEL	NOx
123774	1	HERAEUS METAL PROCESSING, INC.	NOx

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Facility ID	Cycle	Facility Name	Market
141585	1	HEXION SPECIALTY CHEMICALS, INC.	NOx
15164	1	HIGGINS BRICK CO	NOx
113160	2	HILTON COSTA MESA	NOx
800066	1	HITCO CARBON COMPOSITES INC	NOx
2912	2	HOLLIDAY ROCK CO INC	NOx
800003	2	HONEYWELL INTERNATIONAL INC	NOx
124619	1	IMPRESS USA INC	NOx
123087	2	INDALEX WEST INC	NOx
124808	2	INEOS POLYPROPYLENE LLC	NOx/SOx
129816	2	INLAND EMPIRE ENERGY CENTER, LLC	NOx
23589	2	INTERNATIONAL EXTRUSION CORP	NOx
157363	2	INTERNATIONAL PAPER	NOx
106810	2	INTERSTATE BRANDS CORP	NOx
22364	1	ITT INDUSTRIES, CANNON	NOx
16338	1	KAISER ALUMINUM & CHEM CORP	NOx
21887	2	KIMBERLY-CLARK WORLDWIDE INC.-FULT. MILL	NOx/SOx
1744	2	KIRKHILL RUBBER CO	NOx
800335	2	LA CITY, DEPT OF AIRPORT	NOx
800170	1	LA CITY, DWP HARBOR GENERATING STATION	NOx
800074	1	LA CITY, DWP HAYNES GENERATING STATION	NOx
800075	1	LA CITY, DWP SCATTERGOOD GENERATING STN	NOx
800193	2	LA CITY, DWP VALLEY GENERATING STATION	NOx
61962	1	LA CITY, HARBOR DEPT	NOx
550	1	LA CO., INTERNAL SERVICE DEPT	NOx
115277	1	LAFAYETTE TEXTILE IND LLC	NOx
141295	2	LEKOS DYE AND FINISHING, INC	NOx
144455	2	LIFOAM INDUSTRIES, LLC	NOx
83102	2	LIGHT METALS INC	NOx
151394	2	LINN WESTERN OPERATING, INC.	NOx
151415	2	LINN WESTERN OPERATING, INC.	NOx
151532	2	LINN WESTERN OPERATING, INC.	NOx
152054	1	LINN WESTERN OPERATING, INC.	NOx
115314	2	LONG BEACH GENERATION LLC	NOx
17623	2	LOS ANGELES ATHLETIC CLUB	NOx
58622	2	LOS ANGELES COLD STORAGE CO	NOx
125015	2	LOS ANGELES TIMES COMMUNICATIONS LLC	NOx
800080	2	LUNDAY-THAGARD COMPANY	NOx/SOx
38872	1	MARS PETCARE U.S., INC.	NOx
14049	2	MARUCHAN INC	NOx
3029	2	MATCHMASTER DYEING & FINISHING INC	NOx
148340	2	MCDONNELL DOUGLAS CORP/COM AIRCRAFT SERV	NOx
2825	1	MCP FOODS INC	NOx
153478	2	MEGA PRINTEX, INC.	NOx
115563	1	METAL COATERS OF CALIFORNIA	NOx
94872	2	METAL CONTAINER CORP	NOx
155877	1	MILLERCOORS, LLC	NOx
12372	1	MISSION CLAY PRODUCTS	NOx
121737	1	MOUNTAINVIEW POWER COMPANY LLC	NOx
11887	2	NASA JET PROPULSION LAB	NOx
40483	2	NELCO PROD. INC	NOx
12428	2	NEW NGC, INC.	NOx
131732	2	NEWPORT FAB, LLC	NOx
18294	1	NORTHROP GRUMMAN CORP, AIRCRAFT DIV	NOx
800408	1	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	NOx
800409	2	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	NOx
112853	2	NP COGEN INC	NOx
45471	2	OGLEBAY NORTON INDUSTRIAL SANDS INC	NOx
89248	2	OLD COUNTRY MILLWORK INC	NOx
47781	1	OLS ENERGY-CHINO	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Market
35302	2	OWENS CORNING ROOFING AND ASPHALT, LLC	NOx/SOx
7427	1	OWENS-BROCKWAY GLASS CONTAINER INC	NOx/SOx
45746	2	PABCO BLDG PRODUCTS LLC,PABCO PAPER, DBA	NOx/SOx
17953	1	PACIFIC CLAY PRODUCTS INC	NOx
59618	1	PACIFIC CONTINENTAL TEXTILES, INC.	NOx
151178	1	PACIFIC ENERGY	NOx
60531	2	PACIFIC FABRIC FINISHING	NOx
2946	1	PACIFIC FORGE INC	NOx
137520	1	PACIFIC TERMINALS LLC	NOx
800416	1	PACIFIC TERMINALS LLC	NOx
800417	2	PACIFIC TERMINALS LLC	NOx
800419	2	PACIFIC TERMINALS LLC - HUNTINGTON	NOx
800420	2	PACIFIC TERMINALS LLC - LONG BEACH	NOx
130211	2	PAPER-PAK INDUSTRIES	NOx
800183	1	PARAMOUNT PETR CORP (EIS USE)	NOx/SOx
800168	1	PASADENA CITY, DWP (EIS USE)	NOx
133987	1	PLAINS EXPLORATION & PRODUCTION CO, LP	NOx
133996	2	PLAINS EXPLORATION & PRODUCTION COMPANY	NOx
800431	1	PRATT & WHITNEY ROCKETDYNE, INC.	NOx
7416	1	PRAXAIR INC	NOx
42630	1	PRAXAIR INC	NOx
152501	1	PRECISION SPECIALTY METALS INC	NOx
136	2	PRESS FORGE CO	NOx
105903	1	PRIME WHEEL	NOx
132191	1	PUREENERGY OPERATING SERVICES, LLC	NOx
132192	1	PUREENERGY OPERATING SERVICES, LLC	NOx
8547	1	QUEMETCO INC	NOx/SOx
19167	2	R J NOBLE COMPANY	NOx
3585	2	R. R. DONNELLEY & SONS CO, LA MFG DIV	NOx
20604	2	RALPHS GROCERY CO	NOx
115041	1	RAYTHEON COMPANY	NOx
114997	1	RAYTHEON COMPANY	NOx
115172	2	RAYTHEON COMPANY	NOx
800371	2	RAYTHEON SYSTEMS COMPANY - FULLERTON OPS	NOx
20543	1	REDCO II	NOx
15544	2	REICHHOLD INC	NOx
115315	1	RELIANT ENERGY ETIWANDA, INC.	NOx
52517	1	REXAM PLC, REXAM BEVERAGE CAN COMPANY	NOx
114801	1	RHODIA INC.	NOx/SOx
61722	2	RICOH ELECTRONICS INC	NOx
139010	2	RIPON COGENERATION LLC	NOx
800182	1	RIVERSIDE CEMENT CO (EIS USE)	NOx/SOx
800113	2	ROHR,INC	NOx
18455	2	ROYALTY CARPET MILLS INC	NOx
4242	2	SAN DIEGO GAS & ELECTRIC	NOx
155221	2	SAVE THE QUEEN LLC (DBA QUEEN MARY)	NOx
15504	2	SCHLOSSER FORGE COMPANY	NOx
20203	2	SCOPE PRODUCTS INC, DEXT CO	NOx
14926	1	SEMPRA ENERGY (THE GAS CO)	NOx
37603	1	SGL TECHNIC INC, POLYCARBON DIVISION	NOx
131850	2	SHAW DIVERSIFIED SERVICES INC	NOx
117227	2	SHCI SM BCH HOTEL LLC, LOEWS SM BCH HOTE	NOx
16639	1	SHULTZ STEEL CO	NOx
54402	2	SIERRA ALUMINUM COMPANY	NOx
85943	2	SIERRA ALUMINUM COMPANY	NOx
101977	1	SIGNAL HILL PETROLEUM INC	NOx
43201	2	SNOW SUMMIT INC	NOx
4477	1	SO CAL EDISON CO	NOx
5973	1	SO CAL GAS CO	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Market
800127	1	SO CAL GAS CO (EIS USE)	NOx
800128	1	SO CAL GAS CO (EIS USE)	NOx
8582	1	SO CAL GAS CO/PLAYA DEL REY STORAGE FACI	NOx
14871	2	SONOCO PRODUCTS CO	NOx
103618	1	SPECIALTY BRANDS INC	NOx
800338	2	SPECIALTY PAPER MILLS INC	NOx
126498	2	STEELSCAPE, INC	NOx
105277	2	SULLY MILLER CONTRACTING CO	NOx
19390	1	SULLY-MILLER CONTRACTING CO.	NOx
23196	2	SUNKIST GROWERS, INC	NOx
2083	1	SUPERIOR INDUSTRIES INTERNATIONAL INC	NOx
3968	1	TABC, INC	NOx
18931	2	TAMCO	NOx
14944	1	TECHALLOY CO., INC.	NOx/SOx
151798	1	TESORO REFINING AND MARKETING COMPANY LOS ANGELES REFINERY	NOx/SOx
800436	1	TESORO REFINING AND MARKETING COMPANY LOS ANGELES REFINERY	NOx/SOx
96587	1	TEXOLLINI INC	NOx
14736	2	THE BOEING COMPANY	NOx
800110	2	THE BOEING COMPANY	NOx
800038	2	THE BOEING COMPANY - C17 PROGRAM	NOx
11119	1	THE GAS CO./ SEMPRA ENERGY	NOx
153199	1	THE KROGER CO/RALPH GROCERY CO	NOx
11435	2	THE PQ CORP	NOx/SOx
97081	1	THE TERMO COMPANY	NOx
800330	1	THUMS LONG BEACH	NOx
129497	1	THUMS LONG BEACH CO	NOx
800325	2	TIDELANDS OIL PRODUCTION CO	NOx
68118	2	TIDELANDS OIL PRODUCTION COMPANY ETAL	NOx
800240	2	TIN, INC. TEMPLE-INLAND, DBA	NOx
137508	2	TONOGA INC, TACONIC DBA	NOx
53729	1	TREND OFFSET PRINTING SERVICES, INC	NOx
9053	1	TRIGEN- LA ENERGY CORP	NOx
9217	1	TRIGEN-LA ENERGY CORP	NOx
11034	2	TRIGEN-LA ENERGY CORP	NOx
43436	1	TST, INC.	NOx
800026	1	ULTRAMAR INC (NSR USE ONLY)	NOx/SOx
9755	2	UNITED AIRLINES INC	NOx
73022	2	US AIRWAYS INC	NOx
800149	2	US BORAX INC	NOx
800150	1	US GOVT, AF DEPT, MARCH AIR RESERVE BASE	NOx
12185	2	US GYPSUM CO	NOx/SOx
18695	1	US GYPSUM CO	NOx
1073	1	US TILE CO	NOx
800393	1	VALERO WILMINGTON ASPHALT PLANT	NOx
111415	2	VAN CAN COMPANY	NOx
14502	2	VERNON CITY, LIGHT & POWER DEPT	NOx
115130	1	VERTIS, INC	NOx
151594	1	VINTAGE	NOx
148897	2	VINTAGE PETROLEUM	NOx
148896	2	VINTAGE PETROLEUM, INC DEL VALLE OIL FLD	NOx
151601	1	VINTAGE PRODUCTION CALIFORNIA LLC	NOx
151899	2	VINTAGE PRODUCTION CALIFORNIA LLC	NOx
14495	2	VISTA METALS CORPORATION	NOx
126501	2	VOUGHT AIRCRAFT INDUSTRIES	NOx
143261	1	WELLHEAD POWER COLTON LLC	NOx
42775	1	WEST NEWPORT OIL CO	NOx/SOx
17956	1	WESTERN METAL DECORATING CO	NOx
51620	1	WHEELABRATOR NORWALK ENERGY CO INC	NOx
127299	2	WILDFLOWER ENERGY LP/INDIGO ENERGY FAC	NOx

APPENDIX B
FACILITY INCLUSIONS

As discussed in Chapter 1, no new facility was added to the RECLAIM universe from July 1, 2008 through June 30, 2009.

APPENDIX C

RECLAIM FACILITIES CEASING OPERATION OR EXCLUDED

AQMD staff is aware of the following RECLAIM facilities that permanently shut down all operations, inactivated their RECLAIM permits, or were excluded from the RECLAIM universe from July 1, 2008 through June 30, 2009. The reasons for shutdowns and exclusions cited below are based on the information available to AQMD staff.

Facility ID	15982
Facility Name	Custom Alloy Sales Inc.
City and County	Lynwood, Los Angeles County
SIC	3341
Pollutants	NOx
1994 Allocation	9,230
Reason for Shutdown	Declining demand for products, and high cost of manufacturing, production or raw material.
Facility ID	119134
Facility Name	ITW CIP California
City and County	Santa Fe Springs, Los Angeles County
SIC	3465
Pollutants	NOx
1994 Allocation	20,774
Reason for Shutdown	Declining demand for products.
Facility ID	131824
Facility Name	Steelcase, Inc.
City and County	City of Industry, Los Angeles County
SIC	2522
Pollutants	NOx
1994 Allocation	24,608
Reason for Shutdown	Declining demand for products.
Facility ID	147764
Facility Name	Ball Aerosol & Specialty Container Inc.
City and County	Los Angeles, Los Angeles County
SIC	3411
Pollutants	NOx
1994 Allocation	10,078
Reason for Shutdown	Operations consolidated to plant in Oakdale, CA.
Facility ID	152740
Facility Name	Mars Petcare US Inc.
City and County	Vernon, Los Angeles County
SIC	2047
Pollutants	NOx
1994 Allocation	12,493
Reason for Shutdown	This new RECLAIM facility, had taken over operations from shutdown facility Masterfoods USA (I.D. # 18865) on 1/2/08. However, Mars Petcare US Inc. shutdown on 11/7/08 citing the capacity of the plant was no longer needed to support the wet pet food part of the business.

