SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Evaluation and Review of the RECLAIM Program and Assessment of RTC Price Reporting

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EXECUTIVE SUMMARY

Chapter 1: Introduction

This Chapter provides an overview of the evaluation and review requirements of the Regional Clean Air Incentives Market's (RECLAIM) Rule 2015(b)(6) and the program reassessment requirement of California Health and Safety Code Section 39616(f). It also presents a detailed description of the RECLAIM's existing RECLAIM Trading Credit (RTC) price reporting and averaging method and the shortcomings of that method with respect to trades of RTCs from a specified start year and continuing through all years thereafter. The high average price of compliance year 2010 NOx RTCs traded in calendar year 2006 is presented and the factors contributing to that price are explained, as well as the Governing Board's direction regarding the actions to be taken with respect to the price and a brief summary of the execution of that direction, including investigation of price reporting in other market-based incentive programs and the Working Group process.

Chapter 2: Evaluation of Price Reporting and Determining Average Prices for RTC Trades

This chapter describes the evaluation criteria for candidate reporting methods in detail. These criteria address four basic questions regarding the candidate reporting methods:

- Is the reporting candidate reflective of market behavior?
- How much potential for price manipulation does the candidate method pose?
- How acceptable is the candidate method to market participants?
- How much administrative burden does the candidate method impose on AQMD?

The four candidate reporting methods which were considered through the working group process are described in detail, the comments regarding the candidates provided by Working Group participants are summarized, and the candidates are evaluated against the criteria described above. Finally, based on the results of the evaluations, a candidate reporting method is recommended for implementation.

Chapter 3: Rule 2015(B)(6) and California Health & Safety Code Section 39616(F) Program Review

This chapter presents the results of the RECLAIM evaluation and review conducted pursuant to Rule 2015(b)(6) and the reassessment conducted pursuant to Health and Safety Code Section 39616(f) as a result of the cost of RTCs traded in 2006. These analyses demonstrate that RECLAIM provides adequate incentives to comply and compliance remains high, that it remains possible for AQMD to obtain appropriate penalties in cases of noncompliance, and that no amendments are needed to the program to ensure continued compliance.

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Chapter 4: Impact of Investors on the RTC Market

Investors have been increasingly active in the RTC trading market, particularly with respect to infinite-year block (IYB) trades. They were involved in more than ninety percent of all IYB trades in calendar year 2006 and in all IYB trades in 2007. As of May 2007, they hold 3.9 % of IYB NOx RTCs. Investors have the potential to provide capital to the market which can be used to fund emission controls. On the other hand, if RECLAIM emissions approach aggregate allocation in the future resulting in a sellers' market, investors' participation in the market may result in increased compliance cost for RECLAIM facilities.

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CHAPTER 1
INTRODUCTION

Summary

This Chapter provides an overview of the evaluation and review requirements of the Regional Clean Air Incentives Market's (RECLAIM) Rule 2015(b)(6) and the program reassessment requirement of California Health and Safety Code Section 39616(f). It also presents a detailed description of the RECLAIM's existing RECLAIM Trading Credit (RTC) price reporting and averaging method and the shortcomings of that method with respect to trades of RTCs from a specified start year and continuing through all years thereafter. The high average price of compliance year 2010 NOx RTCs traded in calendar year 2006 is presented and the factors contributing to that price are explained, as well as the Governing Board's direction regarding the actions to be taken with respect to the price and a brief summary of the execution of that direction, including investigation of price reporting in other market-based incentive programs and the Working Group process.

Background

Southern California experiences some of the worst air quality in the United States. Therefore, the South Coast Air Quality Management District (AQMD), the regional agency with responsibility for regulating air emissions in Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties, must use all tools available in its efforts at improving local air quality and brining the region into attainment with federal and state ambient air quality standards. As an element of its overall strategy for reducing emissions, it developed the world's first regional market-based incentive program to reduce emissions of oxides of nitrogen (NOx) and oxides of sulfur (SOx). This program was adopted by AQMD's Governing Board in October 1993 as Regulation XX - Regional Clean Air Incentives Market (RECLAIM). Because it was such an innovative—and therefore unproven—program, the RECLAIM program included Rule 2015 – Backstop Provisions to ensure program performance is monitored on an ongoing basis and any problems identified are corrected in a timely manner. Similarly, California Health and Safety Code 39616 (the legislation authorizing the creation of air quality market incentive programs) includes a provision calling for program reassessment if the market price of credits exceeds a pre-determined threshold.

Average Price of 2010 NOx RTCs Traded in 2006

For each calendar year of trading activity, average annual RTC prices are calculated separately for each compliance year traded. These average prices are calculated as the pounds traded weighted average of all the prices for each compliance year as reported pursuant to the current price reporting method, which is described in detail later in this chapter. Average annual prices for NOx RTCs traded in Calendar Year 2006 followed trends similar to those in prior

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years except for Calendar Years 2000 and 2001. The average prices of NOx RTCs steadily rose from a low price for near term RTCs to a higher price for future credits. During 2006, NOx RTC average prices ranged from a low of $2,353 per ton for the Compliance Year 2005, through $7,962 per ton for Compliance Year 2007, to $15,698 per ton for Compliance Year 2010, then dropped back down to about $11,100 per ton for Compliance Years 2011 to 2021. Average annual prices for NOx RTCs were about $28,800 per ton for infinite-year RTC blocks. When compared to average annual prices for Calendar Year 2005 trades, 2006 prices for NOx RTCs valid for Compliance Year 2007 and earlier were lower and prices for NOx RTCs valid for Compliance Year 2008 and after were higher—in fact, they were the highest average annual prices for RTCs valid in future years since the inception of RECLAIM. The increase in average annual prices for Compliance Year 2008 and subsequent years resulted from a significant rise in infinite-year block trades with price and a concurrent decrease in single year trades with price.

Rule 2015(b)(6) Requirements

Paragraph (b)(6) of Rule 2015 specifies that "Should the average RTC price be determined…to have exceeded $15,000 per ton, within six months of the determination thereof, the Executive Officer shall submit to the Air Resources Board and the Environmental Protection Agency the results of an evaluation and review of the compliance and enforcement aspects of the RECLAIM program…." Furthermore, it specifies that such report include the following elements:

1. Assessment of the rates of compliance with applicable emission caps.
2. Assessment of the rates of compliance with monitoring, recordkeeping and reporting (MRR) requirements.
3. Assessment of the ability of the South Coast Air Quality Management District to obtain appropriate penalties in cases of noncompliance.
4. Assessment of whether the program provides appropriate incentives to comply.
5. Assessment of the deterrent effect of Rule 2004(d)(1) through (d)(4).
6. Recommendation regarding the need to amend Rule 2004(d)(1) through (d)(4).

California Health and Safety Code Section 39616(f) Requirements

Health and Safety Code Section 39616(f) specifies that the Governing Board "shall reassess a market-based incentive program if the market price of [RTCs] exceeds a predetermined level" it has set. The Governing Board's October 1993 adoption resolution for Regulation XX – REgional CLean Air Incentives Market (RECLAIM) established program review thresholds pursuant to Health & Safety Code Section39616(f)[1] of $25,000 per ton per year for NOx and $18,000 per ton per year for SOx plus annual adjustments to correct to changes in the consumer price index ($34,008.10 and $24,485.83, respectively, in 2006 dollars)[2].

[1] At the time, it was designated Health and Safety Code Section 39620(f).

[2] At the time of the Public Hearing regarding Annual RECLAIM Audit Report for 2005 Compliance Year, staff was of the misunderstanding that Section 39616(f) predetermined levels

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However, at the time of initial adoption, the RECLAIM program was only to last through Compliance Year 2010. It was not until July 1996 that the Governing Board adopted amendments to Regulation XX and extended RECLAIM indefinitely. Prior to that amendment, the Governing Board had not established thresholds applicable to infinite-year block (IYB) trades because such trades were not envisioned or approvable at time the program was adopted. Additionally, the Governing Board did not adopt any price thresholds applicable to IYB trades when it extended the program and has not done so subsequently. Therefore, the only predetermined thresholds for program review under Section 39616(f) are for discrete RTC trades.

Although the $15,698 per ton per year average price found by the Governing Board to exist for compliance year 2010 NOx RTCs traded in calendar year 2006 is well below the $34,008 per ton per year Health & Safety Code Section 39616(f) threshold ("predetermined level"), the Governing Board directed staff to perform a program review pursuant to §39616(f) to ensure the most conservative evaluation and as a means to evaluate review thresholds applicable to IYB trades of NOx and SOx.

Based upon the evaluation in the March 2, 2007 Annual RECLAIM Audit Report for the 2005 Compliance Year (the report in which the Governing Board found the average price of compliance year 2010 NOx RTCs to be $15,698 and directed staff to perform this program review), the underlying causes of high average price appear to be the way prices are reported and average annual prices are calculated for IYB of RTCs. The potential adverse impacts of high RTC prices pertain to the same compliance issues addressed by Rule 2015(b)(6). The Rule 2015(b)(6) evaluation fully addresses all of these compliance issues, therefore no additional Section 39616(f)evaluation is required in this case. However, the need for establishing separate review thresholds applicable to IYB trades is further assessed in this report and is hinged upon the reporting method to be adopted by the Governing Board.

Current Price Reporting

In the current RECLAIM market, RTC trades fall into two categories:

1. "Discrete" trades, in which only RTCs valid for specific identified compliance years are transferred. Prices for trades involving discrete trades are reported in dollars per pound per year as they were negotiated.
2. Infinite-year block (IYB) trades, in which RTCs from a specified start year and continuing into perpetuity are transferred. Price reporting for IYB trades is more complicated. In some cases, the quantity of RTCs transferred for the initial years of IYB trades is not consistent from year to year. Some parties distinguish two types of IYB trades based upon how the deal is developed:
    - "Infinite only" trades, involving the transfer of a fixed amount of RTCs valid from a specified future compliance year and continuing into perpetuity and negotiated as a specified price for the entire block of RTCs or price per infinite pound. Historically, these trades have generally

were equivalent to the Rule 2015(b)(6) threshold of $15,000 per ton. Therefore, the Resolution from that public hearing misstates the predetermined level as $15,000 per ton.

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commenced with compliance year 2011 RTCs. In some cases, infinite only trades are reported as negotiated—a total price per pound (*e.g.*, 10,000 pounds of NOx in 2011 and each year thereafter for $90 per pound—see Table 1-1A). In other cases, the initial years of infinite only trades are reported individually as if they were discrete trades, followed by the balance of the trade reported as a perpetuity block. The prices for trades reported in this way are split between the years reported discretely (in dollars per pound per year) and the years reported as a perpetuity (in dollars per pound). In such cases, the price is typically distributed evenly across the discretely-reported years and the perpetuity portion evenly counting the perpetuity portion as a single year (*e.g.*, the same 10,000 pounds at $90 per pound trade mentioned in the first example would be reported at six dollars per pound for each of the years 2011 through 2024 and six dollars per pound for 2025 and beyond—see Table 1-1B). It should be noted that the prices assigned to the discretely-reported years of stream trades generally do not reflect the prices associated with the negotiations for those trades; historically, the prices for the perpetuity portion and the discretely-reported years have been combined into a total contract price which the trade participants subsequently distribute as they desire for reporting purposes. The number of years which have been reported discretely for IYB trades varies widely from to 0 to 25 years.

