

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Annual RECLAIM Audit Report for the 2002 Compliance Year

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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 more comprehensive three-year audit to ensure that RECLAIM is meeting all state and federal requirements and other performance criteria. This document constitutes the Rule 2015 annual audit for the 2002 compliance year (January 2002 through June 2003). A program review of the RECLAIM Reserve is also included pursuant to Rule 2020 – RECLAIM Reserve.

Chapter 1: RECLAIM Universe

When RECLAIM was adopted in October 1993, 394 facilities were identified as the initial “universe” of sources subject to the requirements of RECLAIM. Between program adoption and June 30, 2002, 92 facilities were included into the program, 66 were excluded from the program, and 90 facilities ceased operation. Thus, the RECLAIM universe consisted of 330 facilities on July 1, 2002. During Compliance Year 2002, seven facilities were included into the RECLAIM universe, one was excluded from the program, and four facilities shut down. These changes resulted in a net increase of two facilities in the universe, bringing the total number of facilities to 332 at the end of Compliance Year 2002. All of these changes occurred within the NOx universe only. There were no changes to the SOx universe.

Chapter 2: RTC Allocations and Trading

The primary source of RTCs available for trading is the aggregate of all allocations issued to RECLAIM facilities. These RECLAIM allocations incorporated emission reduction requirements in AQMD rules and the control measures and projections specified in the Air Quality Management Plan (AQMP). RTCs can also be converted from credits generated under other AQMD rules – Mobile Source Emission Reduction Credits (MSERCs) and Area Source Credits (ASCs). During Calendar Year 2003, there were a net increase of 35.5 tons of NOx RTCs and a decrease of 0.2 ton of SOx RTC for Compliance Year 2002.

The Calendar Year 2003 trading market continues to be active with 798 registered RTC transactions. This is higher than the annual activities for Calendar Years 1994 through 1999, but lower than the record setting 1,255 transactions in Calendar Year 2001. RTCs valued at a total of \$32.0 million were traded during Calendar Year 2003. Since the inception of the RECLAIM program in 1994, \$682 million were traded in the RTC trading market.

NOx RTC prices continued a declining trend in Calendar Year 2003 since the rule amendment in May 2001. NOx RTCs were traded under \$1.00 per pound toward the end of the reconciliation period for each of the two cycles in the 2002 Compliance Year. During Calendar Year 2003, annual average prices for Compliance Year 2002 and 2003 SOx RTCs also declined. There were only a few trades involving SOx RTCs for compliance years 2004 and beyond. Average prices for these RTCs were higher when compared to those traded in 2002. All Annual average prices for NOx or SOx RTCs were under the \$15,000 per ton level set under Rule 2015.

Chapter 3: Emissions Reductions

Aggregate NOx and SOx emissions from RECLAIM facilities continued to decrease from the inception of RECLAIM through Compliance Year 2002. RECLAIM is back on track to achieving the reduction goals after the effect of the California 2000 energy crisis subsided. Compliance Year 2002 aggregate NOx emissions from all RECLAIM facilities were below allocations by more than 20 percent. On the other hand, aggregate SOx emissions were under allocations by slightly more than 10 percent.

In response to the energy crisis' effects on the RECLAIM NOx market, the AQMD Governing Board adopted rule amendments in May 2001 to stabilize RTC prices. The amendments included provisions to curtail RTC demand as well as increasing RTC supply. Rule 2009 requires power producing facilities to install Best Available Retrofit Control Technologies and to file compliance plans to project emissions through Compliance Year 2005. Rule 2009.1 requires compliance plans or forecast reports from certain RECLAIM facilities to show how they would comply with annual allocations through Compliance Year 2005. In Compliance Year 2002 actual emissions from facilities subject to these two rules were lower than those projected under compliance plans and forecast reports. The Governing Board also adopted Rule 2020 – RECLAIM Reserve, which established the RECLAIM Air Quality Investment Program (AQIP), the Emissions Mitigation Fee Program, and the State Emission Reduction Credit Bank. These three programs were set up to provide eligible facilities with emission reduction credits. In Compliance Year 2002, no facility requested emission reduction from any of these three programs.

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 the federal and state NSR requirements while providing flexibility to facilities in managing their operations and allowing new sources into the program. Review of NSR activity in Calendar Year 2002 shows that four existing facilities joined the NOx program, while no facility joined the SOx program. These four facilities reported

no NSR activities during this period. However, 48 existing RECLAIM facilities reported NSR NOx emission increases due to expansion or modification. These data indicate that the RECLAIM program does not inhibit expansion and/or modification of sources at RECLAIM facilities.