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Facility ID	800167
Facility Name	Northrop Grumman Corp.
City and County	Hawthorne, Los Angeles County
SIC	3721
Pollutants	NOx
1994 Allocation	18,313
Reason for Shutdown	Facility had sold their commercial aircraft operations to an existing RECLAIM facility, Vought Aircraft Industries (I.D. # 126501). Northrop Grumman Corp kept the military operations portion of their business until shutting down at this location on 5/20/08 and consolidated these operations at their plant in El Segundo, CA. Permits were cancelled on 7/22/08 for their operations at this location.

APPENDIX D

FACILITIES THAT EXCEEDED THEIR ANNUAL ALLOCATIONS

For this Compliance Year 2008 Annual RECLAIM Audit Report, the following is a list of facilities that failed to reconcile by securing RTCs to cover their NOx and/or SOx emissions in any Compliance Year (back to 1994) based on the results of audits conducted by AQMD staff. However, for all subsequent annual audit reports, only facilities that failed to reconcile by securing RTCs to cover their emissions for the compliance year in question will be listed.

Facility ID	Facility Name	Compliance Year	Emittant
75	TUFTEX CARPET MILLS INC	1994	NOx
1962	WEYERHAEUSER PAPER CO	1994	NOx
5998	ALL AMERICAN ASPHALT	1994	NOx
7427	OWENS-BROCKWAY GLASS CONTAINER	1994	NOx
7940	SWEETHEART CUP CO INC	1994	NOx
10915	INDUSTRIAL ASPHALT/HUNTMIX INC GEN PRTNR	1994	NOx
11435	THE PQ CORP	1994	SOx
12372	MISSION CLAY PRODUCTS	1994	NOx
13179	CRESCENT CRANES INC.	1994	NOx
14871	SONOCO PRODUCTS CO	1994	NOx
15381	CHEVRON USA INC., MONTEBELLO	1994	NOx
15504	SCHLOSSER FORGE CO	1994	NOx
16531	NEVILLE CHEM CO	1994	NOx
18455	ROYALTY CARPET MILLS INC	1994	NOx
20797	INDUSTRIAL ASPHALT	1994	NOx
22373	CONTAINER CORP OF AMERICA	1994	NOx
23449	STANDARD CONCRETE PRODUCTS	1994	NOx
24887	PACIFIC TUBE CO	1994	NOx
42333	AMERICAN NATIONAL CAN COMPANY	1994	NOx/SOx
42630	UNION CARBIDE/PRAXAIR	1994	NOx
45527	AMERICAN RACING EQUIPMENT INC	1994	NOx
46268	CALIFORNIA STEEL INDUSTRIES	1994	NOx
51949	LA DYE & PRINT WOKS INC	1994	NOx
55239	SANTA MONICA BAY HOTEL	1994	NOx
55714	SUNLAW COGENERATION	1994	NOx
57818	CES ENERGY CORONA	1994	NOx
59968	BARMET ALUMINUM CORP.	1994	NOx
67945	CANADA MALTING CO LTD,GREAT WESTERN MALT	1994	NOx

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Facility ID	Facility Name	Compliance Year	Emittant
73790	LUCKY CONTAINER INC	1994	NOx
79015	GEO PETROLEUM	1994	NOx
83102	LIGHT METALS INC	1994	NOx
83444	MCGAW, INC.	1994	NOx
800115	SHELL CHEM CORP (EIS USE)	1994	NOx
800153	US GOVT. NAVY DEPT LB SHIPYARD	1994	NOx
800182	RIVERSIDE CEMENT COMPANY	1994	NOx
800208	PAPER PAK PROD. INC	1994	NOx
800241	SHELL WESTERN	1994	NOx
800319	UNION OIL CO OF CAL	1994	NOx
1026	SCE, SAN BERNARDINO	1995	NOx
1744	KIRKHILL RUBBER	1995	NOx
3585	R.R. DONNELLEY & SONS	1995	NOx
3704	ALL AMERICAN ASPHALT	1995	NOx
4451	CHERRY TEXTRON	1995	NOx
6505	SANWA FOODS	1995	NOx
11435	THE PQ CORP	1995	SOx
12185	US GYPSUM CO	1995	NOx
13976	LUCKY STORES, INC.	1995	NOx
15872	SCE-HIGHGROVE	1995	NOx
15982	CUSTOM ALLOY SALES	1995	NOx
16274	NABISCO BRANDS	1995	NOx
16978	CLOUGHERTY PACKAGING CO., FARMER JOHN	1995	NOx
18763	SCE-EL SEGUNDO	1995	NOx
18865	KAL KAN INC.	1995	NOx
22047	FANSTEEL/CA DROP FORGE	1995	NOx
23449	STANDARD CONCRETE PRODUCTS	1995	NOx
31046	LISTON BRICK CO	1995	NOx
35302	OWENS CORNING FIBERGLAS	1995	NOx
40196	GUARDIAN INDUSTRIES INC.	1995	SOx
42333	AMERICAN NATIONAL CAN COMPANY	1995	SOx
42577	ONTARIO COGEN	1995	NOx
42676	AES PLACERITA	1995	NOx
45527	AMERICAN RACING EQUIPMENT INC	1995	NOx
47781	OLS ENERGY-CHINO	1995	NOx
55239	SANTA MONICA BAY HOTEL	1995	NOx
57722	BALL-INCON GLASS PACKAGING	1995	NOx
58622	LOS ANGELES COLD STORAGE	1995	NOx
59968	BARMET ALUMINUM CORP.	1995	NOx

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Facility ID	Facility Name	Compliance Year	Emittant
60342	UNITED STATES CAN	1995	NOx
63180	DARLING-DELAWARE COMPANY INC	1995	NOx
73635	ABLESTIK LABORATORIES	1995	NOx
79015	GEO PETROLEUM	1995	NOx
83444	MCGAW, INC.	1995	NOx
99599	DOMTAR GYPSUM	1995	NOx
101039	GRANITE CONSTRUCTION	1995	NOx
102969	QUEEN CARPET CORP., TUFTEX	1995	NOx
800089	EXXONMOBIL OIL CORPORATION	1995	NOx/SOx
800208	PAPER PAK PROD. INC	1995	NOx
800240	INLAND CONTAINER CORP	1995	NOx
800319	UNION OIL CO OF CAL	1995	NOx
800342	ARTESIA DYEING, FINISHING	1995	NOx
1026	SCE, SAN BERNARDINO	1996	NOx
4477	SCE - PEBBLEY BEACH	1996	NOx
6505	SANWA FOODS	1996	NOx
7427	OWENS-BROCKWAY GLASS CONTAINER	1996	NOx/SOx
11034	CENTRAL PLANTS	1996	NOx
12372	MISSION CLAY PRODUCTS	1996	NOx
12428	NATIONAL GYPSUM	1996	NOx
13179	CRESCENT CRANES INC.	1996	NOx
13976	LUCKY STORES, INC.	1996	NOx
14049	MARUCHAN INC	1996	NOx
14052	SCE, REDONDO	1996	NOx
14495	VISTA METALS CORP	1996	NOx
15872	SCE-HIGHGROVE	1996	NOx
16639	SHULTZ STEEL CO	1996	NOx
18763	SCE-EL SEGUNDO	1996	NOx
18931	TAMCO	1996	NOx
21598	ANGELICA HEALTHCARE	1996	NOx
21837	ALPHA OWENS-CORNING	1996	NOx
21887	KIMBERLY-CLARK	1996	NOx
24887	PACIFIC TUBE CO	1996	NOx
35302	OWENS CORNING FIBERGLAS	1996	NOx
40483	NELCO PRODUCTS	1996	NOx
42577	ONTARIO COGEN	1996	NOx
54167	CBS STUDIOS	1996	NOx
54402	SIERRA ALUMINUM	1996	NOx
57722	BALL-INCON GLASS PACKAGING	1996	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
57818	CES ENERGY CORONA	1996	NOx
63180	DARLING-DELAWARE COMPANY INC	1996	NOx
67945	CANADA MALTING CO LTD,GREAT WESTERN MALT	1996	NOx
73635	ABLESTIK LABORATORIES	1996	NOx
75373	FPB COGEN PARTNERS	1996	NOx
75411	PRECISION SPECIALTY METALS	1996	NOx
75479	CES ENERGY, ALBERHILL	1996	NOx
79015	GEO PETROLEUM	1996	NOx
83102	LIGHT METALS INC	1996	NOx
93346	WAYMIRE DRUM CO. INC	1996	NOx
101843	MCWHORTER TECHNOLOGIES, INC	1996	NOx
102969	QUEEN CARPET CORP., TUFTEX	1996	NOx
108701	BALL FOSTER GLASS	1996	NOx
109208	HANYOUNG AMERICA	1996	NOx
800089	EXXONMOBIL OIL CORPORATION	1996	NOx/SOx
800124	SCE - LONG BEACH	1996	NOx
800125	SCE, ALAMITOS	1996	NOx
800181	CAL PORTLAND CEMENT	1996	NOx
800224	SCE, ETIWANDA	1996	NOx
136	PRESS FORGE	1997	NOx
861	STAR-KIST FOODS	1997	NOx
2083	SUPERIOR INDUSTRIES	1997	NOx
12428	NATIONAL GYPSUM	1997	NOx
14472	BHP COATED STEEL CORP	1997	NOx
18695	U. S. GYPSUM	1997	NOx
21887	KIMBERLY-CLARK	1997	NOx
40196	GUARDIAN INDUSTRIES INC.	1997	SOx
40764	CENTURY LAMINATORS	1997	NOx
47232	ARCO CQC KILN	1997	NOx/SOx
55221	PROGRESSIVE CUSTOM WHEELS	1997	NOx
57818	CES ENERGY CORONA	1997	NOx
61722	RICOH ELECTRONICS INC	1997	NOx
65384	CRITERION CATALYST	1997	NOx
104012	CALRESOURCES (AERA) OCS	1997	NOx
106325	HARBOR COGENERATION CO.	1997	NOx
110671	TELEVISION CITY COGEN	1997	NOx
800075	LADWP - SCATTERGOOD	1997	NOx
800089	EXXONMOBIL OIL CORPORATION	1997	NOx
800123	SCE - DOMINGUEZ HILL	1997	NOx