- "Stream" trades, which consist of discrete years followed by a perpetuity portion and negotiated like an infinite only trade for the perpetuity portion with additional value negotiated for the discrete years. Historically, the perpetuity portions of these trades have generally commenced with compliance year 2011 RTCs. Stream trades are reported as discretely-reported initial years followed by the infinite-year block trade. However, registrations submitted for these trades contain no distinctive separation between the discrete years and the beginning of the IYB. Therefore, stream trades and IYB trades cannot be readily separated under the current practices. Price reporting for the infinite portion is as varied as the infinite only trades. In addition, some of these trades were reported at a constant price per pound for each of the discrete years and the infinite block by evenly distributing the aggregate value of the trade.

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Table 1-1
Two Methods of Reporting a Trade of 10,000 Pounds of NOx in 2011 and Each Year Thereafter for $900,000

Method 1-1A

Compliance Year	Pounds	Price per Pound
2011 and beyond	10,000	$90

Method 1-1B

Compliance Year	Pounds	Price per Pound
2011	10,000	$6
2012	10,000	$6
2013	10,000	$6
2014	10,000	$6
2015	10,000	$6
2016	10,000	$6
2017	10,000	$6
2018	10,000	$6
2019	10,000	$6
2020	10,000	$6
2021	10,000	$6
2022	10,000	$6
2023	10,000	$6
2024	10,000	$6
2025 and beyond	10,000	$6

Tables 1-1A and 1-1B illustrate that the manner in which the prices of IYB trades are reported has a dramatic impact on the reported price for individual years and, therefore, on the calculated average prices. That is, the more the price of a trade is spread over time the lower the price associated with individual years. Different methods of distributing the price of IYB trades for reporting purposes are chosen by trading parties for a variety of reasons. Some facilities may choose a price reporting system based on their accounting practices. It was also reported to staff that some price reports were made specifically to avoid exceeding $7.50 per pound per year. Hypothetically, a reporting scheme could be selected as a means to attempt to manipulate the market. This variability in reporting of IYB trades illustrates a critical deficiency of the current reporting system: it allows—even arguably could encourage—arbitrary reporting of the price of IYB trades.

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Governing Board Direction

In approving the Annual Audit Report for Compliance Year 2005, the Governing Board directed staff to, within six months, perform an evaluation and review of the compliance and enforcement aspects of the RECLAIM program and prepare the results of such evaluation and review for the AQMD Governing Board's consideration and submittal to the Air Resources Board and Environmental Protection Agency, pursuant to Rule 2015(b)(6). Though the thresholds set forth for program review pursuant to Health and Safety Code §39616(f) were not exceeded, the Governing Board directed staff to assess the existing methodology for determining average annual prices, pursuant to Rule 2015(b)(1) and Health and Safety Code §39616(f), and propose a recommended methodology for determining average prices for infinite-year blocks of RTCs.

Survey

Surveys regarding amortizing practices as they relate to RTC values were sent out to all operators of RECLAIM facilities on April 6, 2007 along with the notice for the first Working Group Meeting (a copy of the survey is provided in Appendix A). Out of a total of 327 surveys sent out, 108 were returned, in which 13 companies provided information regarding amortization periods for IYB RTCs, which are summarized below:

1. Number of companies using 5-year amortization period: 1
2. Number of companies using 10-year amortization period: 2
3. Number of companies using 15-year amortization period: 1
4. Number of companies using 30-year amortization period: 1
5. Number of companies expensing upon purchase: 7
   (One company stated that amortization over 25 years would be considered if the cost of purchase was substantial)
6. Number of companies treating purchase as an annuity: 1

Price Reporting in Other Market Incentive Programs

Staff investigated price reporting in other air quality market incentive programs in the United States. Two such programs were identified: the federal Acid Rain Program and the Houston/Galveston Area Mass Emissions Cap & Trade Program (Houston/Galveston MECT). The Acid Rain Program does not include a credit price threshold triggering any form of program review. In fact, it does not even require price reporting for credit trades. The Houston/Galveston MECT trades all future credits as IYBs starting in 2008 and records trade prices as dollars per ton lump sums. However, this program does not include any sort of programmatic review based on credit prices.

Working Group

Working Group Meetings were held on April 17, 2007, May 17, 2007, and June 29, 2007 to develop a more appropriate method of evaluating and reporting prices for IYB RTCs and to provide input on the enforcement aspects of the program.

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In the first meeting held on April 17, 2007, participants were informed about the 2010 RTC prices exceeding the Rule 2015(b)(6) threshold and the evaluations directed by the Governing Board. In the second meeting held on May 17, 2007, participants were provided with results of survey regarding amortization practices for IYB purchases, a brief description of the four reporting options being considered for IYB trades, and information of impact of investor participation on RTC prices. Written comments were also solicited so that they can be included in this report. Prior to the third meeting held on June 29, 2007, draft copies of the program review report to be presented to the Governing Board were mailed to the participants. The third meeting discussed the aforementioned draft report and solicited participant comments.

Structure of this Report

The balance of this report addresses the issues identified above in greater detail. Chapter 2 develops evaluation criteria for evaluating potential trade reporting methods ("reporting candidates"), describes the various reporting candidates considered, summarizes the opinions expressed by Working Group participants regarding the candidates, assesses those candidates relative to the evaluation criteria, and recommends a reporting candidate for implementation. Chapter 3 presents the Rule 2015(b)(6) and Health and Safety Code Section 39616(f) program reviews, including assessments of rates of compliance with emission caps and MRR requirements, of AQMD's ability to obtain appropriate penalties in cases of noncompliance, of whether the program provides adequate incentives to comply and the deterrent effect of Rule 2004(d)(1) through (d)(4), and a recommendation regarding the need to amend Rule 2004(d)(1) through (d)(4). Chapters 4 and 5 evaluate the impact of investors and barter trades on the RTC market, respectively. Chapter 6 summarizes the conclusions and recommendations from the previous chapters. Finally, the appendices provide a sample survey form, identify the Working Group participants, and present copies of all comment letters received by AQMD regarding this process.

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CHAPTER 2
EVALUATION OF PRICE REPORTING AND DETERMINING AVERAGE PRICES FOR RTC TRADES

Summary

This chapter describes the evaluation criteria for candidate reporting methods in detail. These criteria address four basic questions regarding the candidate reporting methods:

- *Is the reporting candidate reflective of market behavior?*
- *How much potential for price manipulation does the candidate method pose?*
- *How acceptable is the candidate method to market participants?*
- *How much administrative burden does the candidate method impose on AQMD?*

The four candidate reporting methods which were considered through the working group process are described in detail, the comments regarding the candidates provided by Working Group participants are summarized, and the candidates are evaluated against the criteria described above. Finally, based on the results of the evaluations, a candidate reporting method is recommended for implementation.

Background

The average price of compliance year 2010 NOx RTCs traded during calendar year 2006 was $15,698 per ton per year. However, as discussed in detail in Chapter 1, this was the result of the arbitrary manner in which such trades have been reported under the current trade reporting methodology. Although this was recognized before the Governing Board made its finding that the cost of compliance year 2010 NOx RTCs traded during calendar year 2006 exceeded $15,000 per ton per year, staff recommended that a public review process be initiated to evaluate RECLAIM pursuant to AQMD Rule 2015(b)(6) and Health and Safety Code Section 39616(f)[1] and, concurrently through the same public process, develop a new trade reporting methodology which is appropriate for both discrete and IYB trades. The Governing Board agreed with staff's recommendation and directed staff to proceed accordingly. This chapter presents the results of the portions of that public process which addressed the selection of a recommended trade reporting method, including detailed descriptions of the candidate reporting methods and the evaluation criteria which were used to assess the suitability of those candidate reporting methods. The topics addressed in this background description are explored more fully in Chapter 1.

[1] Refer to Chapter 3 for a detailed explanation of the provisions of Rule 2015(b)(6) and of Health and Safety Code Section 39616(f).

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Evaluation Criteria for Candidate Reporting Methods

A key principle in designing and selecting the trade reporting approach is that it be reflective of actual market behavior. That is, minimizing the amount of translation or re-calculation of the details of a trade agreement necessary to make it fit the reporting method will significantly reduce the potential for arbitrary reporting and for artifacts of the reporting method to skew the aggregate trade data, including average price data. Therefore, all candidate reporting methods will be evaluated to determine how close the data required to be submitted by trade participants is to the trade details naturally resulting from the process of negotiating RTC trades.

To the extent that translation of naturally resulting trade details to generate trade data for reporting purposes is employed, the translation must conform to formalized procedures that will yield reproducible results. That is, a method will be preferred over one which leaves such manipulation to the discretion of the parties to the trade (such as the distribution of the price of IYB trades over time in the current reporting method, as described in Chapter 1). In addition, the need for AQMD to translate data reported in trades into the pricing data dispensed to the public will naturally inject time lags into the price reporting process. Therefore, any candidate method that requires more complicated calculation or translation will yield a delayed pricing signal.

The above two principles help minimize the potential for price manipulation. That is, minimizing the need to alter the natural trade details to fit the reporting method automatically minimizes the opportunity for creative reporting for the purpose of influencing the RTC market. For example, under the current reporting method, parties to IYB trades may spread the entire value of a trade over anywhere from a single year to 25 years. Therefore, they could intentionally increase the calculated average price of RTCs by concentrating the trade price in a single or a few years or decrease it by spreading the cost of over many years. By doing so, a prospective seller could attempt to increase the market value of its RTCs or a prospective buyer could attempt to lower the cost of needed RTCs. Although no feasible price reporting system can eliminate the possibility of price manipulation, some are better than others at discouraging it.

Implementation of a trade reporting method which is reflective of market behavior and which minimizes the potential for market manipulation will also have the added benefit of providing meaningful, accurate, and timely market signals to parties who participate in the market. Timely and accurate trade data is critical to all market participants. Therefore, candidate reporting methods which generate the most reliable market data with the least translation will be most acceptable to the market participants, assuming all other considerations are equal. There are, however, additional considerations which influence participant acceptance, including the potential of added administrative costs to participants, the impact on market efficiency (transparency and dynamics), the effect on market price of RTCs, and impacts on the trade process (e.g., reporting complexity and time required for AQMD's review and approval process).

In addition to participant acceptance being shaped by factors impacting market participants, the impact of candidate reporting methods on AQMD resources is an important consideration in the evaluation of competing candidate reporting methods. That is, the evaluation of candidate reporting methods will include an

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assessment of the relative level of administrative burden each imposes upon AQMD. Some aspects of the potential administrative burden a new reporting and evaluation method could impose upon AQMD correspond to those which determine market participant acceptability, such as increased review and approval time for trades, reporting complexity, and ready availability of accurate and meaningful market data. Additionally, AQMD could be impacted by the need for software enhancement, training and outreach, or program changes requiring Governing Board action such as rule amendments. Software enhancement needs are of particular importance because all but the most basic of changes to custom software such as the existing program for registering and tracking RTC trading information and updating the RTC listings tend to be time consuming and costly. Furthermore, some candidate reporting methods may require manual tracking of trade data while the necessary enhancements to the RTC trading software are developed. While it is unlikely that a new reporting method will require no change to the existing RTC trading software, it is desirable to minimize cost and time needed for implementation by minimizing the changes to the user interface or the database structure or the need to create new program modules.