RECLAIM is required to comply with federal NSR requirements for a 1.2-to-1 offset ratio for NOx and SOx emission increases on a programmatic basis. In Calendar Year 2002, RECLAIM provided an offset ratio of 209-to-1 for NOx on an aggregate basis, demonstrating federal equivalency. There were no NSR increases for RECLAIM SOx during Calendar Year 2002. Compliance with the federally required offset ratio also demonstrates compliance with the state requirement of no net emissions increases from new or modified sources. In addition, RECLAIM requires application of Best Available Control Technologies for all new or modified sources with emission increases.

Chapter 5: Compliance

During Compliance Year 2002, 347 RECLAIM facilities were in the RECLAIM program. Of these, 338 facilities (97 percent) complied with their NOx Allocations and 35 (95 percent) out of the 37 SOx facilities complied with their SOx Allocations. Preliminary results of the Compliance Year 2002 audits revealed that the overall RECLAIM NOx and SOx emission goals were met for this compliance year. However, not all facilities were determined to have complied with their individual allocations. NOx emissions in excess of individual facility NOx allocations totaled 55 tons and SOx emissions in excess of individual facility SOx allocations totaled 4 tons. The three main reasons for allocation exceedances were failure to purchase sufficient RTCs to reconcile with emissions, emission calculation errors, and failure to follow missing data procedures.

Chapter 6: Job Impacts

Job impacts resulting from the RECLAIM program during Compliance Year 2002 continue to be negligible when compared to the overall employment in the Basin. Five facilities claimed the RECLAIM program caused a total of 112 job losses. Furthermore, four RECLAIM facilities shut down or went out of business during Compliance Year 2002. None of facilities attributed their ceasing operations in part to RECLAIM.

Chapter 7: Air Quality and Public Health Impacts

The emissions reported by RECLAIM facilities from Compliance Years 1989 through 2002 are found to be in an overall downward trend. Quarterly NOx emissions remained relatively constant throughout Calendar Year 2002 except for a slight increase in the third quarter. This emissions trend is more apparent if emissions from power producing facilities were isolated. The trend of quarterly SOx emissions was the reverse of the quarterly NOx emissions trend. When quarterly NOx emissions increased, quarterly SOx emissions decreased, and vice versa. Furthermore, analysis of the geographical distribution of emissions during the first nine years of the program on a quarterly basis does not show any distinct shift in the geographical distribution of emissions.

The California Clean Air Act requires a 50 percent reduction in population exposure to ozone 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 attainment with the December 2000 target prior to 1994 and Riverside and San Bernardino Counties achieved attainment in 1996.

Air toxic health risk is primarily caused by emissions of VOCs and metals, rather than NO_x or SO_x emissions. Additionally, RECLAIM facilities are subject to the same air toxic regulations as other sources in the Basin. Therefore, it can be concluded that there is no toxic impact due to the implementation of the RECLAIM program beyond what would have occurred pursuant to the rules and control measures RECLAIM subsumed.

INTRODUCTION

The South Coast Air Quality Management District's Regional Clean Air Incentives Market program (RECLAIM) was adopted in October 1993 and replaces certain command-and-control regulations 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 requirements for clean air programs, 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, the RECLAIM rules include provisions for program audits in order to verify that the RECLAIM objectives are being met. The rules provide for both annual audits and a more comprehensive audit of the first three years of program implementation. The audit results are used to help determine whether any program modifications are appropriate.

The RECLAIM Program Three-Year Audit and Progress Report was presented to the Governing Board May 8, 1998. This report presents the annual audit and progress report of RECLAIM's ninth compliance year (January 1, 2002 through June 30, 2003), also known as the 2002 compliance year. As required by Rule 2015(b)(1), 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 RTC;
- Availability of RTCs;
- Toxic risk reductions;
- New Source Review permitting activity;
- Compliance issues;
- Emission trends/seasonal fluctuations; and
- Emission control requirement impacts on stationary sources in the program compared to other stationary sources identified in the AQMP.

The Annual Audit is organized into the following chapters:

1. RECLAIM Universe
This chapter discusses changes in the universe of RECLAIM sources that occurred during the 2001 compliance year.
2. RTC Allocations and Trading
This chapter summarizes changes in emissions allocations in the

RECLAIM universe, RTC trading activity, and the average annual price, availability, and supply of RTCs.

3. Emissions Reductions

This chapter assesses emissions trends and reductions for RECLAIM sources and emissions control requirement impacts on these sources compared to other stationary sources. The program review of the RECLAIM Reserve pursuant to Rule 2020(k) is also presented.

4. New Source Review Activity

This chapter summarizes NSR activity at RECLAIM facilities.

5. Compliance

This chapter discusses compliance activities and the compliance status of RECLAIM facilities and evaluates the effectiveness of AQMD's compliance program and the NO_x and SO_x monitoring, reporting, and recordkeeping protocols.

6. Job Impacts

This chapter addresses job impacts.

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.