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Facility ID	Facility Name	Compliance Year	Emittant
800124	SCE - LONG BEACH	1997	NOx
800170	LADWP - HARBOR	1997	NOx
136	PRESS FORGE	1998	NOx
861	STAR-KIST FOODS	1998	NOx
3029	MATCHMASTER DYEING & FINISHING	1998	NOx
5814	GAINEY CERAMICS INC.	1998	NOx
9053	CENTRAL PLANT, BUNKER HILL	1998	NOx
12428	NATIONAL GYPSUM	1998	NOx
14052	SCE, REDONDO	1998	NOx
16639	SHULTZ STEEL CO	1998	NOx
21598	ANGELICA HEALTHCARE	1998	NOx
23907	JOHNS MANVILLE	1998	NOx
31046	LISTON BRICK CO	1998	NOx
40483	NELCO PRODUCTS	1998	NOx
43436	TIMCO	1998	NOx
50098	WEST COAST RENDERING CO.	1998	NOx
55865	TRANSAMERICA PLASTICS CORPORATION	1998	NOx
56427	TANDEM INDUSTRIES	1998	NOx
63180	DARLING-DELAWARE COMPANY INC	1998	NOx
83102	LIGHT METALS INC	1998	NOx
106797	BALL FOSTER GLASS	1998	NOx
114997	RAYTHEON SYSTEMS	1998	NOx
115172	RAYTHEON SYSTEMS	1998	NOx
115536	AES REDONDO BEACH	1998	NOx
117140	AOC LLC	1998	NOx
800067	HUGHES SPACE & COMM.	1998	NOx
800074	LADWP-HAYNES	1998	NOx
800075	LADWP - SCATTERGOOD	1998	NOx
800089	EXXONMOBIL OIL CORPORATION	1998	NOx
800192	TRANS WORLD AIRLINES INC.	1998	NOx
800218	TRW INC.	1998	NOx
800326	AVERY DENNISON, FASSON BASE MATERIALS	1998	NOx
800343	HUGHES SPACE & COMMUNICATION	1998	NOx
136	PRESS FORGE	1999	NOx
2825	MCP FOODS INC.	1999	NOx
5973	SC GAS CO., VALENCIA	1999	NOx
7411	DAVIS WIRE CORP	1999	NOx
7427	OWENS-BROCKWAY GLASS CONTAINER	1999	NOx
8791	CAL-PACIFIC DYEING & FINISHING CORP	1999	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
9217	CENTRAL PLANTS, INC., COLLEGE PARK	1999	NOx
9755	UNITED AIRLINES INC	1999	NOx
11034	CENTRAL PLANTS	1999	NOx
12428	NATIONAL GYPSUM	1999	NOx
12912	LIBBEY GLASS, INC	1999	NOx
14049	MARUCHAN INC	1999	NOx
14472	BHP COATED STEEL CORP	1999	NOx
14495	VISTA METALS CORP	1999	NOx
16274	NABISCO BRANDS	1999	NOx
16338	KAISER ALUMINUM & CHEMICAL CORP	1999	NOx
16575	CENTRAL PLANTS INC., DISNEYLAND	1999	NOx
16639	SHULTZ STEEL CO	1999	NOx
17400	AVERY FASSON - MPD	1999	NOx
17623	LOS ANGELES ATHLETIC CLUB	1999	NOx
21598	ANGELICA HEALTHCARE	1999	NOx
22047	FANSTEEL/CA DROP FORGE	1999	NOx
22607	CALIFORNIA MILK PRODUCERS	1999	NOx
22911	CARLTON FORGE WORKS	1999	NOx
31046	LISTON BRICK CO	1999	NOx
36363	CALIFORNIA SPORTS INC/GREAT WESTERN FORUM	1999	NOx
38872	DOANE PRODUCTS CO	1999	NOx
40196	GUARDIAN INDUSTRIES INC.	1999	NOx/SOx
40483	NELCO PRODUCTS	1999	NOx
42676	AES PLACERITA	1999	NOx
44551	GNB INCORPORATED	1999	NOx
45953	HAYES-LEMMERZ INTERNATIONAL INC.	1999	NOx
50098	WEST COAST RENDERING CO.	1999	NOx
53729	TREND OFFSET PRINTING SERVICES, INC	1999	NOx
54402	SIERRA ALUMINUM	1999	NOx
55221	PROGRESSIVE CUSTOM WHEELS	1999	NOx
61722	RICOH ELECTRONICS INC	1999	NOx
63180	DARLING-DELAWARE COMPANY INC	1999	NOx
68042	CORONA ENERGY PARTNERS, LTD	1999	NOx
83102	LIGHT METALS INC	1999	NOx
83738	U.S. DYEING & FINISHING INC.	1999	NOx
84223	RUBBERMAID INC	1999	NOx
89429	PARADISE TEXTILE CO	1999	NOx
104571	E & J TEXTILES	1999	NOx
105277	SULLY MILLER CONTRACTING CO	1999	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
105356	ENVIRONMENTAL CHEMICAL CORP	1999	NOx
106797	BALL FOSTER GLASS	1999	SOx
108113	RIDGEWOOD/CALIFORNIA POWER PARTNERS, LP	1999	NOx
109192	TORCH PLATFORM, ESTHER	1999	NOx
109208	HANYOUNG AMERICA	1999	NOx
110671	TELEVISION CITY COGEN	1999	NOx
112853	NP COGEN	1999	NOx
114997	RAYTHEON SYSTEMS	1999	NOx
115002	RAYTHEON SYSTEMS	1999	NOx
115040	RAYTHEON SYSTEMS	1999	NOx
115041	RAYTHEON SYSTEMS	1999	NOx
115172	RAYTHEON SYSTEMS	1999	NOx
115389	AES HUNTINGTON BEACH, LLC	1999	NOx
115536	AES REDONDO BEACH	1999	NOx
800074	LADWP-HAYNES	1999	NOx
800089	EXXONMOBIL OIL CORPORATION	1999	NOx
800123	SCE - DOMINGUEZ HILL	1999	NOx
800170	LADWP - HARBOR	1999	NOx
800192	TRANS WORLD AIRLINES INC.	1999	NOx
800196	AMERICAN AIRLINES INC	1999	NOx
800310	TA INDUSTRIES, INC.	1999	NOx
2083	SUPERIOR INDUSTRIES	2000	NOx
3950	CROWN CORK & SEAL COMPANY, INC.	2000	NOx
4451	CHERRY TEXTRON	2000	NOx
5814	GAINEY CERAMICS INC.	2000	NOx
6281	US GOVT, MARINE CORPS AIR STATION, EL TORO	2000	NOx
7053	THERMO ELECTRON CORP., CAL-DORAN	2000	NOx
7411	DAVIS WIRE CORP	2000	NOx
7427	OWENS-BROCKWAY GLASS CONTAINER	2000	NOx
8791	CAL-PACIFIC DYEING & FINISHING CORP	2000	NOx
9053	CENTRAL PLANT, BUNKER HILL	2000	NOx
9755	UNITED AIRLINES INC	2000	NOx
11674	TRI-ALLOY INC.	2000	NOx
12912	LIBBEY GLASS, INC	2000	NOx
14229	LORBER INDUSTRIES OF CALIFORNIA	2000	NOx
14495	VISTA METALS CORP	2000	NOx
16639	SHULTZ STEEL CO	2000	NOx
17623	LOS ANGELES ATHLETIC CLUB	2000	NOx
17953	PACIFIC CLAY PRODUCTS INC.	2000	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
18455	ROYALTY CARPET MILLS INC	2000	NOx
18931	TAMCO	2000	NOx
20543	REDCO II	2000	NOx
22373	CONTAINER CORP OF AMERICA	2000	NOx
22607	CALIFORNIA MILK PRODUCERS	2000	NOx
24887	PACIFIC TUBE CO	2000	NOx
38872	DOANE PRODUCTS CO	2000	NOx
40196	GUARDIAN INDUSTRIES INC.	2000	NOx/SOx
40483	NELCO PRODUCTS	2000	NOx
42630	UNION CARBIDE/PRAXAIR	2000	NOx
42775	WEST NEWPORT OIL COMPANY	2000	NOx
44551	GNB INCORPORATED	2000	NOx
45953	HAYES-LEMMERZ INTERNATIONAL INC.	2000	NOx
47771	DELEO CLAY TILE COMPANY	2000	NOx
50098	WEST COAST RENDERING CO.	2000	NOx
55758	TISSURAMA INDUSTRIES INC.	2000	NOx
59618	PACIFIC CONTINENTAL TEXTILES, INC	2000	NOx
61589	VANGUARD ENERGY SYSTEMS	2000	NOx
61722	RICOH ELECTRONICS INC	2000	NOx
63180	DARLING-DELAWARE COMPANY INC	2000	NOx
68042	CORONA ENERGY PARTNERS, LTD	2000	NOx
73635	ABLESTIK LABORATORIES	2000	NOx
82727	SMURFIT NEWSPRINT CORPORATION	2000	NOx
83738	U.S. DYEING & FINISHING INC.	2000	NOx
84223	RUBBERMAID INC	2000	NOx
89429	PARADISE TEXTILE CO	2000	NOx
95212	CHROMA SYSTEMS PARTNERS	2000	NOx
100130	ARTESIA SAWDUST PRODUCTS, INC.	2000	NOx
101656	AIR PRODUCTS HYCAL CO L.P., AIR PROD & CHEM	2000	NOx
101843	MCWHORTER TECHNOLOGIES, INC	2000	NOx
104571	E & J TEXTILES	2000	NOx
110671	TELEVISION CITY COGEN	2000	NOx
111415	VAN CAN CO.	2000	NOx
114997	RAYTHEON SYSTEMS	2000	NOx
115172	RAYTHEON SYSTEMS	2000	NOx
115315	MOUNTAIN VISTA POWER GENERATION	2000	NOx
115394	AES ALAMITOS	2000	NOx
115449	PLAYA PHASE I COMMERCIAL LAND, LLC	2000	NOx
115778	MOUNTAINVIEW POWER	2000	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
117572	CRIMSON RESOURCES MANAGEMENT CORP	2000	NOx
117581	CRIMSON RESOURCE MANAGEMENT CORP	2000	NOx
119907	BERRY PETROLEUM	2000	NOx
119920	PECHINEY CAST PLATE	2000	NOx
126498	STEELSCAPE, INC	2000	NOx
800003	HONEYWELL INTERNATIONAL INC.	2000	NOx
800012	ARCO	2000	NOx
800026	ULTRAMAR INC.	2000	NOx
800110	THE BOEING COMPANY	2000	NOx
800182	RIVERSIDE CEMENT COMPANY	2000	NOx/SOx
800192	TRANS WORLD AIRLINES INC.	2000	NOx
800193	LA CITY, DWP; VALLEY STM PLANT	2000	NOx
800196	AMERICAN AIRLINES INC	2000	NOx
800219	TRW INC.	2000	NOx
800240	INLAND CONTAINER CORP	2000	NOx
800258	UNOCAL CORP., HARTLEY CENTER	2000	NOx
800310	TA INDUSTRIES, INC.	2000	NOx
2825	MCP FOODS INC.	2001	NOx
3704	ALL AMERICAN ASPHALT	2001	NOx
4451	CHERRY TEXTRON	2001	NOx
5814	GAINEY CERAMICS INC.	2001	NOx
5998	ALL AMERICAN ASPHALT	2001	NOx
7411	DAVIS WIRE CORP	2001	NOx
9053	CENTRAL PLANT, BUNKER HILL	2001	NOx
11034	CENTRAL PLANTS	2001	NOx
13976	LUCKY STORES, INC.	2001	NOx
16978	CLOUGHERTY PACKAGING CO., FARMER JOHN	2001	NOx
17953	PACIFIC CLAY PRODUCTS INC.	2001	NOx
18695	U. S. GYPSUM	2001	NOx
20543	REDCO II	2001	NOx
22047	FANSTEEL/CA DROP FORGE	2001	NOx
22607	CALIFORNIA MILK PRODUCERS	2001	NOx
25638	BURBANK CITY, PUB SERV DEPT	2001	NOx
40196	GUARDIAN INDUSTRIES INC.	2001	NOx/SOx
44551	GNB INCORPORATED	2001	NOx
51620	WHEELABRATOR NORWALK ENERGY CO INC	2001	NOx
82727	SMURFIT NEWSPRINT CORPORATION	2001	NOx
83102	LIGHT METALS INC	2001	NOx
83738	U.S. DYEING & FINISHING INC.	2001	NOx

