

State of California
AIR RESOURCES BOARD

Final Statement of Reasons for Rulemaking Including
Summary of Comments and Agency Response

PUBLIC HEARING TO CONSIDER A PROPOSED REGULATION TO ESTABLISH
A STATEWIDE METHODOLOGY TO CALCULATE THE VALUE OF EMISSION
REDUCTION CREDITS THAT ARE USED INTERCHANGEABLY

Public Hearing Date: May 22, 1997
Agenda Item No.: 97-4-2

I. GENERAL

The Staff Report entitled "Initial Statement of Reasons for Rulemaking: Public Hearing to Consider Statewide Regulation That Provides a Methodology to Calculate the Value of Interchangeable Emission Reduction Credits" was released April 4, 1997, and made available to the public. The Initial Statement of Reasons (ISOR), which is incorporated by reference herein, provides a description of the rationale and necessity for the action proposed. The proposed action consisted of the adoption of new Title 17 California Code of Regulations ("CCR") sections 91500 through 91508.

On May 22, 1997, the Air Resources Board (ARB or Board) held a public hearing at which it received written and oral comments on the proposed regulation. At that time, the Board considered revised language that staff recommended to address issues raised during the 45-day public comment period. At the conclusion of the public hearing, the Board adopted Resolution 97-19 and approved the proposed regulation with the proposed staff modifications. Resolution 97-19 is attached hereto and incorporated by reference herein. On June 13, 1997, ARB made available a Notice of Public Availability of Modified Text, which provided the revised regulatory language for a 15-day public comment period. During the public comment period, which expired June 30, 1997, only one comment was received--from the Santa Barbara Air Pollution Control District.

As approved by the Board, the regulation establishes a uniform credit trading unit and exchange mechanism for stationary, mobile, and area source credits¹. The regulation also establishes a regulatory framework, based upon applicable State and federal requirements, to guide air pollution control districts and air quality management districts (districts) in the development of credit programs. The purpose of the State regulation is to facilitate the use of surplus emission reductions, or credits, as a compliance alternative for meeting district emission reduction requirements, consistent with district plans to achieve and maintain State and federal ambient air quality standards.

II. MODIFICATIONS TO PROPOSED STATE REGULATION

A. Summary of Modifications

Prior to the Board's adoption of the State regulation, the public was given 45 days to review and submit comments on the proposal rule. During this period, nine letters were received. The Board also heard testimony from four witnesses at the May 22, 1997 public hearing. Comments in the letters and by the witnesses raised the following issues: the denomination and lifetime of credits; determining "equivalency" of emission reduction with the use of credits compared to the implementation of specific control requirements in the applicable air quality plan; how the use of credits may affect public exposure to air toxics; methods that would be used to calculate the value of credits; requirements that cover how credits are generated and used; whether the credit trading program would result in additional emission reductions; and procedures that would allow the use of credits pending district adoption of a credit trading program. Many of these comments were accommodated in revisions to the proposed regulation; some were not, and the reasons are provided below.

In addition to the evaluation of significant adverse environmental impacts contained in the Initial Statement of Reasons for Rulemaking, ARB also considered the potential impacts resulting from recommended staff modifications to the rule. These evaluations are contained in the Notice of Decision and Response to Significant Environmental Issues which is attached hereto and incorporated by reference herein.

The proposed regulation, as modified, was brought before the Board at the public hearing. After hearing the public comments and deliberating the issues at the hearing, the Board approved the regulation with the modifications proposed by staff. These changes can be summarized as follows: (1) revised language to clarify that credits must be certified and registered as total

¹ The terms "emission reduction credits," "emission credits," and "credits" are used interchangeably throughout this document.

pounds of pollutant in one year increments; (2) revised language to clarify the procedure and timing for evaluating when RECLAIM² trading credits can be used interchangeably; (3) new language that provides an additional factor to consider when establishing an emission baseline for sources that are not accounted for in the air quality plan; and (4) new and revised language to address the potential for air toxics-related impacts with the trading of volatile organic compound (VOC) emission credits.

These modifications are described more fully in the Summary of Comments and Agency Response.

Because the Board adopted modifications to the proposed State regulation, an additional 15-day public comment period was provided to allow for adequate public comment on the rule changes. Only one comment was received during this period--it was related to certification requirements of the trading unit. After considering the comment, the Executive Officer determined that a regulatory change was unnecessary, since the language was sufficiently broad to allow for the flexibility asked for in the comment. This issue is further discussed below in the response to 15-day comments.