The above criteria will be used to evaluate each candidate trade reporting method to determine how well they reflect actual market behavior, their potential for price manipulation, how acceptable they would be to market participants, and the administrative burden they would impose upon AQMD. The results of these analyses will also help to refine the candidates as appropriate, and then to select the candidate with the best overall balance of positive features while minimizing adverse impacts.

Reporting Candidates

Staff developed four candidate trade reporting methods for consideration to replace the current method, which is described in detail in Chapter 1. Each of the four candidate methods are described in detail below:

Reporting Candidate I—Segregated Discrete and Infinite-Year Trades

IYB trades will be reported separately from discrete year trades under Reporting Candidate I. That is, each trade registration will be required to be for either discrete years or for an IYB, but not for both. There will not be any change from the current practice of reporting discrete year RTCs trades. For IYB trades, the lump sump price for the entire IYB will be reported (not price per pound per year and not price per pound). Such IYBs may include varying quantities of RTCs during the initial years of the trade. For stream trades, two registrations will be required—one for the discrete years and one for the IYB. AQMD will report and average prices for IYB trades (in dollars per ton) separately from prices for discrete trades (in dollars per ton per year). In averaging prices for IYB, AQMD will calculate the price per pound value of each trade by dividing the lump sum value reported by the pounds of infinite year RTCs traded. AQMD will then compute the weighted average of all IYB trades reported based on this calculated value of each trade. For example, an IYB trade of 10,000 pounds per year for a total payment of $900,000 would be reported as illustrated in Table 2-1 under Reporting Candidate I. The calculated price for the IYB would be $90 per pound.

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Table 2-1
Reporting an IYB Trade under Reporting Candidate I

Compliance Year	Quantity (lb/yr)
2009	9,000
2010	9,500
2011 and beyond	10,000

Total Traded Value = $900,000

Under this proposal, the program review threshold in Rule 1315(b)(6) will apply only to the average price of discrete trades. On the other hand, it will be necessary to develop, and for the Governing Board to adopt, new and separate NOx and SOx program review thresholds for IYB trades pursuant to California Health and Safety Code Section 39616(f). That is, the existing Section 39616(f) thresholds will remain in place for discrete trades in dollars per ton per year and new thresholds will be established for IYB trades in dollars per ton.

Reporting Candidate II—Infinite-Year Trades Start in Sixteenth Year

Reporting Candidate II provides a highly-structured reporting framework—infinite year block trades will be defined as consisting of a uniform quantity of RTCs each year commencing in the sixteenth year after the year of trade registration and all RTCs traded through the fifteenth year from registration are to be reported as discrete trades. No RTCs from the sixteenth year and beyond can be sold as discrete year. In one way, all IYB trades will be transformed to "stream" trades with 15 leading discrete year to the IYB RTCs. Therefore, the same example illustrated in Table 2-1 for Reporting Candidate I will be reported under Reporting Candidate II as eleven years of discrete trades followed by a 10,000 pound IYB trade, as shown in Table 2-2. It will be the participants' responsibility to apportion the value associated with such an agreement between the discrete and infinite portions. As with Candidate I, price averaging will be performed and reported separately for discrete and IYB trades. IYB trades will be excluded from the Rule 2015(b)(6) average price analysis, and new Section 39616(f) thresholds will be established for IYB trades under Reporting Candidate II.

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Table 2-2
Reporting an IYB Trade under Reporting Candidate II

Compliance Year	Pounds	Price per Pound[1]
2009	9,000	$6.06
2010	9,500	$6.06
2011	10,000	$6.06
2012	10,000	$6.06
2013	10,000	$6.06
2014	10,000	$6.06
2015	10,000	$6.06
2016	10,000	$6.06
2017	10,000	$6.06
2018	10,000	$6.06
2019	10,000	$6.06
2020	10,000	$6.06
2021	10,000	$6.06
2022	10,000	$6.06
2023 and beyond	10,000	$6.06

Note 1: Reporting Candidate II allows the parties to each trade to determine how to apportion the trade price between the discrete and infinite portions as they choose, so the reported price per pound is variable under this candidate. The uniform distribution shown is consistent with common reporting practices for IYB trades under the current reporting method, but the actual traded prices may be individually decided for each discrete year.

Reporting Candidate III—Amortized Infinite-Year Trades

Price reporting will remain unchanged from current practice under Candidate III. However, the total cost of all IYB trades will be amortized over a set number of years at a standard interest rate (proposed to be fifteen years at four percent real interest) by AQMD regardless of how they are reported. Table 2-3 presents the same hypothetical trade as Tables 2-1 and 2-2, in this cases illustrating an example of how it could be reported under Reporting Candidate III (there are many other ways this IYB trade could be reported under this candidate), as well as the amortized price (which will remain unchanged regardless of how the trade is reported).

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Table 2-3
Reporting an IYB Trade under Reporting Candidate III

Compliance Year	Reported Pounds	Reported Price per Pound[1]	Amortized Price per Pound[2]
2012	10,000	$6.43	8.09
2013	10,000	$6.43	8.09
2014	10,000	$6.43	8.09
2015	10,000	$6.43	8.09
2016	10,000	$6.43	8.09
2017	10,000	$6.43	8.09
2018	10,000	$6.43	8.09
2019	10,000	$6.43	8.09
2020	10,000	$6.43	8.09
2021	10,000	$6.43	8.09
2022	10,000	$6.43	8.09
2023	10,000	$6.43	8.09
2024	10,000	$6.43	8.09
2025 and beyond	10,000	$6.41	8.09
2026			8.09

Note 1: Reporting Candidate III allows the parties to each trade the same flexibility to determine how to apportion the trade price over time as the current method, so the reported price per pound is variable under this candidate. The uniform distribution shown is consistent with common reporting practices for IYB trades under the current reporting method.

Note 2: The proposed period and interest rate of 15 years at four percent were used to amortize the price in this example.

Under this approach, the portion (or the entirety) of a trade registration will have to be annotated as IYB trades so as to allow the amortization calculation. To perform this calculation, the AQMD will have to calculate the total value for the IYB and amortize this total over a set number of years at a standard interest rate. Where there is a difference in the amount of RTCs traded between the initial year and the final IYB, the same assumption as in Candidate I (*i.e.*, the amount of the final IYB will be used as the basis for the per pound calculation) will have to be made to arrive at an annualized per pound cost for the IYB trades. The annualized RTC cost will then be assigned to the compliance years starting with the initial year of the traded IYB. Finally, a weighted average RTC price for each compliance year will be determined by mixing the discrete year and the IYB trades. The average RTC prices will be used by AQMD for purposes of publishing average trade prices and for purposes of evaluating compliance with Rule 2015(b)(6) and Section 39616(f). Therefore, no new RTC price thresholds are required for this Candidate.

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Reporting Candidate IV—No Infinite-Year Trades

No trades involving RTCs beyond the fifteenth year from the registration date are allowed under Reporting Candidate IV. Furthermore, no trades of RTCs more than a fourteen compliance years beyond the current compliance year at the time of trade registration are allowed. Therefore, there will be no IYB trades reported and there will be no need to address averaging of infinite trade prices or their impact on compliance with Rule 2015(b)(6) or Section 39616(f).

Opinions Expressed by Working Group Participants

The primary topic of discussion at the second meeting of the Working Group was reporting candidates for IYB trades. The four reporting candidates described above were presented individually by staff, each of which was followed by an open discussion by the Working Group participants. The participants were also given the opportunity to suggest additional Candidates, either during the meeting or in writing. No additional Candidates were suggested. The opinions expressed by Working Group participants are briefly summarized below, followed by more detailed descriptions of the written comments received from them. Copies of the written comments are included in Appendix C.

Stakeholders who attended the meeting were asked to indicate, by a show of hands, which of the four reporting candidates for IYB trades they would favor. According to this non-binding straw poll, Reporting Candidates I and III were considered equally acceptable. Candidate II received only weak support, and there was no support for Candidate IV. In fact, there was opposition to Candidate IV. Specific objections to Candidate IV, which eliminates IYB trades altogether, were: (1) there would be a loss of transparency in the market because facilities would enter into un-registered agreements for IYB trades, (2) new facilities would not be able to secure IYB RTCs, (3) there would be no mechanism for the transfer of RTCs for facilities that are changing ownership or shutting down, and (4) it would create a disincentive to install controls. A participant expressed that he would not support any method that would result in increase in RTC prices and/or administrative costs. He voiced concerns over additional trade registration cost that would result under Candidate I, which requires separate price reporting for discrete years and infinite year blocks, thereby, increasing the number of registrations to be submitted.

Two industry groups and one RECLAIM facility submitted written comments. One letter from an industry group indicated that the Reporting Candidates for reporting IYB trade prices had not been discussed in sufficient detail for them to make a selection. They did reiterate their opposition to Candidate IV. Their letter stressed the need to maximize transparency and minimize impact on the market. They also suggested that staff improve market transparency by providing information about permit applications for new projects that could affect the RTC supply. The other industry group expressed a preference for Reporting Candidate III on the grounds that this option provides the greatest flexibility to trading partners while ensuring meaningful price reporting for near-term RTCs. The letter from the RECLAIM facility commented that they consider Reporting Candidate I to be the most appropriate.

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Evaluation of Reporting Candidates

The following discussion evaluates each of the four candidate reporting methods described above to determine how well they would reflect actual market behavior, their potential for price manipulation, how acceptable they would be to market participants, and the administrative burden they would impose upon AQMD. The evaluation includes ideas for refinements to the candidates which could help them to perform better relative to the evaluation criteria (i.e., enhance their positive features and/or minimize their adverse impacts).

A. Is the Reporting Candidate Reflective of Market Behavior?

Reporting Candidate I is perfectly reflective of market behavior for discrete trades and for infinite-only trades; it is reasonably reflective of the market for stream trades. However, as discussed previously, stream trades include a discretely-negotiated element for initial years in addition to the infinite portion. Because Reporting Candidate I requires separate reporting of discrete-year transactions from IYB transactions, it is not reflective of actual market behavior for stream trades where transactions are negotiated as one composite trade. However, since the discretely-negotiated portions of stream trades represent a small part of the overall value of these trades, this represents a small deviation from market behavior. Nevertheless, Reporting Candidate I can be made even more reflective of the market by refining it to specify that all trade activity for RTCs for the current or two subsequent compliance years at the time the registration is submitted must be reported as discrete trades rather than as part of an IYB trade. This is not a perfect solution because the discretely-negotiated portion of a stream trade may not fit this timeframe. Also, an infinite-only trade could start within this timeframe.