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Facility ID	Facility Name	Compliance Year	Emittant
98159	BREITBURN ENERGY CORP	2001	NOx
101656	AIR PRODUCTS HYCAL CO L.P., AIR PROD & CHEM	2001	NOx
109192	TORCH PLATFORM, ESTHER	2001	NOx
109198	TORCH OPERATING COMPANY	2001	NOx
109207	TORCH OPERATING COMPANY	2001	NOx
115315	MOUNTAIN VISTA POWER GENERATION	2001	NOx
115563	METAL COATERS OF CALIFORNIA	2001	NOx
117151	POMONA PAPER COMPANY	2001	NOx
126498	STEELSCAPE, INC	2001	NOx
800170	LADWP - HARBOR	2001	NOx
800181	CAL PORTLAND CEMENT	2001	SOx
800182	RIVERSIDE CEMENT COMPANY	2001	NOx/SOx
800240	INLAND CONTAINER CORP	2001	NOx
1634	STEELCASE INC, WESTERN DIV	2002	NOx
3029	MATCHMASTER DYEING & FINISHING	2002	NOx
3704	ALL AMERICAN ASPHALT	2002	NOx
5814	GAINEY CERAMICS INC.	2002	NOx
7411	DAVIS WIRE CORP	2002	NOx
7427	OWENS-BROCKWAY GLASS CONTAINER	2002	NOx/SOx
9755	UNITED AIRLINES INC	2002	NOx
11142	KEYSOR-CENTURY CORP	2002	NOx
11674	TRI-ALLOY INC.	2002	NOx
12155	ARMSTRONG WORLD INDUSTRIES INC	2002	NOx
14229	LORBER INDUSTRIES OF CALIFORNIA	2002	NOx
16639	SHULTZ STEEL CO	2002	NOx
16737	ATKINSON BRICK CO	2002	NOx
17623	LOS ANGELES ATHLETIC CLUB	2002	NOx
18931	TAMCO	2002	NOx
19167	R J NOBLE COMPANY	2002	NOx
20203	SCOPE PRODUCTS INC, DEXT CO	2002	NOx
20543	REDCO II	2002	NOx
22607	CALIFORNIA MILK PRODUCERS	2002	NOx
23196	SUNKIST GROWERS, INC	2002	NOx
35302	OWENS CORNING FIBERGLAS	2002	NOx/SOx
56427	TANDEM INDUSTRIES	2002	NOx
57329	KWIKSET CORP	2002	NOx
59618	PACIFIC CONTINENTAL TEXTILES, INC	2002	NOx
68118	TIDELANDS OIL PRODUCTION COMPANY ETAL	2002	NOx
68122	TIDELANDS OIL PRODUCTION COMPANY ETAL	2002	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
73022	US AIRWAYS INC	2002	NOx
83738	U.S. DYEING & FINISHING INC.	2002	NOx
94872	METAL CONTAINER CORP	2002	NOx
106325	HARBOR COGENERATION CO.	2002	NOx
106797	BALL FOSTER GLASS	2002	NOx
107653	CALMAT CO	2002	NOx
110982	COMMONWEALTH ALUMINUM CONCAST	2002	NOx
114997	RAYTHEON SYSTEMS	2002	NOx
115041	RAYTHEON SYSTEMS	2002	NOx
115172	RAYTHEON SYSTEMS	2002	NOx
115315	MOUNTAIN VISTA POWER GENERATION	2002	NOx
117140	AOC LLC	2002	NOx
117247	EQUILON ENTERPRISES, LLC	2002	NOx/SOx
121746	DUKESOLUTIONS HUNTINGTON BEACH, LLC	2002	NOx
124838	EXIDE TECHNOLOGIES	2002	NOx
125579	DIRECTV	2002	NOx
126498	STEELSCAPE, INC	2002	NOx
129238	XYRON INC	2002	NOx
129729	DRS TECHNOLOGIES INC	2002	NOx
800182	RIVERSIDE CEMENT COMPANY	2002	NOx/SOx
800240	INLAND CONTAINER CORP	2002	NOx
800325	TIDELANDS OIL PRODUCTION CO	2002	NOx
800373	CENCO REFINING COMPANY	2002	NOx
1744	KIRKHILL RUBBER	2003	NOx
2825	MCP FOODS INC.	2003	NOx
3029	MATCHMASTER DYEING & FINISHING	2003	NOx
3704	ALL AMERICAN ASPHALT	2003	NOx
7411	DAVIS WIRE CORP	2003	NOx
7931	LA PAPER BOX & BOARD MILLS	2003	NOx
9755	UNITED AIRLINES INC	2003	NOx
11674	TRI-ALLOY INC.	2003	NOx
15504	SCHLOSSER FORGE CO	2003	NOx
15544	REICHHOLD INC	2003	NOx
18931	TAMCO	2003	NOx
19167	R J NOBLE COMPANY	2003	NOx
20203	SCOPE PRODUCTS INC, DEXT CO	2003	NOx
22047	FANSTEEL/CA DROP FORGE	2003	NOx
22364	ITT INDUSTRIES, CANNON	2003	NOx
22911	CARLTON FORGE WORKS	2003	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
40196	GUARDIAN INDUSTRIES INC.	2003	SOx
42630	UNION CARBIDE/PRAXAIR	2003	NOx
56427	TANDEM INDUSTRIES	2003	NOx
61722	RICOH ELECTRONICS INC	2003	NOx
63180	DARLING-DELAWARE COMPANY INC	2003	NOx
68118	TIDELANDS OIL PRODUCTION COMPANY ETAL	2003	NOx
68122	TIDELANDS OIL PRODUCTION COMPANY ETAL	2003	NOx
83102	LIGHT METALS INC	2003	NOx
94872	METAL CONTAINER CORP	2003	NOx
96587	TEXOLLINI INC	2003	NOx
98812	RMS FOUNDATION INC	2003	NOx
101369	VINTAGE PETROLEUM INC	2003	NOx
104571	E & J TEXTILES	2003	NOx
110982	COMMONWEALTH ALUMINUM CONCAST	2003	NOx
115449	PLAYA PHASE I COMMERCIAL LAND, LLC	2003	NOx
115536	AES REDONDO BEACH	2003	NOx
119104	CALMAT CO	2003	NOx
119907	BERRY PETROLEUM	2003	NOx
124838	EXIDE TECHNOLOGIES	2003	SOx
125579	DIRECTV	2003	NOx
129238	XYRON INC	2003	NOx
135978	NUEVO ENERGY COMPANY	2003	NOx
137520	PACIFIC TERMINALS, LLC	2003	NOx
800037	DEMENNO/KERDOON	2003	NOx
800080	LUNDAY THAGARD	2003	NOx
800181	CAL PORTLAND CEMENT	2003	SOx
800182	RIVERSIDE CEMENT COMPANY	2003	SOx
800240	INLAND CONTAINER CORP	2003	NOx
800373	CENCO REFINING COMPANY	2003	NOx
800419	PACIFIC TERMINALS LLC	2003	NOx
800420	PACIFIC TERMINALS LLC	2003	NOx
3704	ALL AMERICAN ASPHALT	2004	NOx
12428	NATIONAL GYPSUM	2004	NOx
15504	SCHLOSSER FORGE CO	2004	NOx
15544	REICHHOLD INC	2004	NOx
17623	LOS ANGELES ATHLETIC CLUB	2004	NOx
20203	SCOPE PRODUCTS INC, DEXT CO	2004	NOx
38872	DOANE PRODUCTS CO	2004	NOx
42630	UNION CARBIDE/PRAXAIR	2004	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
82727	SMURFIT NEWSPRINT CORPORATION	2004	NOx
83102	LIGHT METALS INC	2004	NOx
94872	METAL CONTAINER CORP	2004	NOx
96587	TEXOLLINI INC	2004	NOx
104012	CALRESOURCES (AERA) OCS	2004	NOx
107653	CALMAT CO	2004	NOx
114997	RAYTHEON SYSTEMS	2004	NOx
115041	RAYTHEON SYSTEMS	2004	NOx
125579	DIRECTV	2004	NOx
127299	WILDFLOWER ENERGY LP/INDIGO ENERGY FAC	2004	NOx
129238	XYRON INC	2004	NOx
135974	NUEVO ENERGY COMPANY	2004	NOx
137520	PACIFIC TERMINALS, LLC	2004	NOx
137977	FIVE PLANTS ASSOCIATES, A CAL LTD PT	2004	NOx
138568	CALIFORNIA DROP FORGE, INC	2004	NOx
800037	DEMENNO/KERDOON	2004	NOx
800080	LUNDAY THAGARD	2004	NOx
800182	RIVERSIDE CEMENT COMPANY	2004	SOx
800362	CONOCOPHILLIPS COMPANY	2004	NOx
800372	EQUILON ENTER. LLC, SHELL OIL PROD. US	2004	NOx
800373	CENCO REFINING COMPANY	2004	NOx
800416	PACIFIC TERMINALS, LLC	2004	NOx
2083	SUPERIOR INDUSTRIES	2005	NOx
3029	MATCHMASTER DYEING & FINISHING	2005	NOx
3585	R.R. DONNELLEY & SONS	2005	NOx
11435	THE PQ CORP	2005	NOx
12155	ARMSTRONG WORLD INDUSTRIES INC	2005	NOx
14229	LORBER INDUSTRIES OF CALIFORNIA	2005	NOx
14736	THE BOEING COMPANY	2005	NOx
15504	SCHLOSSER FORGE CO	2005	NOx
15544	REICHHOLD INC	2005	NOx
16978	CLOUGHERTY PACKAGING CO., FARMER JOHN	2005	NOx
20203	SCOPE PRODUCTS INC, DEXT CO	2005	NOx
38872	DOANE PRODUCTS CO	2005	NOx
42630	UNION CARBIDE/PRAXAIR	2005	NOx