B. Availability of Modified Text

Pursuant to the Board's directions, staff prepared modified regulatory language reflecting the changes approved by the Board. The modified regulation, with the changes to the originally proposed text clearly indicated as required by Government Code section 11346.7(a), were mailed in accordance with section 44, Title 1, California Code of Regulations, on June 13, 1997. The comment period ended June 30, 1997.

After considering the comments received in response to the notice of availability of modified text, the Executive Officer issued Executive Order 98-005 adopting the regulation.

C. Costs to Local Agencies and School Districts

The ARB has determined that no reimbursement is required pursuant to section 6 of Article XIII B of the California Constitution because local agencies have the authority to levy fees sufficient to pay for the program or level of service mandated by these acts, within the meaning of section 17556 of the Government Code. Therefore, the ARB finds that even though costs will be incurred by districts to comply with the requirements of the State regulation, such costs are recoverable through the districts' ability to impose fees on affected regulated sources.

² RECLAIM: The acronym stands for Regional Clean Air Incentives Market, an emissions trading program currently being operated in the South Coast Air Quality Management District.

D. Consideration of Alternatives

Pursuant to Government Code section 11346.9(a)(4), the Board has further determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons than the action taken by the Board.

III. SUMMARY OF COMMENTS AND AGENCY RESPONSE

COMMENTS RECEIVED DURING THE 45-DAY COMMENT PERIOD

In response to the March 25, 1997, Notice of Public Hearing, the Board received written comments from SC Johnson Wax (SC Johnson), the California Council for Environmental and Economic Balance (CCEEB), Southern California Gas Company (Southern California Gas), Southern California Edison (SCE), the South Coast Air Quality Management District (SCAQMD), the U.S. Environmental Protection Agency, Region IX (U.S. EPA), Latham & Watkins on behalf of the Regulatory Flexibility Group (RFG), Hunter-Ruiz on behalf of USA Waste of California (USA Waste), and a joint letter from the Coalition for Clean Air and Natural Resources Defense Council (CCA/NRDC). At the May 22, 1997 public hearing, oral testimony that summarized previous submitted written comments were provided by CCEEB, SCE, Latham & Watkins on behalf of the RFG, and the Coalition for Clean Air on behalf of itself and NRDC. The commenters generally supported the staff's recommendation, but also suggested several additional specific modifications. A summary of written comments on the proposed regulation and the agency responses thereto are set forth below.

GENERAL COMMENTS

1. Comment: If district interchangeable credit trading programs provide alternative compliance mechanisms to regulations approved by U.S. EPA into the State Implementation Plan (SIP), these trading programs must also be approved into the SIP. (U.S. EPA)

Agency Response: We agree that district rules implementing such trading programs must be approved for SIP purposes. The regulation was designed to be consistent with mandatory federal requirements so that districts will not be subject to conflicting state and federal requirements. This should help ensure that district programs adopted in compliance with the statewide regulation are approved by U.S. EPA.

2. Comment: District programs and resulting rules must comply with all Economic Incentive Program (EIP) rules (40 CFR 51.490 through 51.494), regardless of whether these requirements have been specified in U.S. EPA's comments on the State regulation. (U.S. EPA)

Agency Response: We agree that district programs must comply with any national rules that are legally binding federal requirements. We believe that the statewide regulation is consistent with all such requirements so districts are able to comply with both the statewide rule as well as with federal requirements. The statewide regulation or district trading programs are not mandatory federal economic incentive programs. In the preamble to the EIP and in the rule itself, U.S. EPA states that the rule serves as policy *guidance* on discretionary EIPs submitted as SIP revisions.

3. Comment: Federal citations should be specifically referenced where federal requirements are mentioned in the State regulation. (U.S. EPA)

Agency Response: The State regulation contains several provisions that direct districts to ensure that adopted credit trading programs meet all applicable federal and State requirements. Under State law, each district has the responsibility to ensure that its programs meet all such requirements. In addition, ARB is responsible for coordinating activities of districts necessary to comply with the federal Clean Air Act; this includes ensuring that district programs submitted for SIP purposes meet all federal requirements. It is unnecessary to include citations for every applicable federal requirement within the regulation itself since ARB is required to comply with the federal Act and interprets State law to harmonize with it. In addition, it would be an administrative burden for the State to revise the regulation each time a federal requirement was added or changed.