Reporting Candidate II requires all infinite-year RTC trades be reported as discrete trades through the fifteenth year from the trade registration year with IYB trades commencing in the 16th year from the trade registration year. The distribution of prices between the discrete years and the IYB portions is determined by the parties to any infinite only or stream trade. This reporting candidate does reflect the market well for the case of discrete trades because they generally do not include RTCs more than fifteen years from the registration date (this candidate would be less reflective of the market for any discrete trades that do include RTCs more than fifteen years out). This candidate also limits the ability of the market to negotiate discrete year trades beyond the fifteenth year from current year. On the other hand, this candidate does a very poor job of reflecting the market for IYB trades; there has never been an IYB trade with an initial year more than fifteen years after the registration. Therefore, IYB trades, none of which has been known to be negotiated in that fashion, will be required to be artificially split into discrete years through the fifteenth year from the current year and an infinite portion thereafter. Furthermore, the distribution of the overall price of IYB trades into infinite and discrete portions will be an arbitrary choice made on a case-by-case basis by trade participants. Unfortunately, any attempt to make this candidate more reflective of the market for IYB trades by shortening the 15 year timeframe for distinguishing between discrete and IYB trades will encroach upon the timeframe of discrete trades well before it begins to address the problem for IYB trades.

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Reporting Candidate III continues the current reporting methodology but amortizes all IYB trades over a standard timeframe at a standard interest rate (provisionally set at 15 years at 4 % real interest). Thus, this approach continues the current arbitrary reporting mechanisms for infinite-year RTC trades which are not reflective of market behavior. Although the standardized amortization of this candidate deals with the arbitrary reporting of IYB trades in a standardized manner, it creates yet another layer of price reporting that even fails to make it reflective of the reported prices let alone the true market prices for IYB RTCs. In particular, amortization attempts to translate IYB trades into pseudo-discrete trades which is entirely contrary to market behavior. Unfortunately, no refinements of this candidate are available to make it reflective of the market for IYB trades because amortizing the prices only serve to determine an artificial annualized prices for these RTC for purposes of Rule 2015(b)(6) evaluation. Reporting Candidate III is reflective of the market for discrete trades with respect to reporting, but the amortization of IYB trades and the commingling and averaging of the results with the discrete trade data significantly weaken benefit of this.

Under Reporting Candidate IV, there are no trades involving infinite-year RTCs or RTCs for years beyond the fifteenth year counting from the compliance year during which the registration occurs are allowed. This candidate is clearly not reflective of market behavior—it attempts to prohibit what is actually a significant element of market activity. Furthermore, it is highly unlikely that IYB trades would actually cease under this candidate; such trades would simply go "underground" and be reported incrementally. Such disparity between market activity and market reporting makes the reporting method extremely weak at reflecting market activity. Additionally, these shortcomings are not correctable by enhancing this candidate.

B. How Much Potential for Price Manipulation does the Candidate Method Pose?

In relation to a credit trading program, price manipulation is any instance where market participant engages in trading activity with the direct intention to influence price. Examples may include (1) the hoarding of credits by buyers with large monetary capital to affect the supply-side of the market and create an artificially high demand, (2) two parties agree to trade between each other at artificially inflated or deflated prices to send false signals to the market, or (3) dividing an infinite block of credits into a few or many years to the point where the unit yearly price is affected dramatically. Therefore, a price reporting system with the lowest potential for alternative price reporting will minimize price manipulations as set forth in examples 2 and 3 above should receive higher consideration than one that could be more prone to price tampering.

Since, as discussed above, Reporting Candidate I mimics market behavior so closely, it eliminates the opportunity for price manipulation via price reporting. That is, the prices paid are the prices reported for discrete trades and infinite only trades. For the cases of stream trades, the reported price is the aggregated value of the transaction, and therefore, does not provide opportunity for alternative price reporting. Although Reporting Candidate II does not reflect the market as well as Candidate I (rather, it seeks to force the market to reflect the reporting method), theoretically its highly structured reporting requirements make it effective at minimizing price manipulation. However, traders are expected to

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split between the values of the 15 discrete years and the IYB RTCs. Furthermore, the distribution of the overall price of IYB trades into infinite and discrete portions will be an arbitrary choice made on a case-by-case basis by trade participants. Thus, in addition to not being reflective of the trading market, Reporting Candidate II fails to resolve the reporting issue that is the driving force for the search for a new reporting method. Therefore, in actuality, Reporting Candidate II does not perform well with regard to minimizing price manipulation and, in fact, is no better in this regard than the current method. Reporting Candidate IV is similar to Candidate II in this regard and takes an even more extreme approach to limiting trading options by seeking to eliminate IYB trades entirely. There is little doubt that IYB trades will continue to occur, but trade participants will be forced to withhold reporting transactions of the future year credits and arbitrarily assign values to these transactions when they are reported in the future. Therefore, the price reported will be highly arbitrary and serve to skew the RTC prices that are actually being transacted. The standardized amortization element of Reporting Candidate III removes the impact of arbitrary price reporting in that the aggregate value is amortized over a fixed period of time. Therefore, this candidate is effective at minimize price manipulation.

C. How Acceptable is the Candidate Method to Market Participants?

There are several elements to participant acceptance of a new RTC trade reporting method: the impact on reporting practices, the potential for any added administrative costs, the impact on market efficiency, and the effect on market price. Each of these aspects of participant acceptance is addressed below.

Influence on Reporting Practices

The discussion of influence on reporting practices focuses on the following questions:

- Does the proposed reporting methodology increase the reporting complexity?
- Will the proposed reporting methodology slow down the approval process?
- What impact will the proposed reporting methodology have on the transfer of infinite-year credits in instances of a facility shut-down or change or operator?
- What impact will the proposed reporting methodology have on new facilities or future facility expansions?

The fact that Reporting Candidate I is very reflective of market practice results in minimal reporting complexity for this candidate because the negotiated trade details do not need to be massaged to fit the reporting requirements. Even though reporting complexity may appear not to be an issue for Reporting Candidate III because it provides trade participants the freedom to report as they choose, it can be viewed as an unnecessary level of decision making. To the extent that actual trading practices fall into line with Reporting Candidate II or IV, they also provide minimal reporting complexity. However, as discussed above, it is quite unlikely that the market will actually behave in the manner specified by either of these candidates. Therefore, in actuality, Candidates II and IV both carry a burden of increased reporting complexity.

AQMD does not anticipate any delays in approving trade registrations to result from implementing any of the Reporting Candidates. Some of the candidates may result in additional administrative burden for AQMD (addressed separately below), but this will not delay the approval of individual trades.

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Reporting Candidates I, II, and III do not pose additional problems for facility shutdowns, new facility start-ups, changes of operator, or facility expansions. Conversely, because it prohibits IYB trades, Reporting Candidate IV is particularly problematic for facilities in any of these situations. Potential new facilities may decide not to locate within the AQMD and facilities with future expansions may decide to redirect future expansions to plants outside of the AQMD because they cannot be certain that required offsets will be available in the future. Similarly, potential buyers may lose interest in assuming operation of an existing RECLAIM facility for the same reason. Candidate IV is equally troublesome for any RECLAIM facility shutting down because it will not be able to sell its RTC holdings into perpetuity, but will be required to come back and repeatedly sell incremental years. This problem can be addressed for shutdowns, start-ups and changes of operator by incorporating an exemption from the prohibition of IYB trades for these parties. However, such an exemption would require implementation of one of the other reporting candidates for cases where the exemption is exercised, thereby detracting from the advantages of Reporting Candidate IV.

Added Administrative Costs

Reporting Candidate I has the potential to add a second registration fee ($121.91 as of July 1, 2007) in cases where discrete and infinite trades could have been combined in a single registration under the current reporting method. However, relative to the cost of the credits being traded, this increased administrative cost is insignificant for these types of trades—as of May 2007 the lowest total credit cost of any NOx IYB trade ever registered was $2200, the mean cost was $713,000, and the highest was $12,750,000. Reporting Candidates II and III would not have any impact on registration fees, but Candidate IV would result in increased registration fees if IYB trades continue to occur and are reported incrementally as discrete trades. No increase in administrative costs other than registration fees are anticipated for Reporting Candidates I, III, or IV, but small increases may result from Reporting Candidate II. The expected increase in administrative costs for Candidate II is the result of the significant differences between the way trades are negotiated and the way Candidate II requires them to be reported. That is, additional administrative burden is expected because of the need to translate negotiated trades into the reporting format required by Reporting Candidate II. Additionally, trade brokers may need to update their software to be compatible with the requirements of Candidate II. However, an actual cost figure is not available to allow assessment of the significance of the cost impact.

Market Efficiency

Market efficiency consists of two main components: market transparency—the availability and accuracy of information—and market dynamics—the practices that either assist or hinder trading. Market transparency is necessary to maintain confidence and ensure the overall health of the trading market, whereas market dynamics determine the robustness of the trading program. The availability of trade data will be the same regardless of the Reporting Candidate implemented: the current practice of daily updates to AQMD's website, which will continue to present the most recent 90 days of trade data will remain unchanged. However, the accuracy, or how reflective the price is of the trade varies significantly among the four Reporting Candidates. Because Reporting Candidate I most closely

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mirrors actual trading behavior, it is also the candidate that generates the price data that is most reflective of actual market activity and presents that data in the most useful format (price per pound per year for discrete trades and price per pound for IYB trades). Because stream trades contain both IYB and discrete elements, the price data generated for these trades by Reporting Candidate I may not be as highly reflective of actual market conditions as the data for discrete and IYB trades. On the other hand, Reporting Candidate II is very structured but not representative of the actual functioning of the market, so it will generate price data which is less reflective of market behavior and less valuable to market participants. However, it can be argued that over time market behavior will conform to the reporting structure – that is trades will be negotiated in the same fashion – 15 years of discrete and all IYB will be for the sixteenth year and beyond. This prediction still remains to be proven. Reporting Candidate III generates two types of price data—reported and calculated. That is, Candidate III provides parties to IYB trades the same reporting flexibility that they have under the current reporting method and AQMD then applies a standardized calculation methodology to the reported price data to generate amortized price data. The reported price data is arbitrary and is no better at reflecting actual market behavior than the data resulting from the current reporting method. On the other hand, the amortized cost data is all on a known, consistent basis but it is still not reflective of market behavior. Therefore, although neither form of price data resulting from Reporting Candidate III is particularly meaningful for market participants, it is more meaningful than the data resulting from Reporting Candidate II because it is possible for the participants calculate meaningful data from the reported (not amortized) data. However, doing so requires monitoring and extracting the reported data for each registration as it posted by AQMD, so it is not convenient or user friendly. Alternatively, AQMD may set up to post both sets of data. This will impose additional administrative cost and delay the availability of these data. Meaningful IYB cost data is completely unavailable under Reporting Candidate IV, on the other hand, because this candidate does not even recognize IYB trades.

Reporting Candidates I and III do not impact market dynamics. The structured yet artificial reporting requirements of Candidate II may have a moderate dampening effect on the trading market. Candidate IV, however, would create a substantial obstacle to trading—it does not allow any trades involving RTC beyond the fifteenth compliance year after the one in which the trade is registered.

Market Price

In theory, no change in market price of RTCs is expected to result from implementation of Reporting Candidates I, II, or III because they simply change the way in which trades are reported without any change in what can be traded. However, it is possible that more burdensome reporting requirements could have minor impacts on prices. This should not be the case for Reporting Candidates I and III because they result in simplified reporting and no change in reporting, respectively. However, Reporting Candidate II highly-structured and reporting requirements, which are not reflective of market behavior, could have such an impact. Reporting Candidate IV, on the other hand, eliminates the reporting of IYB trades, making the reporting of such trades much more complicated and inconvenient. Therefore, this candidate may have an impact on IYB prices.

