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 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.

Background

Emissions increases from the construction of new or modified stationary sources in non-attainment areas are regulated by both federal and state NSR requirements to ensure that progress toward attainment of ambient air quality standards is not hampered. RECLAIM is designed to comply with federal and state NSR requirements without hindering facilities' ability to expand or modify their operations.

Sources in extreme non-attainment areas such as the South Coast Air Basin are required by Title 42, U.S.C. §7511a(e), to mitigate their emissions increases by providing emissions offsets at a 1.2-to-1 ratio or higher. Although RECLAIM allows a 1-to-1 offset ratio for emissions increases, RECLAIM complies with the federal offset requirement by demonstrating compliance with the 1.2-to-1 offset requirement on an aggregate basis. The annual reductions of aggregate allocations generate sufficient excess emissions reductions to mitigate the difference between the RECLAIM emissions offset ratio and the higher offset ratios required under federal law.

RECLAIM requires Best Available Control Technology (BACT) analysis for new or modified sources with emissions increases of RECLAIM pollutants. This provision demonstrates compliance with both the state and federal requirements regarding control technologies. In addition to offset and BACT requirements, RECLAIM subjects those RTC trades, which 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, as established in Health and Safety Code §40410.5. This annual audit report assesses NSR permitting activities for the 2002 calendar year to verify that programmatic compliance of RECLAIM with state and federal NSR requirements has been maintained.

NSR Activity

Evaluation of NSR data for Calendar Year 2002 indicates that RECLAIM facilities continue to successfully expand or modify their operations while complying with NSR requirements. Four existing facilities joined the NOx program, and no new or existing facilities joined the SOx program. There was no NOx NSR activity (i.e., increases) at the four facilities joined the RECLAIM this compliance year. An additional 48 existing RECLAIM facilities experienced a total of 148 tons of NOx NSR emission increases due to expansion or modification. Table 4-1 shows the NSR activity for RECLAIM facilities since the program inception in 1994.

Table 4-1
RECLAIM Facilities with NSR Activity

Facility Type	1994	1995	1996	1997	1998	1999	2000	2001	2002
Facilities New to RECLAIM	2	0	0	0	0	7	0	2	0
Existing RECLAIM Facilities with Expansions or Modifications	41	114	50	44	40	70	41	52	48