4. Comment: Market uncertainty due to vague or conflicting requirements will result in no market for credits. To increase market confidence, the following principles should be followed: (1) credits must be readily transferable; (2) credit “rights” once established must not be subject to revocation or change; (3) credits must be regulated in a manner similar to other financial instruments; and (4) there should be minimal agency interference with the market. (USA Waste)

Agency Response: We agree and believe that the State regulation not only provides for greater certainty, but also encourages greater regulatory flexibility. With regard to the commenter’s four principles, the ARB offers the following response:

Transferability of Credits: The State regulation establishes a uniform “currency” that provides for the easy transferability of credits whether generated by stationary, area, or mobile sources.

Credit “Rights” Once Established Must Not Be Subject to Revocation or Change:

Section 91504(e) of the State regulation states that, while banked, credits must retain the emissions value calculated at the time of certification and registration. However, districts may establish requirements that affect the *use* of credits that leave the bank. Such requirements may directly or indirectly affect the value of credits upon their use. This district discretion is necessary

to ensure that the use of banked credits does not jeopardize clean air progress (see discussion of program equivalency on page 9 of initial statement of reasons). This approach complies with section 40709(b) of the Health and Safety Code which restricts district banking systems from recognizing any pre-existing right to emit air contaminants, consistent with section 403(f) of the Clean Air Act.

Credits Must Be Regulated Similar to Other Financial Instruments: Although emission credits have a monetary value, they are not regulated by environmental agencies as a financial instrument per se. In addition, section 40710 of the Health and Safety Code states that while credit owners have the exclusive right to use and authorize the use of credits, credit certificates “shall not constitute instruments, securities, or any other form of property.”

Minimal Market Interference: The trading market is expected to operate much like existing emissions banking programs for new sources; that is, market participants can work through credit brokers, credit bulletin boards, or emissions credit exchanges that are established specifically to facilitate trading among market participants. Within this portion of the overall trading program structure, the district’s “market” role should be one of registering trades and providing a public listing of credits.

5. Comment: It appears credits are established on an annual basis. This type of review will allow for substantive changes on an annual basis. We fear such uncertainty will negatively impact market viability. (USA Waste)

Agency Response: In dealing with credit denomination, section 91503 of Title 17 CCR calls for all credits to be expressed in pounds of pollutant “in the year generated.” Section 91503 was subsequently modified as a result of this comment to clarify that credits are to be expressed as “pounds of pollutant in one year increments.”

This change was made to clarify that credits would be granted and accounted for in one year increments; it does not mean that credits are reviewed on an annual basis. While banked, the credits retain their value as described above. The granting of credits in one year increments is necessary to ensure that a real emission reduction occurs before a credit is granted.

For instance, the single action of scrapping a high-emitting vehicle will result in surplus reductions over several years. While the credit is calculated as total pounds, the total reduction does not occur in the first year. Therefore, in practice, the credit value is annualized to reflect the emission reductions that will occur in future years. Once the annualized emission reduction occurs, a credit is granted.

6. Comment: Sub-sections 91506(j) and (k) seem to place several procedural steps on the issue of interchangeability (findings for the interchangeability of RECLAIM credits, and trades which may have localized impacts). Overly complex or bureaucratic approval mechanisms will discourage the development of an emissions market. (USA Waste)

Agency Response: Throughout the rule development process, staff worked closely with all interested parties to find approaches that would provide the necessary clean air safeguards while minimizing complexity. The need to address RECLAIM credits arose because of the design of the RECLAIM program. RECLAIM established a declining emissions cap for RECLAIM facilities as well as facility specific emission “allocations.” These allocations do not always represent actual emissions so care must be taken if trading of these emissions occurs outside of RECLAIM. To address this issue, the regulation requires that the district determine that, in aggregate, such credits represent real reductions before they are used as interchangeable credits.

Regarding localized impacts, the use of credits in lieu of reducing emissions at particular facilities has the potential to redistribute emissions and affect public exposure on a localized basis. To address this issue, the regulation requires that districts assess and consider any potential localized public health impacts as part of the public process.

Both of these issues had to be addressed in order to meet the requirements of Health & Safety Code section 39607.5, which directs ARB to develop a credit trading methodology that results in the maintenance and improvement of air quality.

DEFINITIONS

7. Comment: The preface to section 91501, Definitions, states that districts must apply the definitions contained in the State regulation. These definitions may not in all cases apply to specific district programs, and in any event, the definitions seem to apply more to terms used in the State regulation than to district trading programs. (SCAQMD)

Agency Response: The commenter is correct. The State regulation has been modified to indicate that the definitions describe terms found in the State regulation.