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Furthermore, the reporting of IYB trades as a series of discrete trades reported over time may impact the price of discrete trades.

A straw poll was conducted at the Working Group meeting when these four candidates were first introduced. The results of the straw poll were in-line with the above analysis which predicts higher participant acceptance for Reporting Candidates I and III than either II or IV. In fact Candidate IV was outright rejected by the attendees at the meeting as it received no support.

D. How Much Administrative Burden does the Candidate Method Impose on AQMD?

Additional administrative burden for AQMD resulting from the implementation of any reporting candidate depends on the extent to which AQMD is required to:

- Define and implement a calculation method and variables;
- Expend more time reviewing and processing trades;
- Expend more time interpreting and summarizing trade data;
- Process an increased trade volume;
- Provide training and outreach;
- Modify program provisions necessitating Governing Board action; or
- Modify the RTC trade software or the database structure.

A calculation methodology and corresponding variables for amortizing the price of reported infinite trades is needed for Reporting Candidate III. This economic calculation is well documented, however it will need to be implemented manually until the RTC trade software can be updated to automate it (see below). Therefore, implementing Reporting Candidate III's amortization calculations will entail appreciable administrative burden for AQMD in terms of interpreting reported trade data, translating it into a standard form, and amortizing it. Candidates I and II require separate averaging calculations for discrete versus IYB trade prices. This calculation is far simpler than that required for Candidate III. Candidate IV eliminates IYB trades and limits discrete year trade to a fixed (*i.e.*, 15 years) period. So, it actually simplifies the calculation currently performed. Therefore, Candidate III imposes the most significant calculation changes among all the candidates and a correspondingly more significant administrative burden.

The AQMD utilizes a custom software program for registering and tracking RTC trading information and updating the RTC listings. The program will have to be modified to a certain extent to support any of the four candidates. However, Candidate III will require the most extensive change to this application and, therefore, the longest period of time to accomplish the task. Candidate II will require the least amount of changes to the current application.

Reporting Candidates II and III would have no impact on trade volume. Reporting Candidate I may result in a slight increase in trade volume because it does not allow discrete and IYB trades to be combined in a single registration. Reporting Candidate IV has the greatest potential to increase the volume of trades because it requires each IYB trade to be reported incrementally over time.

With respect to training and outreach, Candidates I and II require minimal internal training, but outreach is needed to familiarize market participants with changes in reporting requirements. In the case of Candidate III, internal training would be required to familiarize staff with the calculation methods and parameters involved

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and to identify infinite trade streams. Though Candidate III does not require changes in current reporting, outreach would be needed to explain the calculation methodology to market participants. Training and outreach required for Candidates II and IV would be minimal.

Lastly, Candidate I and II involve setting new Section 39616(f) review thresholds, which requires AQMD Governing Board action. In addition to a delay in implementation, this would also entail additional staff time to develop the proposed thresholds.

Reporting Recommendation

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CHAPTER 3
RULE 2015(b)(6) AND CALIFORNIA HEALTH & SAFETY CODE SECTION 39616(f) PROGRAM REVIEW

Summary

This chapter presents the results of the RECLAIM evaluation and review conducted pursuant to Rule 2015(b)(6) and the reassessment conducted pursuant to Health and Safety Code Section 39616(f) as a result of the cost of RTCs traded in 2006. These analyses demonstrate that RECLAIM provides adequate incentives to comply and compliance remains high, that it remains possible for AQMD to obtain appropriate penalties in cases of noncompliance, and that no amendments are needed to the program to ensure continued compliance.

Background

When Regulation XX – Regional Clean Air Incentives Market (RECLAIM) was adopted in October 1993 it was the first air quality program of its kind in the world. Therefore, it included a rule (Rule 2015 – Backstop Provisions) dedicated to monitoring the program's success at achieving its air quality objectives and establishing measures to be implemented under various circumstances to ensure the program remains on track and rectify any problems which develop. Similarly, the California legislature included a provision in the legislation enabling the development and adoption of market-based incentive programs calling for program reassessment "if the market price of emission trading units exceeds a predetermined level set by the district board" under Section 39616(f) of the California Health and Safety Code. The Annual Report on RECLAIM for Compliance Year 2005 found that the average annual price for Compliance Year 2010 RTCs traded in Calendar Year 2006 exceeded the threshold of $15,000 per ton under Rule 2015(b)(6). Therefore, the AQMD Governing Board directed staff to conduct an evaluation of RECLAIM in accordance with Health and Safety Code 39616(f) and Rule 2015(b)(6).

SCAQMD Rule 2015(b)(6) Evaluation and Review

Assessment of Rates of Compliance with Applicable Emission Caps

RECLAIM facilities have the ability to buy or sell RTCs at any time during a compliance year in order to ensure that the facility holds sufficient RTCs for the compliance year. A facility has both a quarterly compliance requirement and an annual compliance requirement. At the end of the reconciliation period for each of the first three quarters (30 days after the end of the quarter) and each compliance year (60 days after the end of the compliance year), a RECLAIM facility must hold sufficient RTCs in its allocation account to reconcile its compliance year-to-date emissions (*i.e.*, the facility must hold sufficient RTCs

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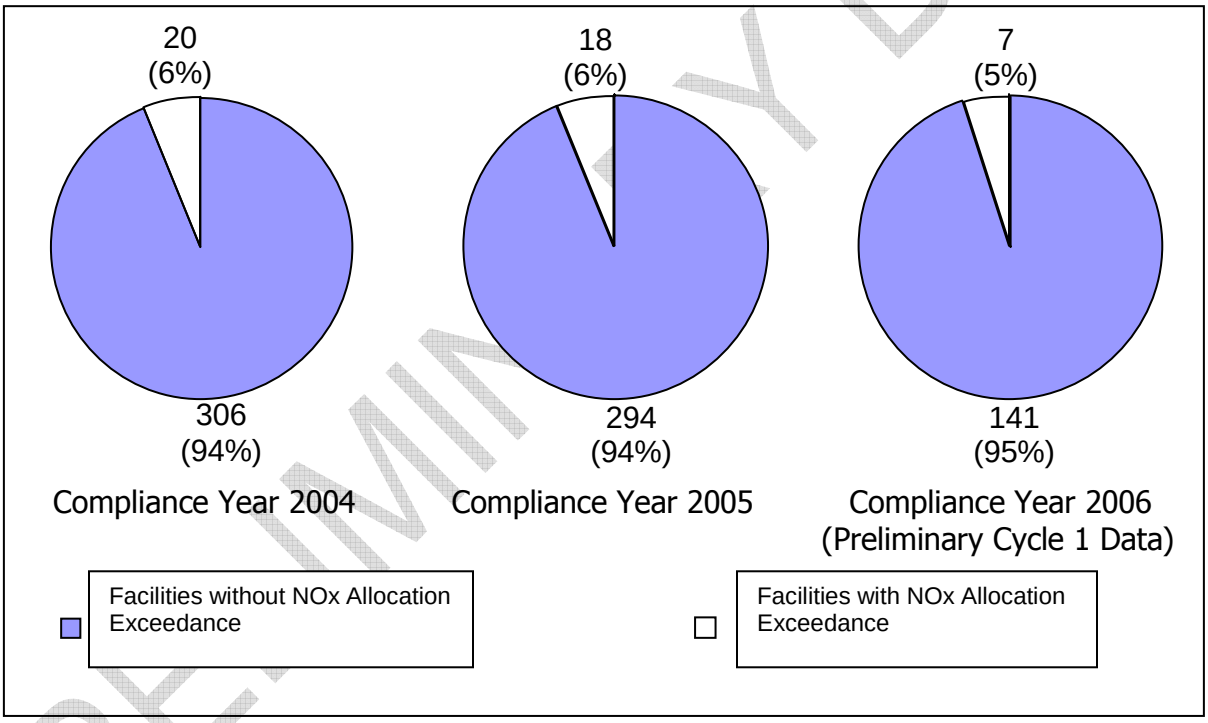
valid during the compliance year to offset the facility's RECLAIM emissions for the compliance year pursuant to Rule 2004(b)).

Based on emissions certified by facilities' Quarterly Certification of Emission Reports (QCERs) and Annual Permit Emissions Program (APEP) reports and on completed audits conducted by AQMD staff, RECLAIM facilities have always accomplished a high rate of compliance with their allocations. From the early years in the program when facilities were still sorting out all the RECLAIM requirements to the present, the allocation compliance rate in the NOx universe has always been 80 percent or higher. And in each of the most recent compliance years (based on data collected as of May 31, 2007), only five to six percent of NOx facilities exceeded their allocations, as shown in Figure 3-1. Similarly, Figure 3-2 clearly shows that the total amounts of those exceedances are not increasing over the same time period.

Figure 3-1
Summary of Recent Years' NOx Allocation Compliance Rates



Even during the height of California's energy crisis in 2000 and 2001, when there was a shortage of then-current NOx RTCs, the NOx allocation compliance rates were 80 and 91 percent, respectively. For facilities in the SOx universe, the allocation compliance rate for each compliance year was 100 percent except for 1999, 2002, and 2003 when it was 97 percent, 95 percent, and 97 percent, respectively.

Therefore, the high average annual price of Compliance Year 2010 NOx RTCs traded in Calendar Year 2006 does not appear to have affected allocation compliance rates. This result is not surprising because the cost of RTCs valid four years in the future is not expected to impact the current compliance rate, and

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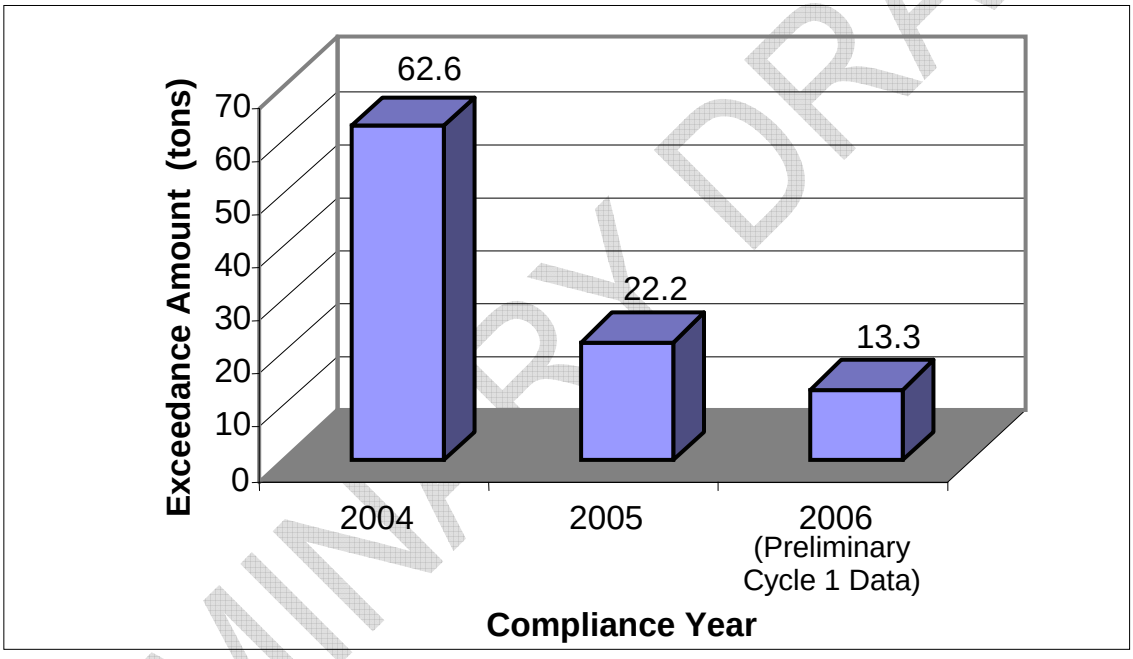
because these RTCs are not applicable to any emissions until Compliance Year 2010. RECLAIM facilities still have sufficient time to react to the price of Compliance Year 2010 RTCs as they deem appropriate, such as taking action to reduce RECLAIM emissions before 2010 becomes current. Furthermore, as discussed in Chapter 1, the high price of Compliance Year 2010 NOx RTCs traded in Calendar Year 2006 appears to be an artifact of arbitrary price reporting for IYB trades rather than of elevated prices for 2010 RTCs alone.