74424	ANGELICA TEXTILE SERVICES	2005	NOx
83102	LIGHT METALS INC	2005	NOx
89429	PARADISE TEXTILE CO	2005	NOx
101977	SIGNAL HILL PETROLEUM INC	2005	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
104012	CALRESOURCES (AERA) OCS	2005	NOx
104571	E & J TEXTILES	2005	NOx
106325	HARBOR COGENERATION CO.	2005	NOx
113240	BLACK HILLS ONTARIO LLC	2005	NOx
114997	RAYTHEON SYSTEMS	2005	NOx
115041	RAYTHEON SYSTEMS	2005	NOx
119907	BERRY PETROLEUM	2005	NOx
124723	GREKA OIL & GAS, INC	2005	NOx
129238	XYRON INC	2005	NOx
143740	DCOR LLC	2005	NOx
800037	DEMENNO/KERDOON	2005	NOx
800080	LUNDAY THAGARD	2005	NOx
800182	RIVERSIDE CEMENT COMPANY	2005	NOx/SOx
800196	AMERICAN AIRLINES INC	2005	NOx
800210	CONEXANT SYSTEMS INC	2005	NOx
800373	CENCO REFINING COMPANY	2005	NOx
800393	VALERO WILMINGTON ASPHALT PLANT	2005	NOx
136	PRESS FORGE	2006	NOx
2083	SUPERIOR INDUSTRIES	2006	NOx
3585	R.R. DONNELLEY & SONS	2006	NOx
5998	ALL AMERICAN ASPHALT	2006	NOx
11034	CENTRAL PLANTS	2006	NOx
15164	HIGGINS BRICK CO	2006	NOx
15504	SCHLOSSER FORGE CO	2006	NOx
17623	LOS ANGELES ATHLETIC CLUB	2006	NOx
22364	ITT INDUSTRIES, CANNON	2006	NOx
38872	DOANE PRODUCTS CO	2006	NOx
40196	GUARDIAN INDUSTRIES INC.	2006	NOx
104571	E & J TEXTILES	2006	NOx
108701	BALL FOSTER GLASS	2006	SOx
113240	BLACK HILLS ONTARIO LLC	2006	NOx
124838	EXIDE TECHNOLOGIES	2006	NOx
127299	WILDFLOWER ENERGY LP/INDIGO ENERGY FAC	2006	NOx
129497	THUMS LONG BEACH CO	2006	NOx
129810	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	2006	NOx
132071	DEAN FOODS CO. OF CALIFORNIA	2006	NOx
139010	RIPON COGEN LLC	2006	NOx
143738	DCOR LLC	2006	NOx
143739	DCOR LLC	2006	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
800026	ULTRAMAR INC.	2006	SOx
800037	DEMENNO/KERDOON	2006	NOx
800080	LUNDAY THAGARD	2006	NOx
800182	RIVERSIDE CEMENT COMPANY	2006	SOx
800210	CONEXANT SYSTEMS INC	2006	NOx
800373	CENCO REFINING COMPANY	2006	NOx
2083	SUPERIOR INDUSTRIES	2007	NOx
3585	R.R. DONNELLEY & SONS	2007	NOx
4477	SCE - PEBBLEY BEACH	2007	NOx
5998	ALL AMERICAN ASPHALT	2007	NOx
7411	DAVIS WIRE CORP	2007	NOx
16978	CLOUGHERTY PACKAGING CO., FARMER JOHN	2007	NOx
17956	WESTERN METAL DECORATING CO	2007	NOx
18931	TAMCO	2007	NOx
23589	INTERNATIONAL EXTRUSION CORP	2007	NOx
35302	OWENS CORNING FIBERGLAS	2007	NOx
38872	DOANE PRODUCTS CO	2007	NOx
94872	METAL CONTAINER CORP	2007	NOx
94930	CARGILL INC	2007	NOx
115130	VERTIS, INC	2007	NOx
115241	BOEING SATELLITE SYSTEMS INC	2007	NOx
119907	BERRY PETROLEUM	2007	NOx
141012	MILLER BREWERIES WEST LP	2007	NOx
143738	DCOR LLC	2007	NOx
143741	DCOR LLC	2007	NOx
145188	BLUE HERON PAPER CO OF CALIF LLC	2007	NOx
800026	ULTRAMAR INC.	2007	SOx
800094	EXXONMOBIL OIL CORPORATION	2007	NOx
800167	NORTHROP GRUMMAN CORP	2007	NOx
800182	RIVERSIDE CEMENT COMPANY	2007	NOx/SOx
800363	CONOCOPHILLIPS CO	2007	NOx
800373	CENCO REFINING COMPANY	2007	NOx
3585	R.R. DONNELLEY & SONS	2008	NOx
7411	DAVIS WIRE CORP	2008	NOx
14049	MARUCHAN INC	2008	NOx
14736	THE BOEING COMPANY	2008	NOx
15544	REICHHOLD INC	2008	NOx
20543	REDCO II	2008	NOx
35302	OWENS CORNING FIBERGLAS	2008	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Facility Name	Compliance Year	Emittant
56940	CITY OF ANAHEIM/COMB TURBINE GEN STATION	2008	NOx
65384	CRITERION CATALYST	2008	NOx
105903	PRIME WHEEL	2008	NOx
125579	DIRECTV	2008	NOx
132071	DEAN FOODS CO. OF CALIFORNIA	2008	NOx
143740	DCOR LLC	2008	NOx
151178	PACIFIC ENERGY RESOURCES, LTD.	2008	NOx
153478	MEGA PRINTEX INC	2008	NOx
800182	RIVERSIDE CEMENT COMPANY	2008	SOx
800373	CENCO REFINING COMPANY	2008	NOx

APPENDIX E REPORTED JOB IMPACTS ATTRIBUTED TO RECLAIM

Each year, RECLAIM facility operators are asked to provide employment data in their APEP reports. The report forms ask company representatives to quantify job increases and/or decreases, and to report the positive and/or negative impacts of the RECLAIM program on employment at their facilities.

The detailed information for facilities reporting that RECLAIM contributed to job gains or losses during their 2008 compliance years (January 1 through December 31, 2008 for cycle 1 facilities and July 1, 2008 through June 30, 2009 for cycle 2 facilities) is summarized below:

Facilities with actual job gains or losses attributed to RECLAIM:

Facility ID	40034
Facility Name	Bentley Prince Street Inc.
City and County	City of Industry, Los Angeles County
SIC	2273
Pollutant(s)	NOx
Cycle	1
Job Gain	0
Job Loss	136
Comments	Fees and costs of compliance resulted in a competitive disadvantage with companies outside of RECLAIM, including their own sister company located outside the state of California. ¹

Facility ID	142267
Facility Name	FS Precision Tech Inc.
City and County	Compton, Los Angeles County
SIC	3369
Pollutant(s)	NOx
Cycle	2
Job Gain	0
Job Loss	3
Comments	Facility had to reduce overhead and decided to do so by cutting jobs as they could not avoid RECLAIM costs. The facility estimated that 3 jobs were lost in the attempt to reduce costs.

¹ AQMD staff has reviewed information available to AQMD for this facility and found that the facility has been in the RECLAIM program for the last 15 years, has had relatively steady emissions and adequate RTC allocations to cover its emissions in the last several years, and was not a structural buyer. Based on this, it can be concluded that the facility would most likely have had enough RTCs to cover its future emissions. Therefore, the AQMD could not identify any specific reason why the RECLAIM program would have caused the job losses reported by this facility.

ANNUAL RECLAIM AUDIT

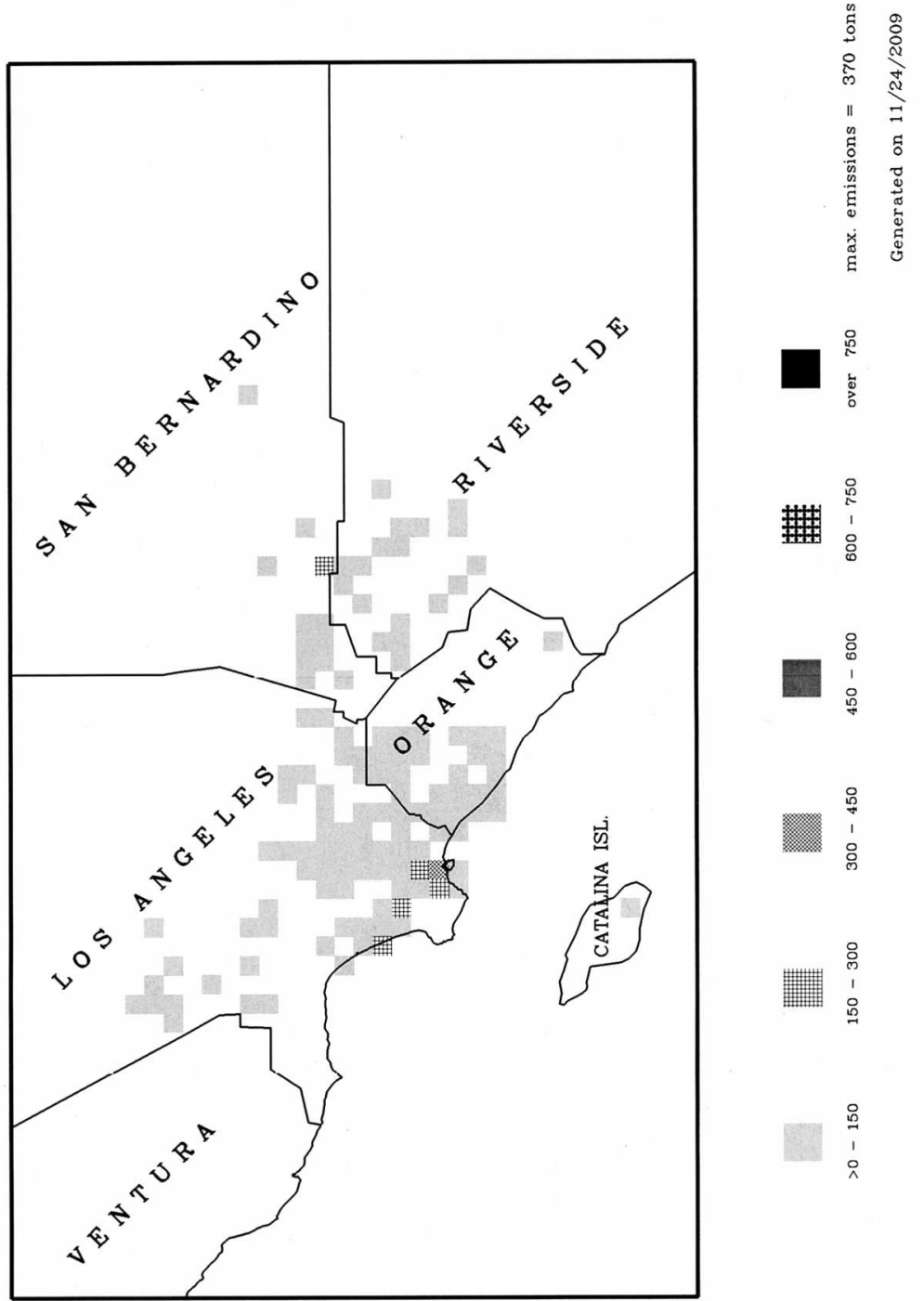
Facility ID 800074
Facility Name LA City, DWP Haynes Generating Station
City and County Long Beach, Los Angeles County
SIC 4911
Pollutant(s) NOx
Cycle 1
Job Gain 2
Job Loss 0
Comments Facility cited monitoring, reporting and recordkeeping, as well as additional maintenance for compliance per the requirements of the RECLAIM program, as the reasons for job gains.