8. Comment: The definition of “surplus” should be revised to exclude from credits any reductions that are assumed in the locally adopted plan to occur. (CCA/NRDC)

Agency Response: We agree. The definition of “surplus” has been modified to restrict a source from generating a credit in any year that the plan assumes those reductions would otherwise have occurred.

This change was made to preserve the integrity of the SIP's attainment demonstration, which relies in part on commitments to adopt pollution reducing rules in the future. Because the SIP assumes that certain source-specific emission reductions will occur in a particular year, either by regulation or normal equipment replacement, these emission reductions cannot be used to

generate credits. However, reductions that occur prior to the year the SIP assumed reductions would occur can be eligible for credits.

9. Comment: It is inappropriate to use local district plans (and assumptions contained in those plans) as the baseline for determining which emission reductions are surplus and eligible for credits. Instead, the baseline should be set at the level of adopted regulations. (RFG)

Agency Response: We disagree. As indicated earlier, “surplus” emission reductions are defined as those not required by current regulations, not relied upon in the locally approved air quality plan or the SIP, nor used by sources to meet any other regulatory requirement. The reason is that the locally approved air quality plan is the strategy for meeting federal and California Clean Air Act requirements, including making reasonable further progress and achieving clean air standards by a certain date. Allowing sources to generate credits from planned emission reductions would create a shortfall because the reductions would be “double counted,” once for the plan’s purpose of reducing emissions and improving air quality, and once to allow sources to use credits in lieu of controlling emissions. Section 39607.5 of the Health & Safety Code specifically requires that the State regulation must ensure that the trading methodology does not result in double counting.

10. Comment: The definition of “surplus” should be amended to clarify that a creditable reduction is one that is surplus to those reductions required by a control measure until its implementation date. (CCEEB/SCE)

Agency Response: We agree. The original language in the definition was ambiguous as to whether a credit could be generated up to the time a regulation is adopted or up to the effective date of implementation (when the required reductions begin to occur). Section 91501(i) of the State regulation has been modified to clarify that a credit can be claimed for emission reductions that occur up to a measure’s implementation date.

CREDIT EXCHANGE FUNCTION

11. Comment: The State regulation allows wide discretion to districts in the certification process. This will lead to an opportunity for delays and unnecessary differences between air districts. (USA Waste)

Agency Response: We do not believe the regulation allows “wide discretion” in the certification process. In fact, the regulation adds specificity to fundamental federal and State requirements for the certification of credits that have been in place since the 1970’s. These requirements are well understood by districts, and have been implemented relatively consistently across the State.

For example, section 91504(a) of Title 17 CCR specifies that “Interchangeable credits shall comply with the requirements set forth in Health & Safety Code sections 40709 through 40714.5, ... governing the creation, banking, and use of credits.” In addition, section 91506(a) of the regulation requires districts to “. . . adopt rules which, at a minimum, comply with the provisions of this subchapter and with sections 40920.6(c) and 40709-40714.5 of the Health & Safety Code prior to allowing the use of interchangeable credits.

Section 91507(b) of Title 17 CCR expands upon these requirements by further requiring districts to adopt calculation protocols for use in the certification process. This section specifies the necessary elements of all district protocols. While some district discretion remains because the statute specifies general criteria but allows districts to fill in the details, the more detailed certification requirements will promote the appropriate level of statewide consistency.

12. Comment: The proposed State regulation states that interchangeable credits must comply with Health & Safety Code provisions found in sections 40709-40714.5 governing Emissions Banking and Offset systems. These provisions may unnecessarily restrict how credits are used and banked under an intercredit trading program. (SCAQMD)

Agency Response: As indicated earlier, these provisions of the Health & Safety Code are referenced to preserve long-standing principles of emissions banking programs. The District did not identify any specific aspect of these provisions that would be inappropriate to apply to an “intercredit” (i.e., interchangeable credit) trading program. ARB was unable to find any elements of the referenced provisions that should not be applied to broad credit programs as well as to current district New Source Review offset programs. The fundamental principles of the banking provisions provide districts with sufficient flexibility to design an expanded trading program that meets their needs as well as the specific requirements of the statewide regulation.

13. Comment: The language used in defining credit denomination should clarify that credits cannot be used prior to a district’s certification and registration of the credit. (SCAQMD)

Agency Response: We agree. Section 91504(c) of Title 17 CCR has been modified to provide this clarification.