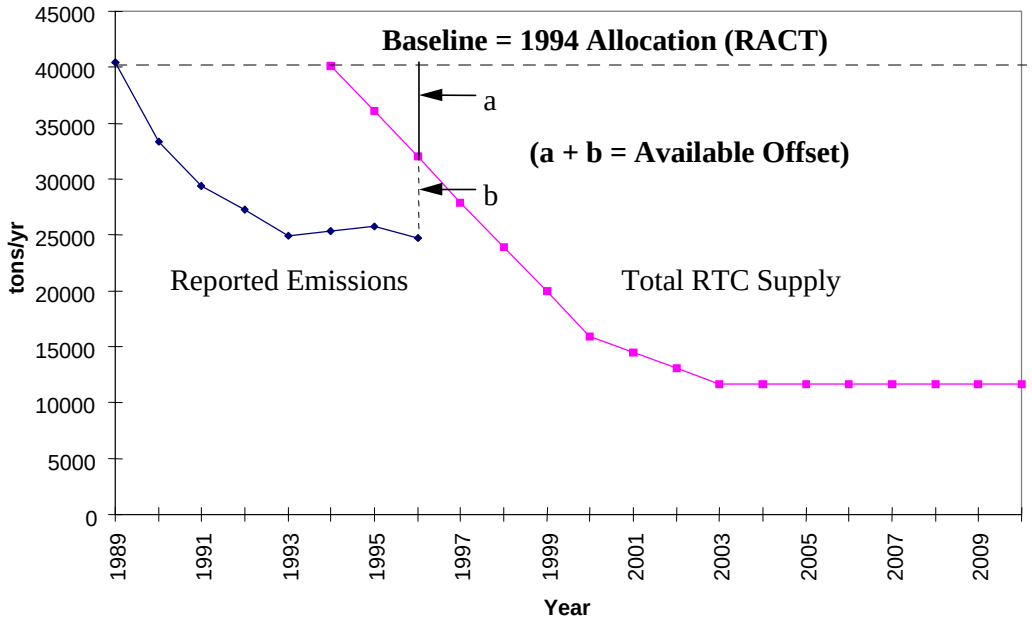
NSR Compliance Demonstration

RECLAIM is designed to comply with the federal NSR offset requirements. Meeting the NSR requirement (offset ratio of 1.2-to-1) also indicates compliance with the state requirement of no net emission increases from new or modified sources. Section 173 (c) of the federal Clean Air Act (Act) states that only emissions reductions beyond the requirements of the Act, such as 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, any emissions reductions beyond the initial allocations are available for NSR offset purposes.

The methodology for determining the available offsets for NSR emissions increases from RECLAIM facilities is illustrated in Figure 4-1. In the figure, the solid line indicated by the letter "a" represents the programmatic reductions beyond the 1994 allocation level (baseline) via declining allocations. The dotted line indicated by the letter "b" accounts for the unused RTCs, (allocations - reported emissions) which also qualify as available NSR offsets. Consequently,

the combined total of "a" and "b" is considered the total available offset for calculating the offset ratio to demonstrate compliance with federal NSR requirements.

Figure 4-1
Available Offsets for NSR Emissions Increase



To determine the NSR offset ratio, the available offset for each year is compared to the NSR emission increase for the same year according to the following methodology:

1. Offset Available = 1994 Initial Allocation (all available RTCs) - Annual Emission Reported (RTC used); "a" + "b" as shown in Figure 4-1
2. Offset Ratio = [1 + (Offset Available/NSR Emission Increase)] to 1
   (One is added to "Offset Available/NSR Emission Increase" to reflect the fact that the NSR Emission Increase is included in reported emissions and, therefore, offset at a 1-to-1 ratio by the RTCs used to offset reported emissions)

Table 4-2 and Table 4-3 summarize the NSR emission increases and the offset ratios calculated based on the above methodology for each calendar year since the start of the RECLAIM program in 1994. As noted in the tables, the aggregate offset ratio for RECLAIM facilities is 209 to 1 for NOx in Calendar Year 2002.

Table 4-2
Emission Reductions and Offset Ratios for NOx

	1994	1995	1996	1997	1998	1999	2000	2001	2002
NSR Emission Increase (tons)	66	393	174	318	275	75	121	141	148
Offsets Available (tons)	11,028	14,253	18,341	15,331	19,753	20,648	21,008	25,752	30,728
Offset Ratio	168:1	37:1	106:1	49:1	73:1	276:1	175:1	184:1	209:1

Table 4-3
Emission Reductions and Offset Ratios for SOx

	1994	1995	1996	1997	1998	1999	2000	2001	2002
NSR Emission Increase (tons)	37	42	63	62	8	0	0	0	0
Offsets Available (tons)	2,242	2,299	3,901	3,881	3,698	4,113	4,548	5,555	5,555
Offset Ratio	62:1	56:1	63:1	64:1	451:1	N/A	N/A	N/A	N/A

RECLAIM continues to generate sufficient excess emissions reductions to provide greater than 1.2-to-1 offset ratios as required by federal law. This compliance with the federal offset requirements is built into the design of the RECLAIM program through the annual reductions of the allocations assigned to RECLAIM facilities.

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 above the facility's original (1994) allocation and Non-Tradable Credits. Furthermore, the RTC trading zone restrictions in Rule 2005 – New Source Review for RECLAIM, limit trades conducted to mitigate 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 Calendar Year 2002 shows that RECLAIM is in compliance with both state 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.

Rule 2004(q) 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 by forty (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 2002, no facility was found to be subject to this requirement.