Facility ID 800089
Facility Name ExxonMobil Oil Corporation
City and County Torrance, Los Angeles County
SIC 2911
Pollutant(s) NOx/SOx
Cycle 1
Job Gain 1
Job Loss 0
Comment Facility added an additional employee to lessen the workload on the existing staff and to allow more flexibility in scheduling.

APPENDIX F
QUARTERLY NO_x EMISSION MAPS

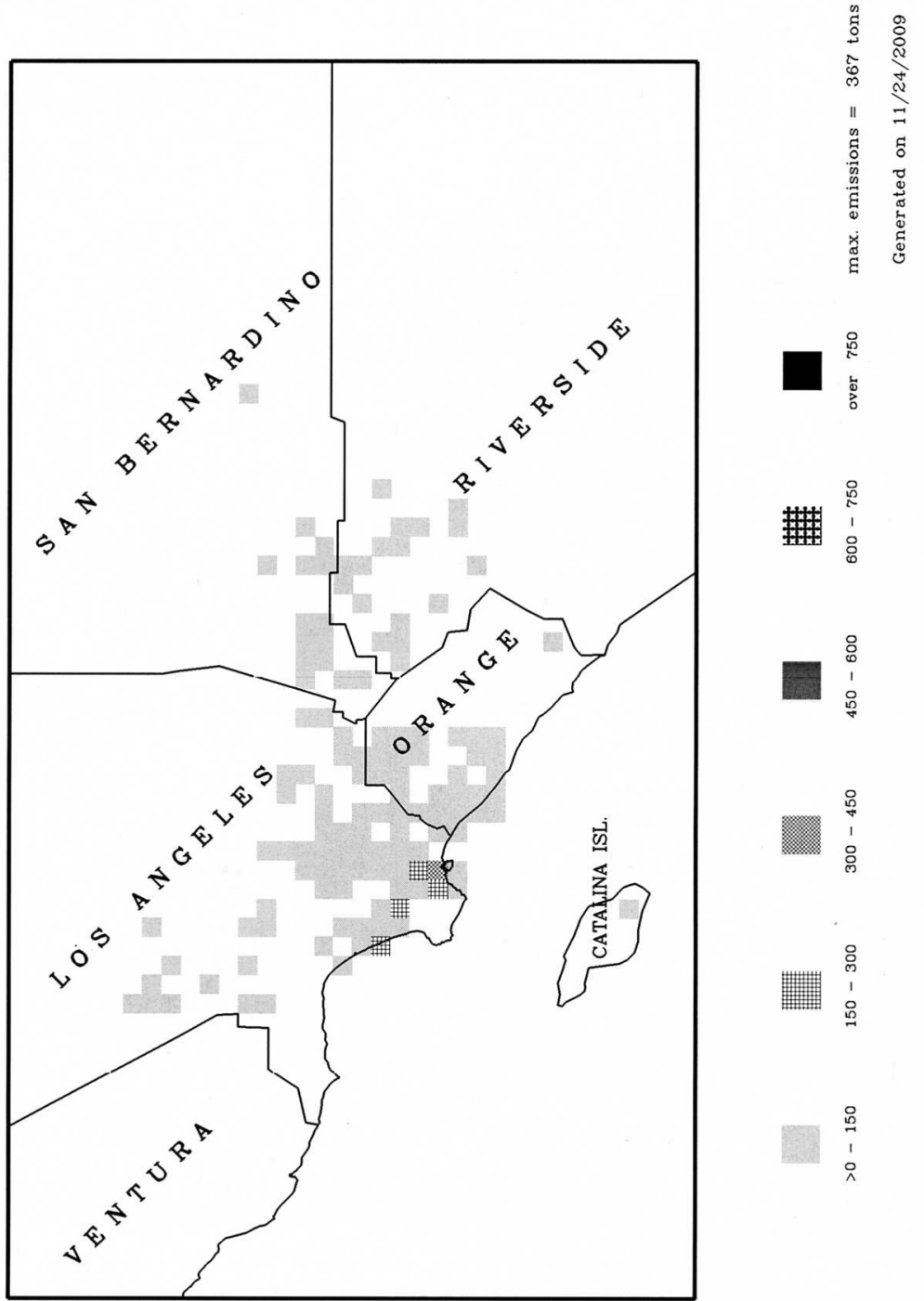
RECLAIM Facilities

Certified NOx Emissions (Tons) from 01/2008 to 03/2008



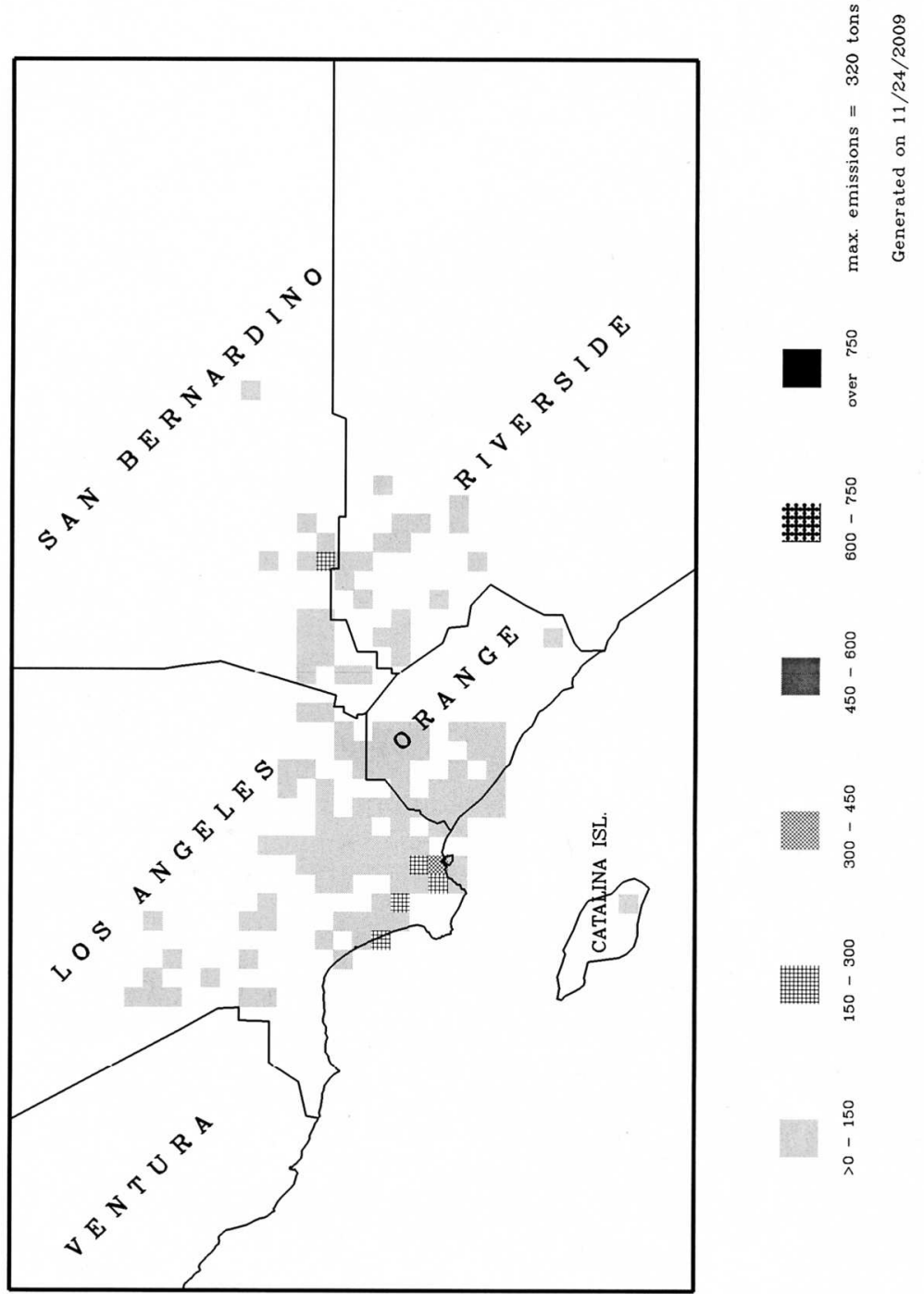
RECLAIM Facilities

Certified NOx Emissions (Tons) from 04/2008 to 06/2008



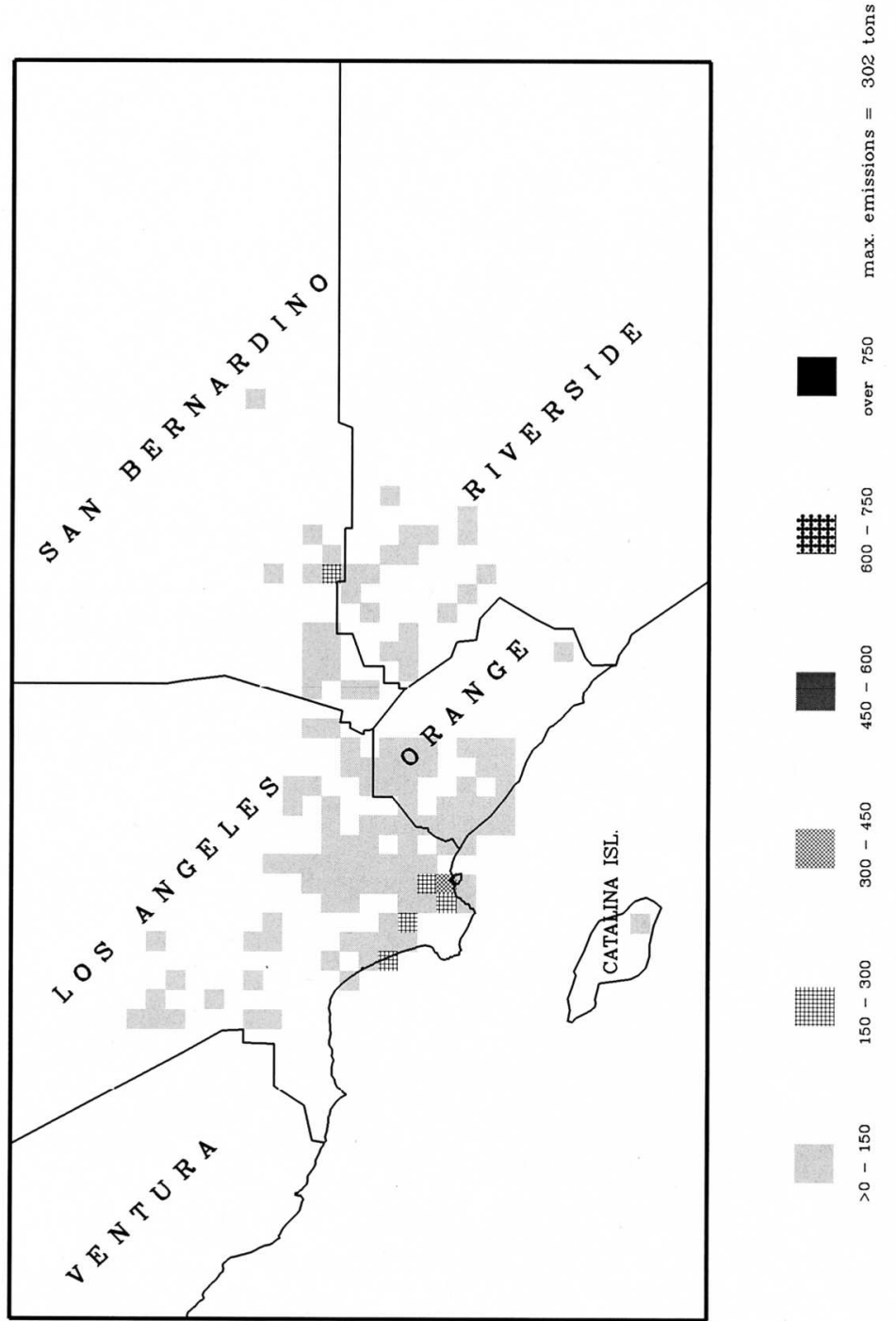
RECLAIM Facilities

Certified NOx Emissions (Tons) from 07/2008 to 09/2008



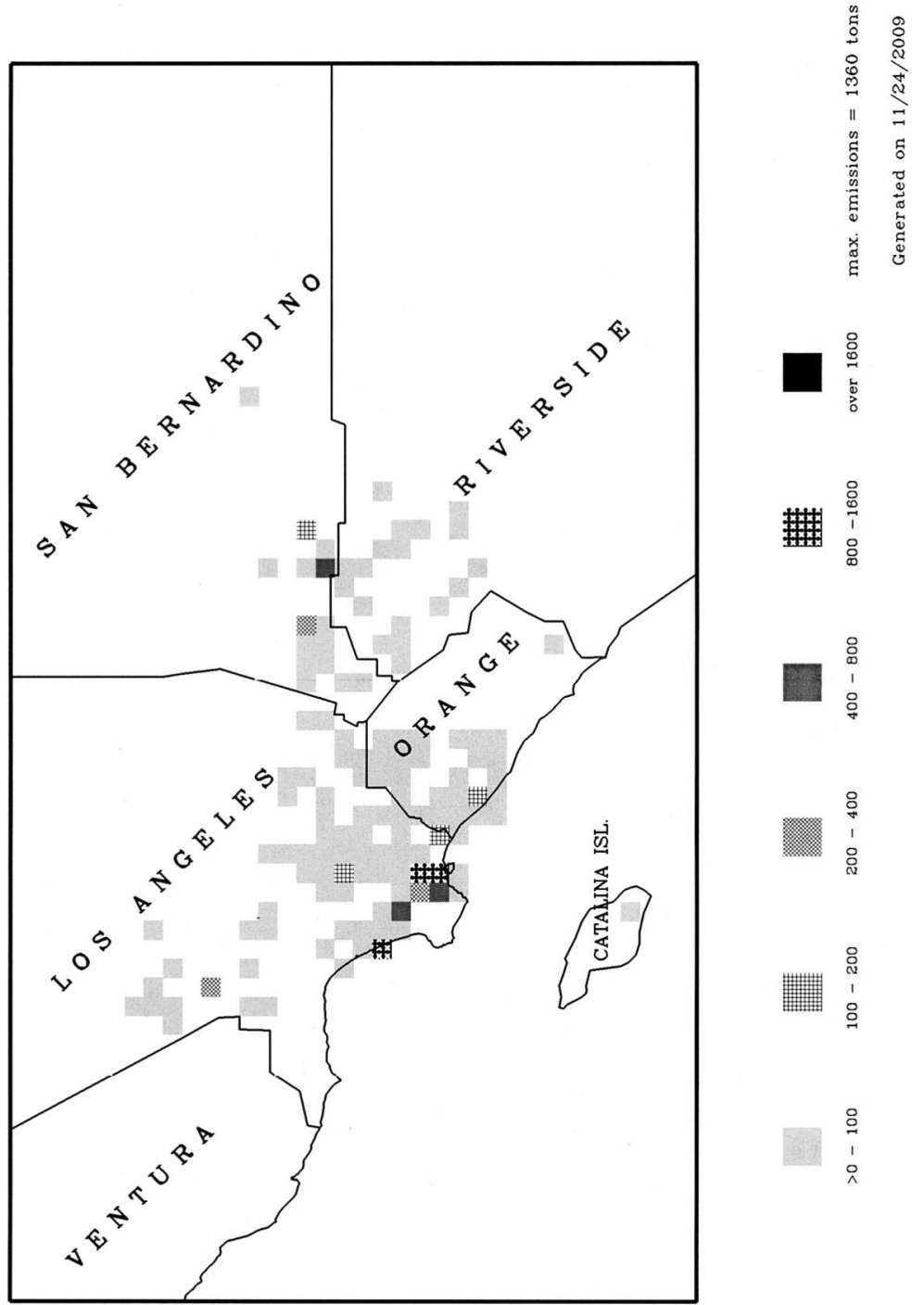
RECLAIM Facilities

Certified NOx Emissions (Tons) from 10/2008 to 12/2008



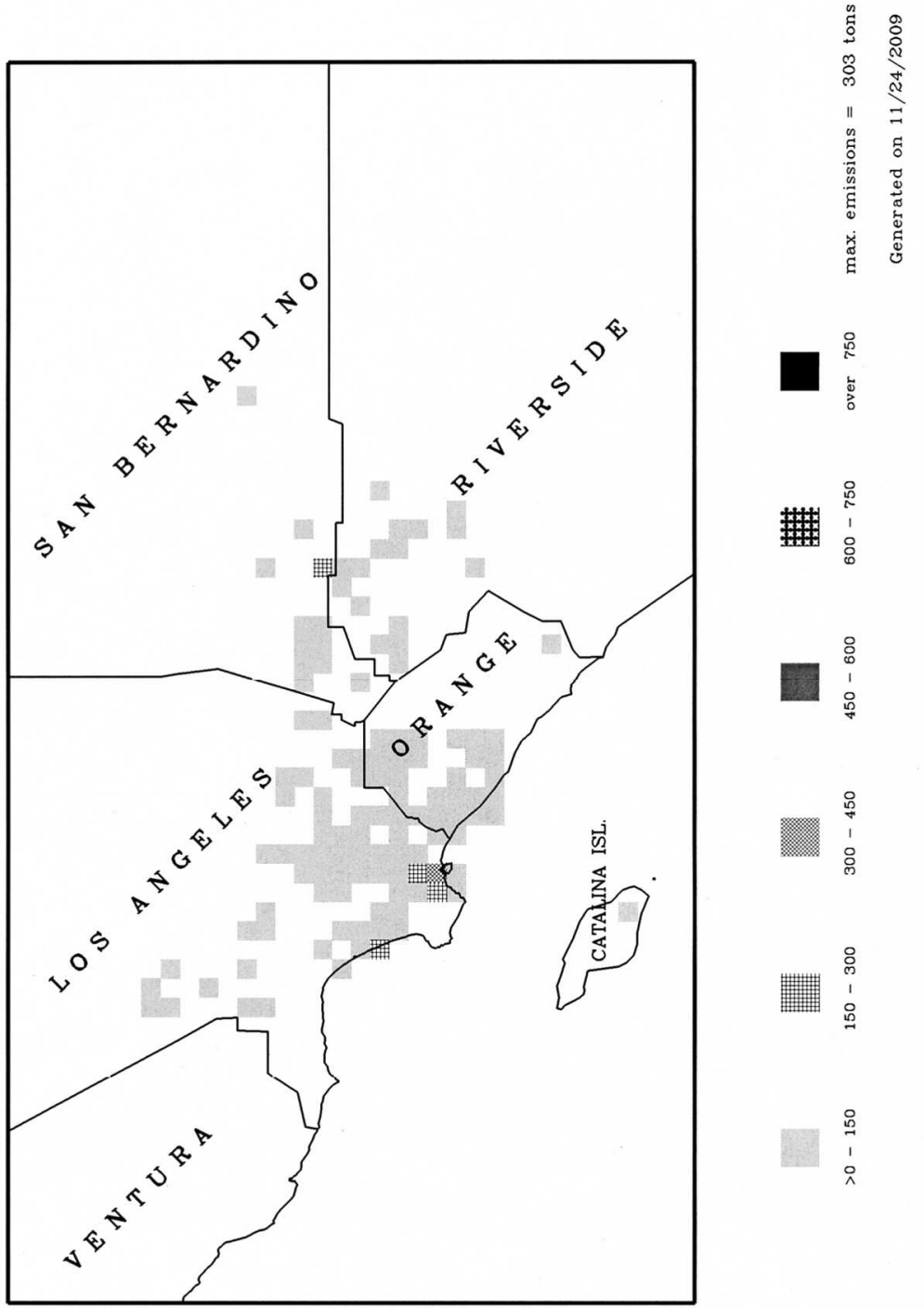
RECLAIM Facilities

Certified NOx Emissions (Tons) Year to date (12/31/2008)