Figure 3-2
Summary of Recent Years' NOx Allocation Exceedance Totals



Assessment of the Rates of Compliance with Monitoring, Reporting and Recordkeeping (MRR) Requirements.

The flexibility that facilities have to manage their emissions with respect to allocations must be supported by standardized MRR requirements to ensure the reported emissions are real, quantifiable, and enforceable. Furthermore, in order to meet clean air goals, AQMD must ensure that the annual emissions targets for the RECLAIM facilities are being met. As a result, compliance with MRR requirements is one of the most critical elements of the RECLAIM program.

The MRR requirements were designed to provide accurate and up-to-date emission reports and are the basis for determining mass emissions from RECLAIM facilities. Failure to obtain quality assured data from the monitoring equipment or failure to file daily emissions reports by the time due results in emissions determined instead by a rule prescribed methodology known as Missing Data Procedure (MDP). Based on the performance of the monitoring equipment *(i.e.*, availability of quality-assured data), MDP uses a tiered approach to calculate emissions. As availability of quality-assured data increases, the

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calculated emissions become more representative of the actual emissions. MDP serves both to provide a means to determine emissions when no real data is available and to provide added incentives for maintaining the monitoring equipment in good order.

In terms of emission potential in the RECLAIM universe, major sources, which are relatively few in number (17 % of all NOx sources and 63 % of all SOx sources at RECLAIM facilities), represent a majority of the total RECLAIM emissions from all equipment (81% of NOx emissions and 99 % of SOx emissions). Continuous emission monitoring systems (CEMS), which are the most accurate and reliable method monitoring emissions as well as the most expensive, are required for all major sources.

To verify the quality of CEMS, Relative Accuracy Test Audit (RATA) testing compares the CEMS data to reference method data taken simultaneously by private sector testing laboratories approved under the AQMD Laboratory Approval Program. Except for the initial years of the program, the overall compliance rate for RATA testing for each compliance year has been very high if not perfect (98% to 100% compliance rate for Calendar Years 1997 through 2006).

Table 3-1 summarizes the quantities of Notices to Comply (NC)and Notices of Violation (NOV) citations issued pertaining to RECLAIM MRR requirements for major sources, large sources, process units, and Rule 219 equipment for Compliance Years 2004, 2005, 2006, and 2007:

Table 3-1
Summary of MRR NCs and NOVs by Calendar Year of Violation

		Total MRR Count	Monitoring	Recordkeeping	Reporting	Count of Facilities**
Calendar Year 2004	NC	84	7	18	59	93
	NOV	62	14	2	46	
Calendar Year 2005	NC	57	4	10	43	83
	NOV	49	7	0	42	
Calendar Year 2006	NC	51	6	11	34	55
	NOV	33	7	1	25	
Calendar Year 2007*	NC	11	0	1	10	13
	NOV	3	1	0	2	

* Violations issued as of May 8, 2007

** The count of facilities with violations in a single year is less than the count of violations in that year because individual facilities can receive multiple citations.

Theoretically, high average annual RTC prices for future years lead to higher non-compliance with MRR requirements because these higher costs of credits can provide RECLAIM facilities with the incentive to underreport their true emissions. However, according to the data in Table 3-1, neither the number of facilities with MRR violations nor the number of NCs, NOVs, or overall violations has increased in recent years. Therefore, MRR compliance has not been

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adversely impacted by the high cost of Compliance Year 2010 RTCs traded in Calendar Year 2006. It is also noted that violations can increase over time as additional audits of facility records are completed.

Assessment of the Ability of the South Coast Air Quality Management District to Obtain Appropriate Penalties in Cases of Noncompliance

California Health and Safety Code Sections 42402 through 42402.4 prescribe maximum allowable penalties. However, the amount of penalties which may appropriately be assessed with regard to any particular violation is dependent upon the level of culpability of the violator as evidenced by a number of relevant factors described by statute, *e.g.*, duration of violation, amount of emissions, harm, etc. Section 42403 mandates that all relevant factors must be taken into consideration when fixing penalties, including, but not limited to eight specified factors[1]. Thus, after the *prima facie* elements of the violation have been established and the maximum allowable penalties have been determined, the statutory factors specified in Section 42403 must be considered in determining the appropriate civil penalty for the particular violation under consideration.

Violations of emissions caps and MRR requirements are documented by the issuance of Notices of Violations for violation of Rules 2004(d)(1) [emissions in excess of annual allocation], 2004(f)(1) [violation of permit conditions], 2011 [SOx requirements] and 2012 [NOx requirements]. The statutory maximums per civil penalty for such violations range from up to $10,000.00 per day for non-emissions violations, *e.g.* MRR violations; up to $25,000.00 per day for negligent emissions violations; up to $40,000.00 per day for knowing emissions violations; and up to $75,000.00 per day for willful and intentional emissions violations. Substantially higher penalties may also be available when the violations result in great bodily injury or death and when the violator is a corporation.

Review of the range of penalties collected by AQMD for violations of Rules 2004(d)(1), 2004(f)(1), 2011 and 2012, after taking into consideration the *prima facie* elements and all relevant factors mandated by California Health and Safety Code Section 42403, indicate that the current statutory penalty structure is adequate to provide necessary deterrence of violations. None of the cases reviewed indicate that the penalties sought were artificially limited by the statutory maximums. Indeed, a number of the cases reviewed recovered civil penalties in excess of one million dollars.

Assessment of Whether the Program Provides Appropriate Incentives to Comply and Assessment of the Deterrent Effect of Rule 2004(d)(1) through (d)(4)

Subparagraphs (d)(1) through (d)(4) of Rule 2004 are intended to deter violations by prohibiting emissions in excess of a facility's annual allocations. They do so by providing that each day of excess emissions may constitute a separate violation and also by providing that each 1,000 pounds of excess emissions or portion thereof (500 pounds or portion thereof if the average annual price of

[1] Extent of harm, nature and persistence of the violation, duration of violation, frequency of past violations, record of maintenance, unproven or innovative nature of the control equipment, any action taken by the defendant to mitigate the violation, and financial burden to the defendant.

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RTCs exceeds $8,000 per ton) may constitute an additional violation count. Thus, RECLAIM has an automatic adjustment to the penalty structure for excess emissions if the cost of RTCs exceeds $8,000 per ton. Furthermore, the compliance data discussed above clearly indicates that compliance with RECLAIM's emissions (allocations) and MRR requirements continues to be high despite the increased cost of future year RTCs traded in Calendar Year 2006. Additionally, the maximum statutorily available penalties have not limited the penalty assessments sought by AQMD, so there is room for the penalties assessed to increase as the cost of RTCs increases so as to ensure that noncompliance does not become a financially-attractive option for RECLAIM facilities. These factors combined indicate that RECLAIM continues to provide adequate and appropriate incentives for facilities to conform to their compliance obligations.

Recommendation Regarding the Need to Amend Rule 2004(d)(1) through (d)(4).

Based on the foregoing, it appears that the current requirements of Rules 2004(d)(1) through (d)(4), in conjunction with the current statutory penalty structure and other RECLAIM provisions, continue to be adequate to ensure compliance. Accordingly, it is recommended that the provisions be continued without change.

California Health and Safety Code Section 39616(f) Assessment

Although the $15,698 per ton per year average price found by the Governing Board to exist for Compliance Year 2010 NOx RTCs traded in Calendar Year 2006 is well below the $34,008 per ton per year Health & Safety Code Section 39616(f) threshold ("predetermined level"), the Governing Board directed staff to perform a program review pursuant to §39616(f) to ensure the most conservative evaluation and as a means to evaluate review thresholds applicable to IYB trades of NOx and SOx.

Based upon the evaluation in the March 2, 2007 Annual RECLAIM Audit Report for the 2005 compliance year, the underlying cause of high calculated average prices appears to be the way prices are reported and average annual prices are calculated for IYB of RTCs[2]. The potential adverse impacts of high RTC prices pertain to the same compliance issues addressed by Rule 2015(b)(6). The above Rule 2015(b)(6) evaluation fully addresses all of these compliance issues, as well as market issues such as the impacts from arbitrary price reporting for IYB trades and from investor participation. Therefore, no additional Section

[2] As presented in the Annual RECLAIM Audit Report for 2005 Compliance Year (March 2007), the calculated average annual price of discrete credits was significantly impacted by infinite-year block trades because such trades were not envisioned or approvable at the time of program adoption. As such, the average annual price calculation uses only the price per pound data for each of the years reported as single year line items and excludes the price reported as line item infinite-year blocks. Any given infinite-year block trade can be reported in various ways according to the needs of the parties involved (*e.g.*, accounting practices or tax concerns). Therefore, these arbitrarily-created single year line items of IYB trades are included in the price averaging process by the current price reporting calculation as if they were discrete trades.

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39616(f) evaluation is warranted in this case. However, the need for establishing separate review thresholds applicable to IYB trades is further assessed in this report and is dependent upon the reporting method to be implemented.

Comments Received from Working Group Regarding Compliance and Enforcement Aspects of RECLAIM

One oral and one written comment were received addressing the review of compliance and enforcement aspects of the RECLAIM program required under Rule 2015(b)(6). The oral comment was that compliance rates are high and there should be no increase in penalties imposed under Rule 2004(d)(1) through (d)(4). The written comment was from an industry group and was related to the issue of whether Rule 2004(d)(1) is sufficiently stringent to deter violations. The letter stated that no increase in non-compliance has been observed, and therefore, enhanced penalties are unwarranted.

Two other letters commented on the issue of establishing a new threshold price for IYB trades. One from a RECLAIM facility stated that no new threshold is needed for discrete year trades and that $125 per pound would be a reasonable price level for triggering the review required by Health & Safety Code section 39616(f). The other one was from an industry group and requested that staff keep in mind the intent of Section 39616, which was to ensure that the RECLAIM program does not result in higher costs to business than would be incurred under command-and-control. They did not recommend a specific price review level.