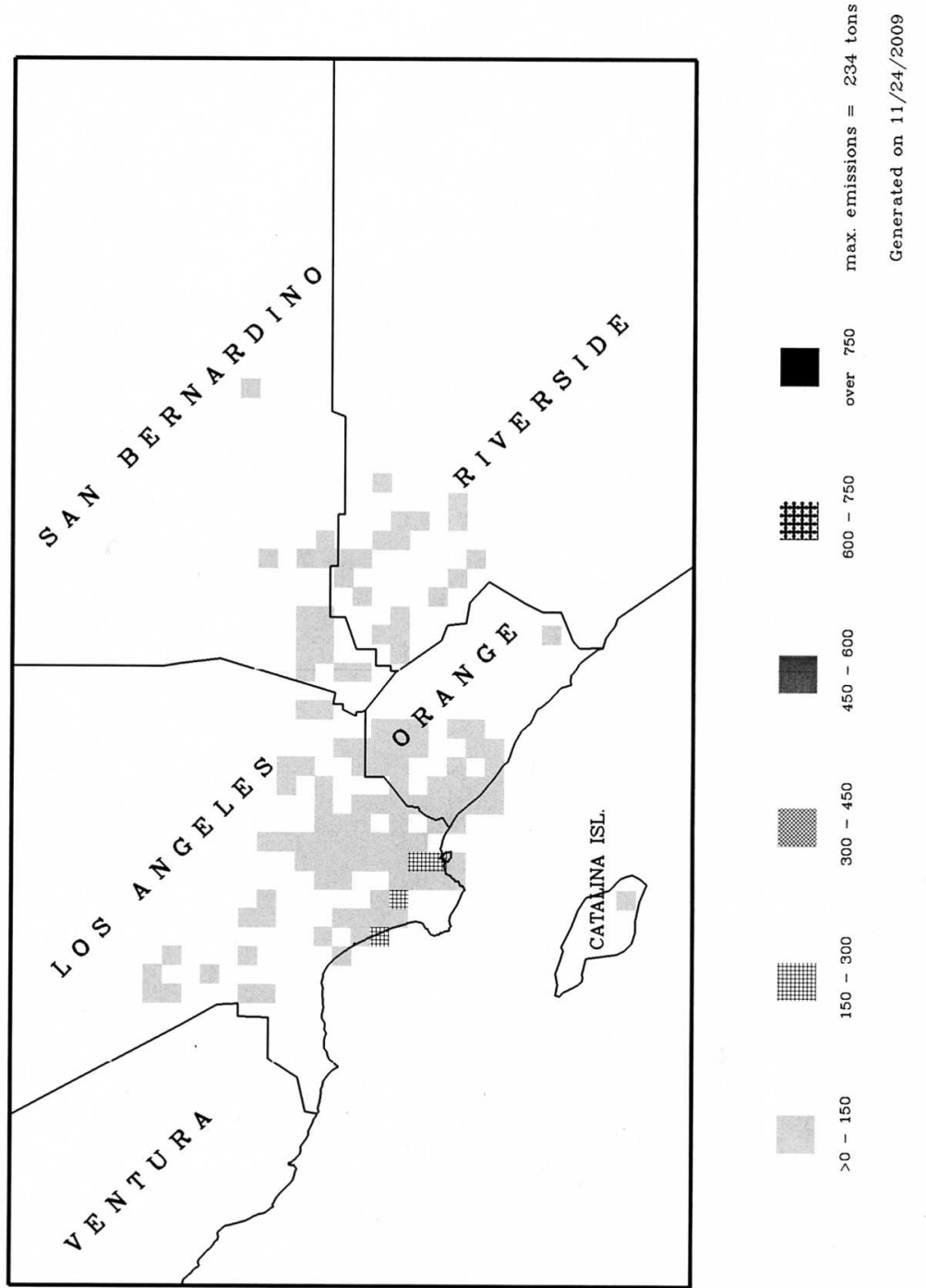
RECLAIM Facilities

Certified NOx Emissions (Tons) from 01/2009 to 03/2009



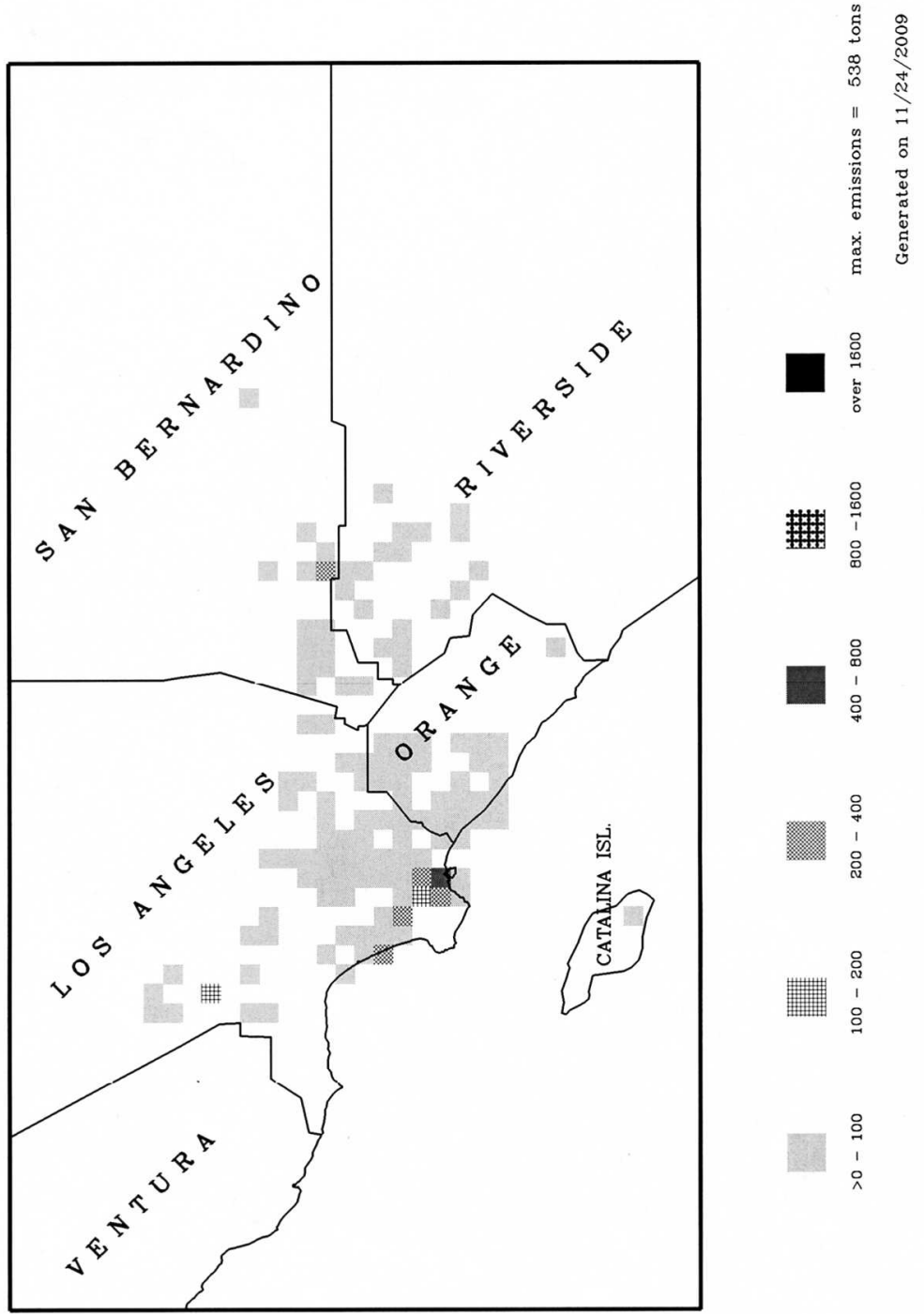
RECLAIM Facilities

Certified NOx Emissions (Tons) from 04/2009 to 06/2009



RECLAIM Facilities

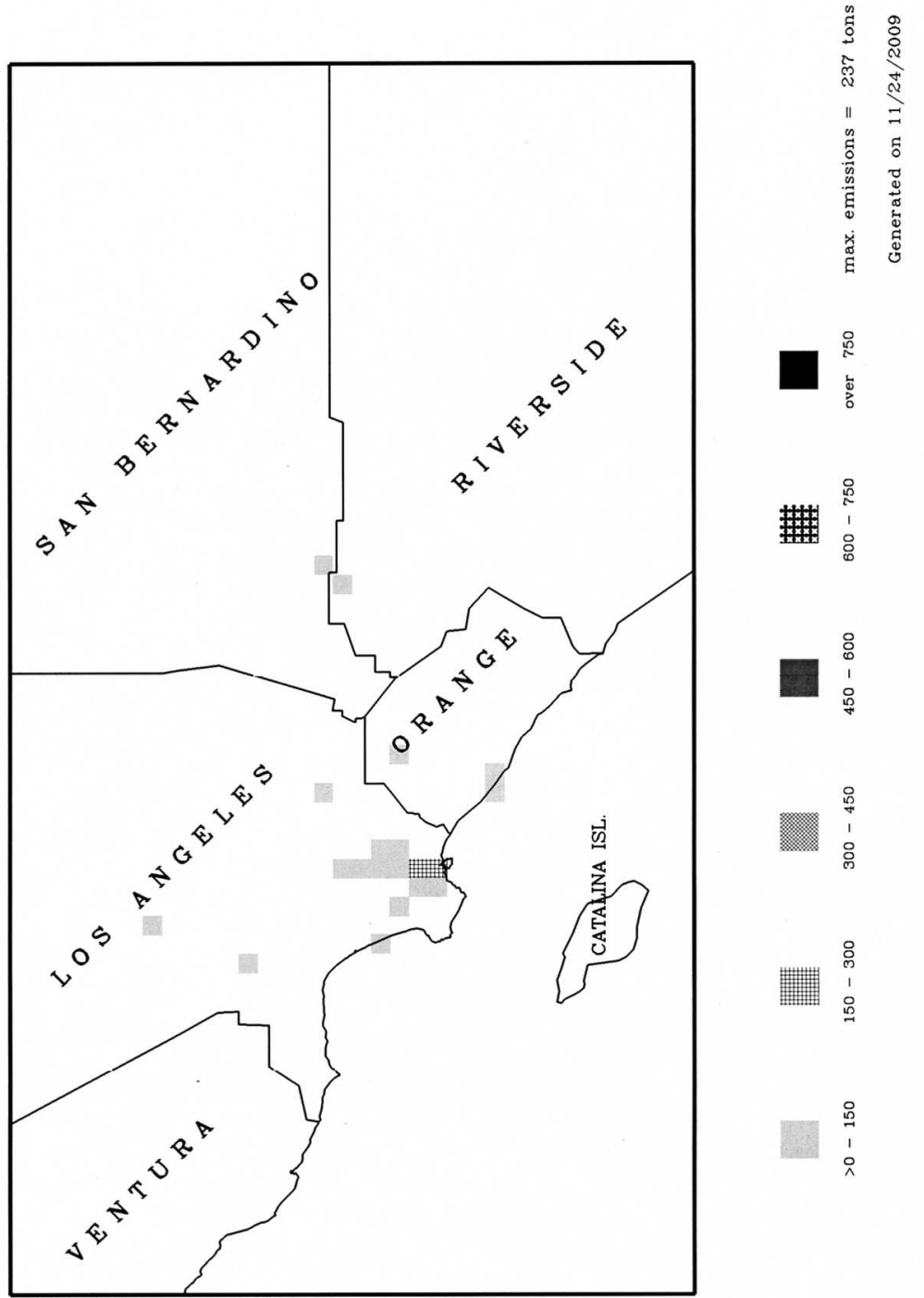
Certified NOx Emissions (Tons) Year to date (06/30/2009)



APPENDIX G
QUARTERLY SO_x EMISSION MAPS

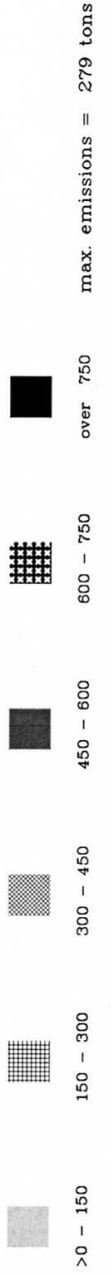
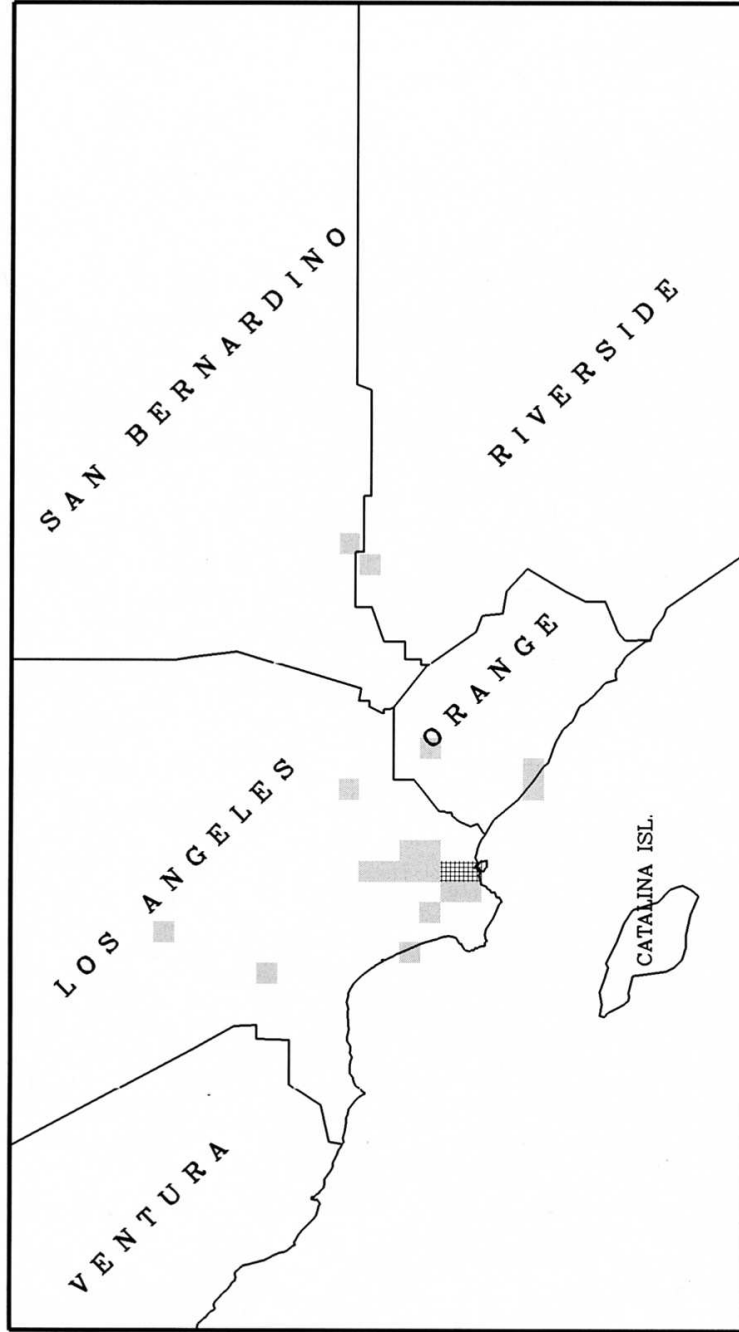
RECLAIM Facilities

Certified SOx Emissions (Tons) from 01/2008 to 03/2008



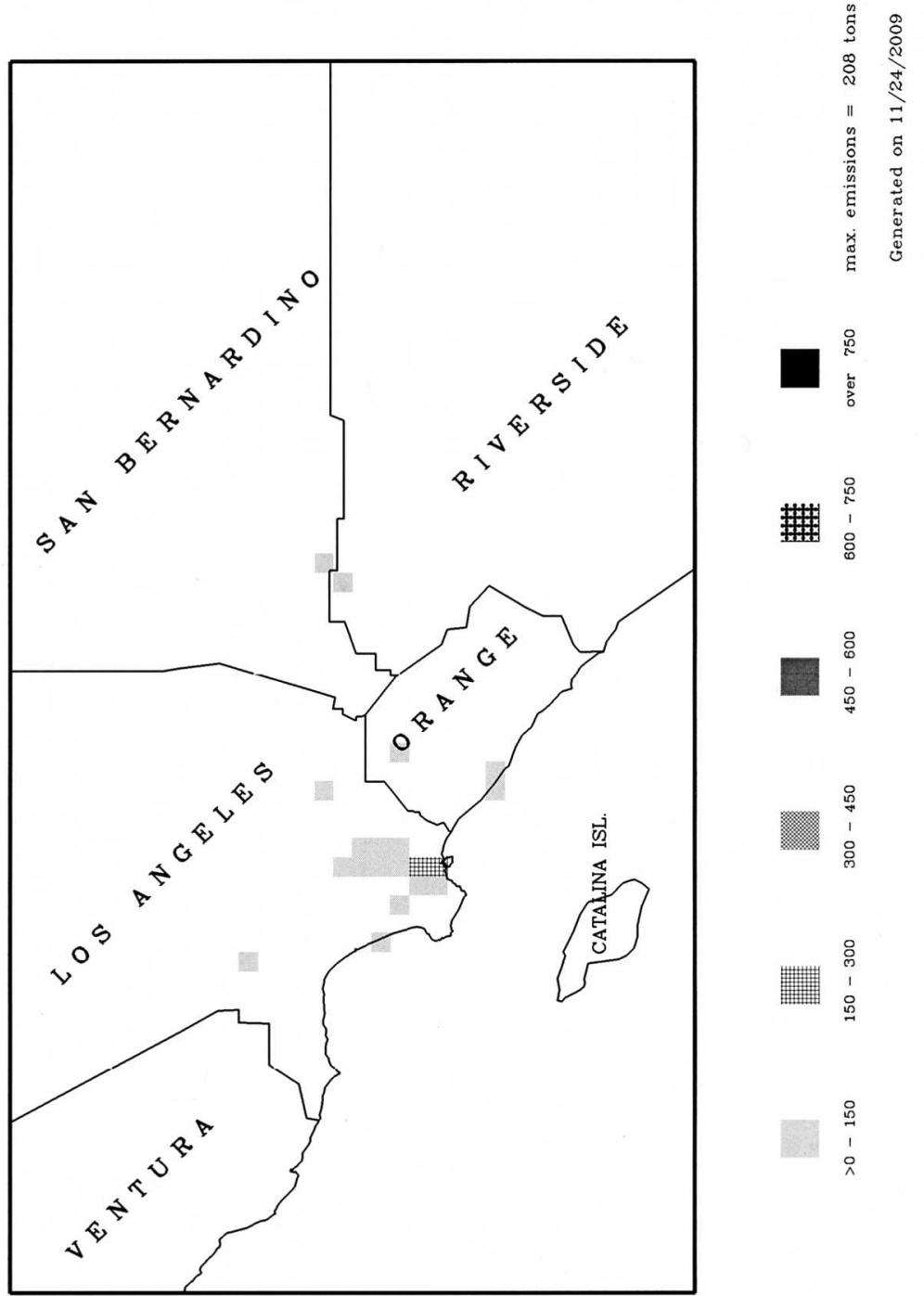
RECLAIM Facilities

Certified SOx Emissions (Tons) from 04/2008 to 06/2008



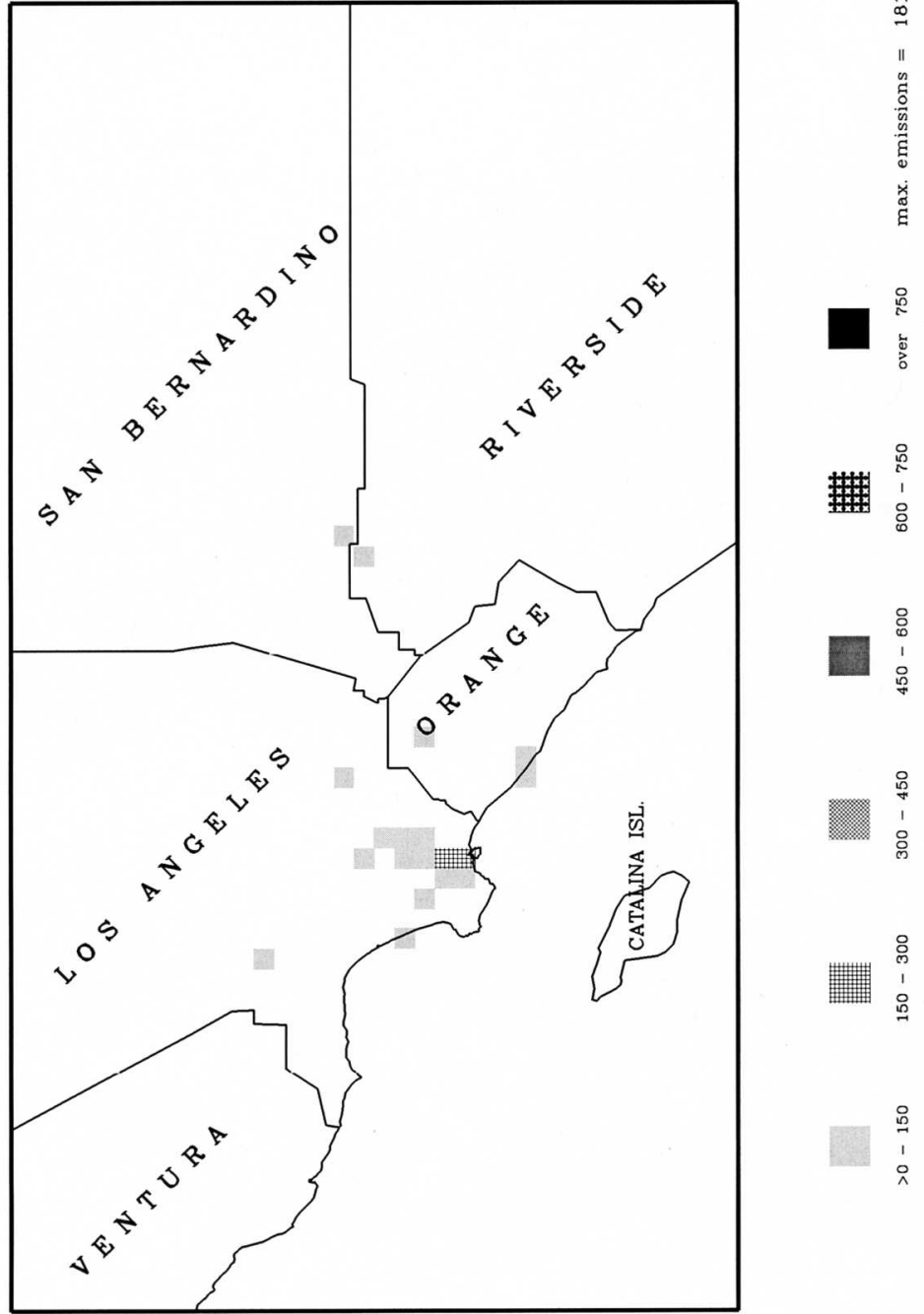
RECLAIM Facilities

Certified SOx Emissions (Tons) from 07/2008 to 09/2008



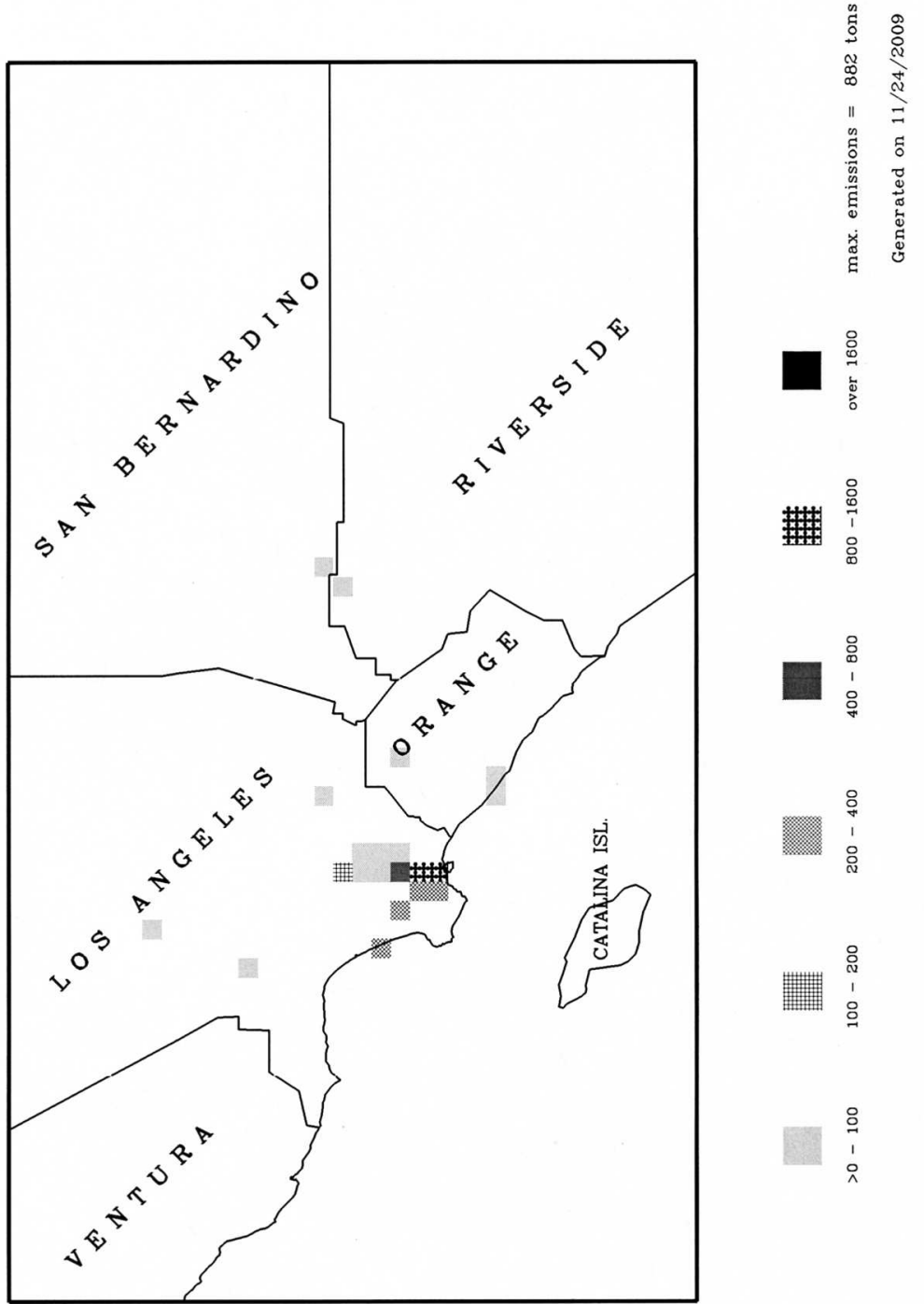
RECLAIM Facilities

Certified SOx Emissions (Tons) from 10/2008 to 12/2008



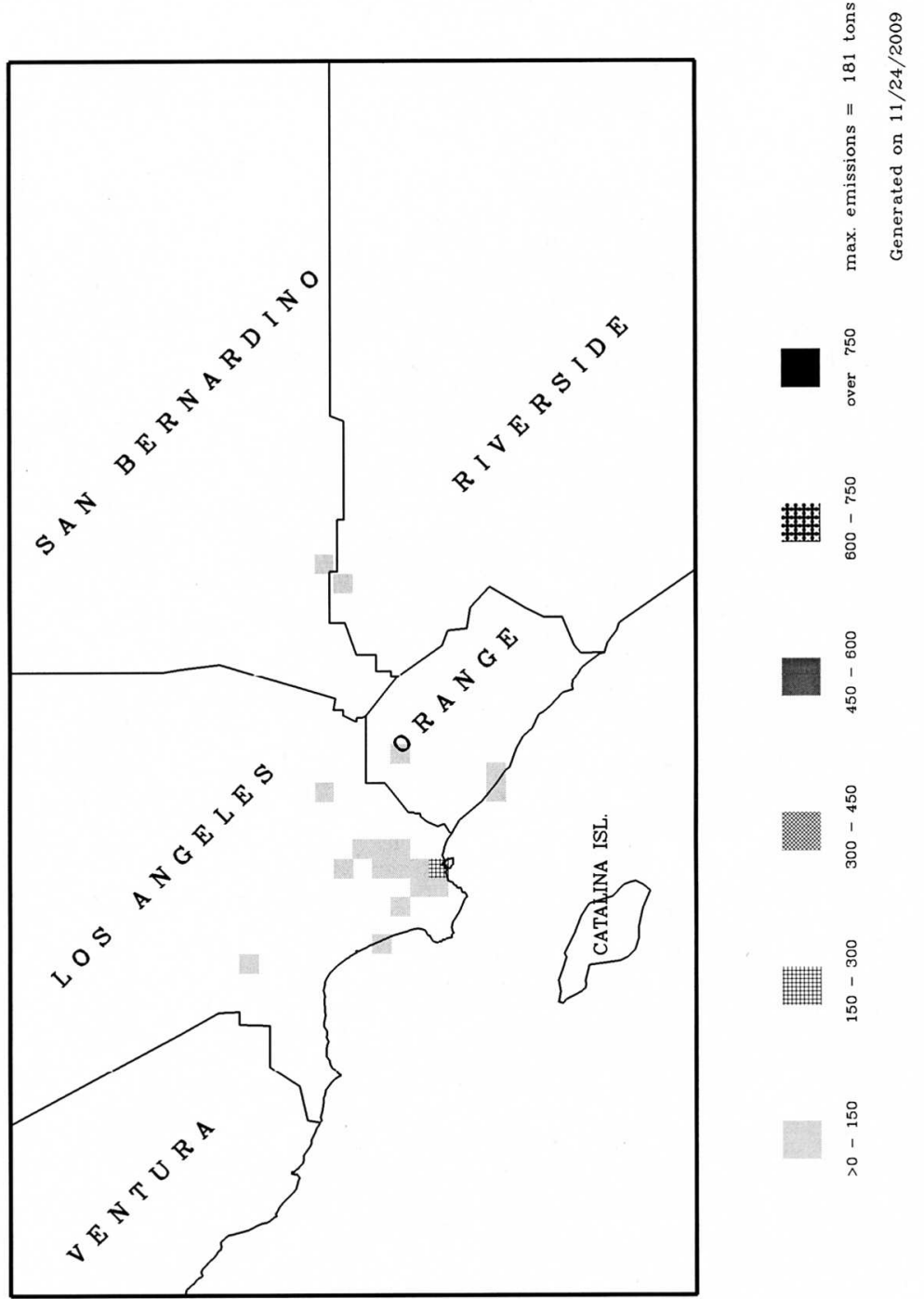
RECLAIM Facilities

Certified SOx Emissions (Tons) Year to date (12/31/2008)



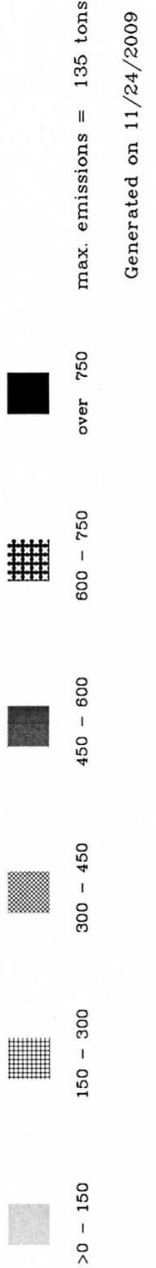
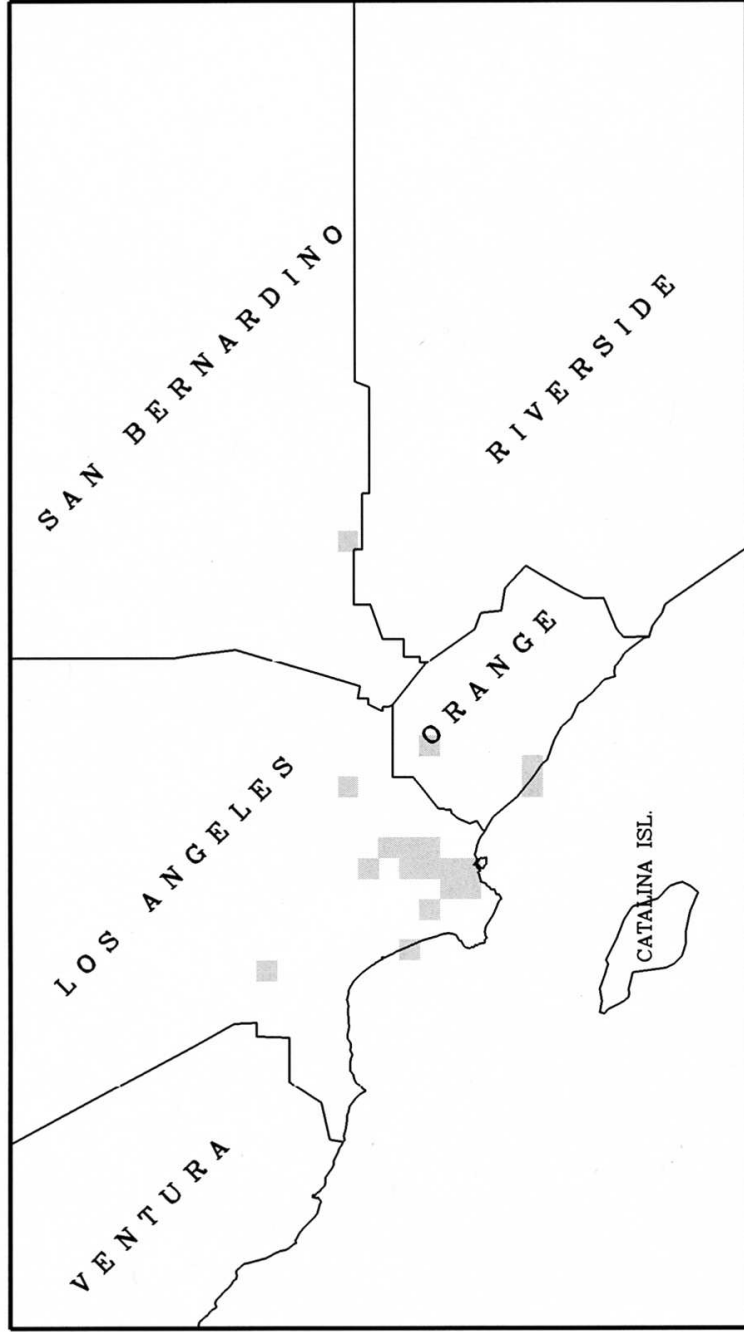
RECLAIM Facilities

Certified SOx Emissions (Tons) from 01/2009 to 03/2009



RECLAIM Facilities

Certified SOx Emissions (Tons) from 04/2009 to 06/2009



RECLAIM Facilities

Certified SOx Emissions (Tons) Year to date (06/30/2009)