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CHAPTER 4
IMPACT OF INVESTORS ON THE RTC MARKET

Summary

Investors have been increasingly active in the RTC trading market, particularly with respect to infinite-year block (IYB) trades. They were involved in more than ninety percent of all IYB trades in calendar year 2006 and in all IYB trades in 2007. As of May 2007, they hold 3.9 % of IYB NOx RTCs. Investors have the potential to provide capital to the market which can be used to fund emission controls. On the other hand, if RECLAIM emissions approach aggregate allocation in the future resulting in a sellers' market, investors' participation in the market may result in increased compliance cost for RECLAIM facilities.

Background

The RECLAIM trading market is open to all parties interested in participating in the buying and selling of RECLAIM Trading Credits (RTCs), not just to RECLAIM facilities. Trading participants other than operators of RECLAIM facilities are known as investors. They include individuals, investment firms, energy traders or wholesalers, potential future RECLAIM facility operators, mutual funds, foreign entities, and brokers with non-escrow RTC holdings (typically brokers only hold RTCs for escrow purposes, which is not considered investment activity, but there have been cases of brokers purchasing RTCs for other purposes). Investors, as a trading group, are very active in the RTC market. Investors participated in over 90% of IYB Calendar Year 2006 trades (see Figure 4-1). Members of the Governing Board have expressed interest in obtaining a better understanding of investors' role in the RTC market. This chapter examines investors' impacts on trading IYB credits in the RTC market.

In Calendar Year 2006 on a pounds traded basis, "investor-only" trades accounted for 30% of all sales and "investor-related"[1] trades accounted for 92% of all IYB sales. In contrast, "non-investor only" trades consisted of only 8% of all IYB sales. Similarly, when looking at the same trade data with respect to value, "investor-only" trades accounted for 60%, "investor related" trades accounted for 95%, and "non-investor only" trades consisted a mere 5% of all IYB sales for Calendar Year 2006. Figure 4-2 shows that all trades in 2007 as of May 1 were either investor to investor or investor to non-investor trades. No direct IYB trades between RECLAIM facilities have occurred in 2007.

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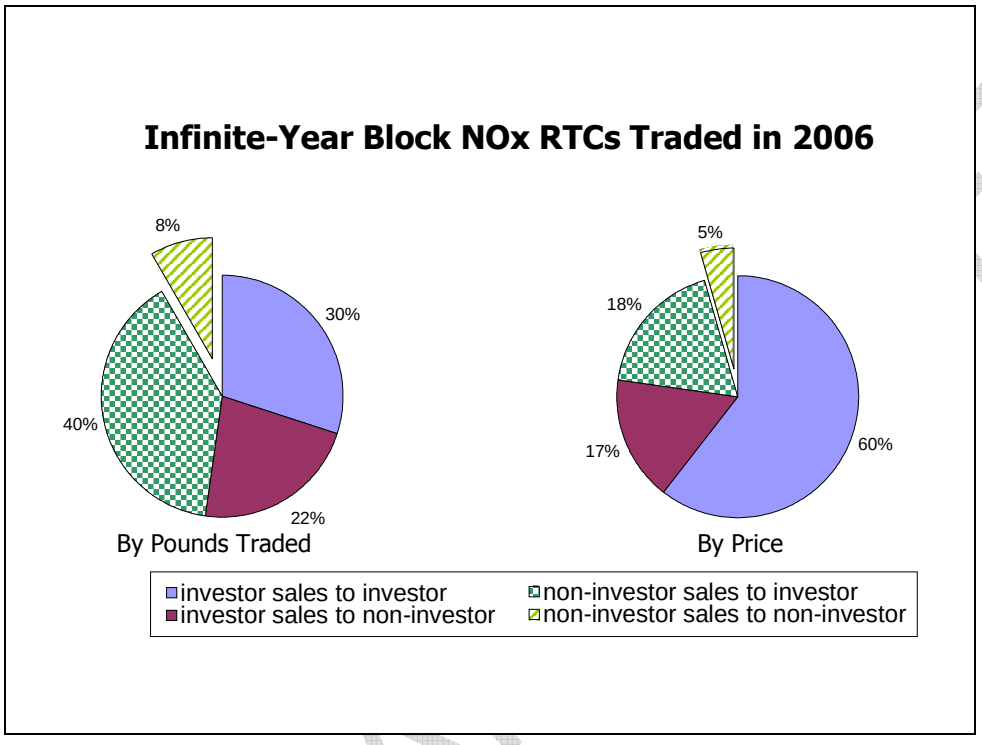
[1] The seller is an investor, the buyer is an investor, or both are investors.

Figure 4-1: Quantity and Value of IYB NOx RTC Sales in Calendar Year 2006



It should be noted that data shown in Figure 4-2 is only representative of a third of Calendar Year 2007, which may account for the absence of "non-investor-only" IYB trades. Nonetheless, with respect to pounds "investor-only" IYB trades represent 79% and "investor-related" IYB trades represent 100% of all IYB sales. With respect to value, "investor-only" trades represent 84% and "investor-related" trades represent 100% of all 2007 IYB sales. These data, those for 2007 in particular, indicate that the majority of available IYB RTCs are being bought up by investors as a group. Furthermore, the prices traded for IYB RTCs continue an upward trend.

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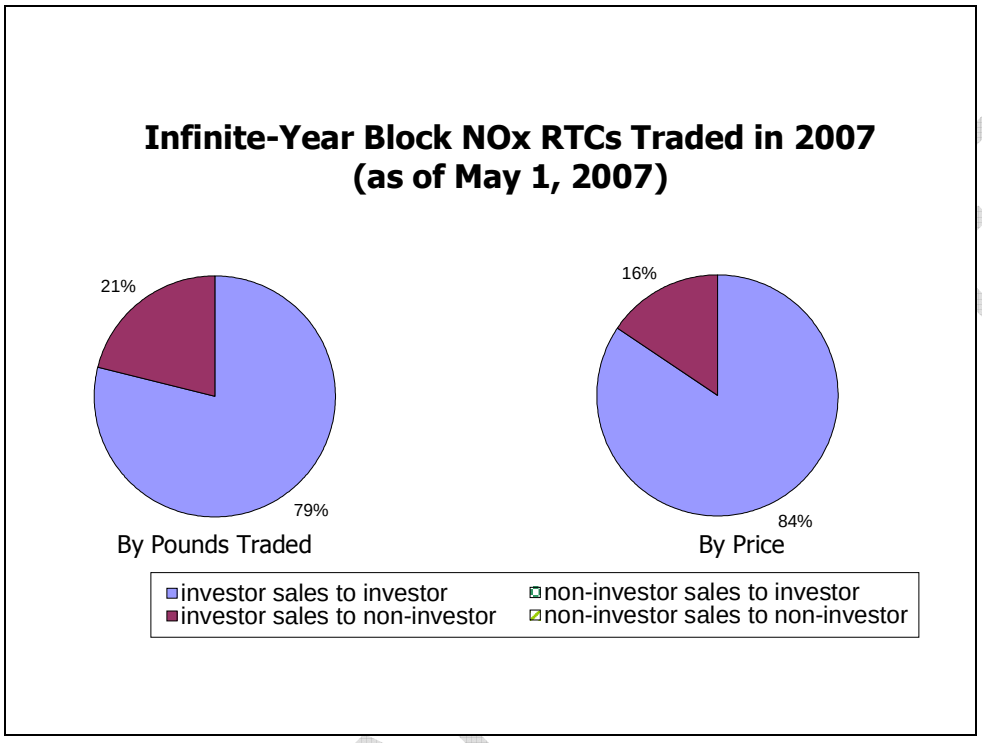
Figure 4-2: Quantity and Value of IYB NOx RTC Sales in Calendar Year 2007



Investors' Impact

A central assumption in the theory of market incentive programs is that air pollution controls will be implemented based on market forces. That is the lowest cost controls will be instituted as long as they are less expensive than the market price for credits. Theoretically, the role of investors in this market is to provide capital for installing air pollution control equipment that cost less than the market value of credits. In addition, investors can also improve price competitiveness. However, as experience has shown, market theories have not always held true in RECLAIM. The uniqueness of the RECLAIM program may also alter this market theory in that RECLAIM facility operators have no substitute for RTCs because they have the obligation to reconcile their emissions with RTCs and pollution controls cannot be implemented within a short time period. Therefore, they may be at the mercy of other owners of surplus RTCs in the short term as evidenced in 2000 and 2001 during the California energy crisis. On the other hand, investors bear no compliance responsibility, and therefore, can hold out for higher prices.

IYB RTCs represent an even more critical aspect of the program in that these streams of RTCs are sought after to support growth at new or existing facilities. As such, active facilities are less likely to sell their future year RTCs as IYB. The supply of IYB RTCs available for sale was mainly from facilities that have permanently shut down or from conversion of traditional emission reduction credits at the start of RECLAIM.

Examples of Financing Air Pollution Control though Credit Sales

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AQMD staff conducted a search for examples of installation of air pollution control equipment that directly resulted from credit sales. The search yielded two examples. Both examples involved cogeneration facilities. In one case a new selective catalytic reduction system was installed and the resultant excess credits were sold. The second example showed credit sales directly financed the purchase of a new catalytic reactor at a similar type of facility. It is noted that both facilities had only one single source of emissions and the surplus credits were not needed internally to the facility. The reason that more examples were not apparent may be due to the lack of direct link between installation of air pollution control system and the sales of credits. This is because some facilities might have retained the surplus credits for internal use instead of purchasing credits which would otherwise be necessary.

While it is true that the holding of IYB RTCs by investors as group is small (3% as of the end of 2006) relative to the total supply of IYB RTCs, there is no clear data to indicate the level of IYB RTCs available for sale. Therefore, it is not possible to determine whether this holding is significant enough to allow price manipulation by an individual investor or a group of them. The recent rise in holding of IYB RTCs by investors may represent a potential for further price increases for this type of RTCs.

Current data indicates that the trading activity of IYB RTCs by investors is high and the prices of these credits are increasing. Even though no evidence exists that investors are manipulating prices through the hoarding of credits, the potential of investors' involvement creating an adverse impact on RTC availability and price still exists. AQMD will continue to monitor investor participation in the RTC market and keep the Governing Board apprised of any adverse changes that occur as results of their involvement.

Investors' RTC Holdings, Total Allocations, and RECLAIM Emissions

When figures similar to Figures 4-1 and 4-2 were presented at the second Working Group meeting, participants stated that the figures were misleading and that it would be more appropriate to look at investors' holdings rather than their participation in trades. As of June 2007, investors hold 382 tons of compliance year 2011and beyond RTCs (3.9 % of the total 9,676 tons of compliance year 2011 NOx allocations). To put this in context, with the exception of the energy crisis during 2000 and 2001, there has typically been approximately a twenty percent overall surplus of NOx RTCs at the end of each compliance year. It has been reported that RECLAIM facilities have generally held back approximately 10 % of their allocations each compliance year to ensure that they do not inadvertently find themselves in the position of exceeding (failing to reconcile) their allocations if their reported emissions are increased as the result of any problems or errors discovered by AQMD inspectors during annual audits. On the other hand, total RECLAIM NOx emissions during compliance year 2005 were 9,556 tons. Therefore, if total RECLAIM NOx emissions were to remain constant, the NOx RTC surplus in 2011 will only be 120 tons (1.2 %). Overall emissions in RECLAIM will certainly change from now through 2011 and can be affected by various factors including: further installation of emission control equipment, change in production, and shift in industry sectors. In January 2005, AQMD identified cost effective control opportunities outside the power producing industry sector that would amount to 3.7 tons per day of additional NOx reduction based on historical production rates. The significance of the investors' holding

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will certainly depend on the ability of RECLAIM facilities to generate adequate surplus RTCs in time to dampen the effect of a sellers' market which may exist if the demand surges in a short period of time similar to the situation during the California energy crisis of 2000-2001.

Opinions Expressed by Working Group Participants

Reaction to the presentation on the role of investors in the RECLAIM market was split. Some representatives from RECLAIM facilities expressed concern that investors, whose goal is to profit from trading activity, are likely to drive up the price of RTCs. These individuals agreed with staff that there could be negative consequences for facilities that fail to install controls. RTC brokers, however, stated that the presentation was misleading in that it over-emphasized the role of investors in the market and the potential for negative impact. They pointed out that investors hold a small percentage of the RTC supply and that investors are a necessary part of a healthy market because they increase liquidity. They also suggested that the staff presentation had exaggerated the influence of investors by including planned start-up facilities in the investor category. They further indicated that they have not had difficulties in matching up buyers with sellers of IYB credits.

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APPENDIX A
SAMPLE SURVEY FORM

Survey
of
Average Prices for Infinite-year Blocks of RTCs.

Please provide either:

Facility Name:	AQMD Facility ID:
Or	
Nature of your business:	

Have you purchased infinite-year blocks of RTCs* in the past? Yes No

If yes, please describe the reason(s) (i.e., used for a specific planned project) for the RTC purchase and specify what was the planning cycle or assumed life for the RTC purchased (i.e., assumed amortization period for the cost of the RTC - this may be longer than the life of the project): [Attach separate sheets if necessary]

If your company were to purchase infinite-year blocks of RTCs*, is there any existing practice for amortizing assets such as these RTCs? Yes No

If yes, please specify the expected planning cycle or assumed life for the RTC purchased (i.e., assumed amortization period for the cost of the RTC-this may be longer than the life of the project):

* RTCs that are valid from any start year and extend infinitely forward in time

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APPENDIX B
WORKING GROUP PARTICIPANTS

Name	Company Name	1st Meeting	2nd Meeting	3rd Meeting
Amylou Canonizado	Los Angeles World Airports		X	
Ashok Khanna	Anheuser Bush	X		
Bill Quinn	CCEEB		X	
Bruce Moore	LADWP	X		
Christine Grandstaff	Cantor Fitzgerald	X	X	
Clay Totten	Criterion Catalyst Co. LP		X	
Curt Kaminer	TEP 2	X	X	
Curtis Coleman	So Cal AQ Alliance		X	
Daniel Monette	Toyota	X	X	
Dennis Fachler	TAMCO Steel	X	X	
Desirea Haggard	TXI Riverside Cement Co.		X	
Devin Burns	City of Burbank	X		
Diana Lang	Thums Long Beach Co.		X	
Grace Madden	Kimberly Clark		X	
Harold Buchanan	CE2	X	X	
Jack London	Exide Tech	X		
Jason Backeol	Baker Commodities	X		
Jay Grady	Cal Portland Cement	X		
Jeff Simko	RICOH	X		
Jim Patton	Blue Heron	X		
John Furlong	SCEC	X		
Jon Owyang	Market-Based Solutions, Inc.		X	
Joseph Hower	Environ	X		
Koishun Nand	City of Vernon	X	X	
Lisa Chynoweth	Northrop Grumman	X		
Lisa Dugas	LAWA	X		
Lisa Woo	Emission Credits Exchange	X	X	
Lyle Nelson	SCE	X	X	
Marcus Ruscio	Valero	X	X	
Marjorie Bennett	Trinity Consultants		X	
Michael A. Beasley	Boeing		X	
Michael Binder	Boeing		X	
Mike Carroll	LCW	X		
Mitch Haimov	SCAQMD.	X		
Mithun Rathore	ICAP United Inc.		X	
Naro Kuch	Sierra Al. Co	X	X	
Ngiabi Gicuhi	Plains All American		X	
Noel Muyco	So Cal Gas	X	X	
Paul Kuhlman	Ice Energy Inc.		X	
Rad Akkinepalli	Cherry Aerospace		X	
Rafi Ahmed	Chevron	X		

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Name	Company Name	1st Meeting	2nd Meeting	3rd Meeting
Randolph C. Visser	Sheppard , Mullin, Richter & Hampton LLP	X		
Rhonda Moore	B. Braun Medical Inc.		X	
Richard Friedman	Earth Guard Environmental Service.	X		
Robert Logan	Arroyo Energy	X		
Robert Poitras	GESCO	X		
Ron Frazer	Northrop Grumman		X	
Saad Askander	Vought Air Craft		X	
Samantha Unger	Evolution Markets	X	X	
Stan Hom	Exxon Mobil	X		
Thomas A. Miller	ZMASSOCIATES Inc		X	
Thomas Ishii	So California Gas	X	X	
Tina Heath	Trigen Companies	X	X	
Tony Endres	Energy Services Corp.		X	
Viji C. Sadasivan	AEC Inc.	X		
Zach Muepo	SEMPRA	X	X	
Zor Rothman	Grey K Fund	X		

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APPENDIX C
COMMENT LETTERS

Thomas Ishii
Project Manager
Planning & Project Development

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Los Angeles, CA 90013-1011

Tel: 213.244.5440
FAX: 213.244.8232

Southern California Gas Company®

A Sempra Energy® utility

May 29, 2007

Mr. Mitch Haimov
Senior Air Quality Engineer
RECLAIM Administration Team
South Coast Air Quality Management District
P.O. Box 4830
Diamond Bar, CA 91765

Dear Mitch:

The Southern California Gas Company is hereby submitting its comment to the RECLAIM Working Group on the methodology of reporting infinite year block trading prices. Specifically, Four Options or proposals were presented by District Staff on the future reporting of infinite year block trades at the meeting held on May 17, 2007. The discussions on the relative merits of each Option at the meeting were useful in formulating our response.

The Southern California Gas Company feels that Option #1, where discrete year and infinite block trades are separated in the transaction registration process, is most appropriate. This Option will provide the necessary transparency for RECLAIM facilities to follow current pricing trends for both discrete year and infinite year block trades. As to the matter of establishing a threshold price for infinite year block trades, we feel that an average price of $125 per pound may be appropriate. The threshold price for a discrete year trade should remain unchanged at $7.50 per pound.

If you have any questions, please contact me at (213) 244-5440.

Sincerely,

Tom Ishii

cc: Lee Wallace, Sempra Energy Utilities

Southern California Air Quality Alliance

May 31, 2007

SENT VIA E-MAIL

RECLAIM Administration Team
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

Attention: Mitch Haimov

Re: Comments on the Calculation Methodologies for "Infinite Year Block" Trades

Dear Mr. Haimov:

On behalf of the Southern California Air Quality Alliance (SCAQA) and as a participant in the RECLAIM Working Group, I hereby submit comments on the above referenced matter.

We appreciate the approach the District is taking in this matter in seeking input from stakeholders for the best approach to deal with the issue of valuing infinite year block trades for purposes of determining whether the program review threshold has been triggered under Rule 2015(b)(6). We believe that it is appropriate for the District to develop a common method for "normalizing" the value of such trades for purposes of determining whether the 2015(b)(6) threshold has been exceeded. However, we also believe that the parties to such a transaction should have the ability and right to set their own valuation on an RTC trade transaction, or its component parts. This is not an irreconcilable conflict, as the District's normalizing analysis is for its purposes only, and need not affect how the parties value credit streams or portions thereof.

With these thoughts in mind, SCAQA proposes that three principles be used to guide the formulation of a normalization method.

1. The parties to an RTC trade should be free to structure the transaction in any way they wish, and place their own value on different portions of the transactions (e.g., first year, second year, third year, etc., or separate blocks of years). The District should be concerned with the total amount paid for the total number of pounds, and the number of pounds per year for whatever number of years are covered by the trade.

2. The District should then use a standard method of analyzing and normalizing the transaction cost on a dollars per pound basis. We believe that amortizing the cost over a standard period using an appropriate capitalization (discount rate) for future years would allow the District to calculate a "net present value" on a dollars per pound basis. We would note that in this analysis, the present value of pounds in "out years" would add very little to the net dollars per pound price).

The concern of the District should really be the cost of RTCs in the near term (2-5 years) rather than the cost of credits in later years. To the extent that the

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Mr. Mitch Haimov
May 31, 2007
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analysis and normalization process provides cost data on RTCs trading in the near term, it will serve the purpose of alerting the District and market participants of potential shortages, price increases, and Rule 2015 triggers. Out year prices may provide an indicator of where the market is heading, but there will also be sufficient lead time to allow market participants to adjust. In that sense it has value. But it is the near term prices that should be the basis for triggering program review.

We look forward to working with you in the final development of a normalization method.

Very truly yours

Curtis L. Coleman, Esq.
Executive Director
Southern California Air Quality Alliance

California Council for Environmental and Economic Balance

100 Spear Street, Suite 805, San Francisco, CA 94105 • (415) 512-7890 • FAX (415) 512-7897

May 31, 2007

Mr. Mitch Haimov
Senior Air Quality Engineer
South Coast Air Quality Management District
P.O. Box 4830
Diamond Bar, CA 91765

Dear Mitch:

The California Council for Environmental and Economic Balance (CCEEB) wishes to comment to the RECLAIM Working Group on the methodology of reporting infinite year block trading prices as discussed at the working group meeting on May 17, 2007. Specifically, we wish to comment on the four options presented by District Staff on the future reporting of infinite year block trades. At this point, we do not have enough information about each of the options to clearly express our preference. Further, as we discussed in the meeting and as staff itself identified, there are pros and cons with each proposal. However, we can tell you that we oppose option 4.

As a principle, we believe that the ultimate method chosen should offer very high market transparency while minimizing any impact on the current market. Under various scenarios, we believe it is possible that options 1, 2, or 3 could meet this need.

With regard to the offramp itself, we believe it is important to recognize that the goal of the offramp was to ensure that RECLAIM remains cost-effective for its participants compared to the cost facilities would have incurred under traditional command-and-control. In reviewing the Health & Safety Code, we note section 39616(f) says in part:

> In revising the market price review level, the district board shall consider the factors used in setting the initial market price review level as well as other economic impacts, including the overall impact of the program on job loss, rate of business formation, and rate of business closure.

We raise this point, because as part of the needed transparency mentioned above, we believe it would send important market signals if the district could provide information, on an aggregate basis, on such issues as the types of projects being permitted, the anticipated reductions from these projects, the cost of the reductions and if these projects would create any surplus reductions that might be available to the market.

Finally, we wish to comment on the question you raised regarding enhanced enforcement. We believe that the data shows that non-compliance has not increased with higher RTC prices. In

www.cceeb.org

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fact, our understanding is that compliance remains quite good with the program. As such, we do not believe there is a need to increase the stringency of Rule 2004(d)(1) through (d)(4).

We look forward to reviewing your study when released, and we are hopeful that we will be able to provide you with more specific comments at that time.

Thank you for considering our views.

Sincerely,

William J. Quinn

cc: CCEEB Members