14. Comment: RFG supports infinite credit life for credits. Once a credit is generated, every incentive should be provided for the credit holder to retain it as long as possible prior to use. The State regulation indicates that ARB would establish credit life for credits generated from mobile sources and consumer products. On what basis would these determinations be made? (RFG)

Agency Response: Credit lifetime is that period of time that a district determines a banked credit is potentially available for use to meet district requirements. Section 91504(d)

specifies that credits can be used within the time period specified by a district or ARB, subject to applicable requirements, including section 91507(b)(6) which requires districts to use ARB calculation methods and timeframes for credit use for mobile sources and products subject to ARB regulatory authority. The reason for not assuming an infinite life for credits is that many emissions will naturally diminish or disappear over time. The reductions claimed would therefore not be “real” after the lifetime of the emissions. Granting an infinite lifetime for credits would artificially prolong the air quality impacts of these emissions. The basis that ARB would use to establish the lifetime would be the nature of the emissions now and in the future.

15. Comment: If a calculation protocol has been adopted and the creation of credits is not subject to significant uncertainty, the State regulation should allow credit certification in advance of credit generation. (RFG)

Agency Response: As indicated in the response to the first comment on the Credit Exchange Function, the regulation adds specificity to fundamental federal and state requirements affecting the generation and use of credits to offset emission increases. Within these requirements, the most fundamental element of credit certification is the notion that an emission reduction must be “surplus.” The definition contained in section 91501(i) of Title 17 CCR reflects long-standing State and federal policies in that, to qualify as a credit, the reduction must not be required or assumed throughout the time of the emission reduction duration by any applicable federal, state, or local requirement. If such a reduction has not occurred, by definition it is not surplus and cannot be certified for use as a credit prior to the reduction having occurred. To do otherwise could lead to unmitigated emission increases should the credits not be generated or fall short of anticipated reductions.

To ensure that such increases do not occur, section 91504(c) of Title 17 CCR specifies that credits cannot be used prior to certification. Section 91504(b) requires that, as part of the certification process, a district shall specify the earliest year in which a credit can be used. Section 91507 (Calculation Methodology) requires that emission reductions used to generate credits must be real. The combination of these requirements is essential for ensuring that an emission reduction *has actually occurred* before a credit is used.

ARB addressed the desire for early certification of credits that will be generated over a number of years. The regulation provides for such certification while ensuring that an annualized credit can only be used after an annualized emission reduction has occurred.

16. Comment: The State regulation should require Districts to specify the earliest and latest year in which an interchangeable credit can be used. Furthermore, temporal trading (i.e., credits that are banked for future use) should be limited. (U.S. EPA)

Agency Response: The regulation does as U.S. EPA requests. Section 91504(b) of the State regulation requires districts trading programs to specify the earliest year that a credit can be

used. Section 91504(d) provides for districts and the ARB to assign an expiration date to those sources after which the credit value expires. Section 91506(d) also limits temporal trading by allowing banked credits to be used only after a district determines that no overall increase in annual emissions will occur.

GENERATION AND USE OF CREDITS

17. Comment: The broadest possible scope for both credit generation and use should be applied to provisions of the State regulation; that is, all categories of sources should be allowed to generate and use credits to meet applicable requirements. The staff report indicates a more narrow scope (e.g., that credits could be substituted for emission reductions required of a “stationary source”). (RFG)

Agency Response: The State regulation responds to section 39607.5 of the Health & Safety Code which directs the ARB to develop trading methodologies for use *by districts* to calculate the emissions value of mobile, stationary, and area source credits when those credits are used interchangeably. Thus, this regulation applies to programs and rules that are within district authority to adopt and implement -- these are generally stationary and area source programs.

Similarly, ARB develops credit trading rules that apply to sources under its jurisdiction, such as consumer products or mobile sources. These credit programs are primarily designed to help sources comply with ARB regulations. Nonetheless, the statewide regulation does not prevent “owners” of mobile and consumer product credits (e.g., manufacturers) from making these credits available for use at the district level. Districts are free to include such provisions in their programs provided the programs are consistent with all ARB mobile source, consumer product, and credit regulations.

18. Comment: The State regulation should encourage the aggregation of credits for future use. Doing that will take emissions out of the air now when air quality is worse, for use in the future when air quality has improved. (RFG)

Agency Response: The State regulation allows credits to be aggregated for use as long as certain requirements are met. As discussed above, all credits must be certified prior to use. Once certified, annual credits can be aggregated if two key provisions of the State regulation are met: (1) the section 91506(d) requirement that credit use result in no greater emissions than assumed in the air quality plan; and (2) the section 91506(l) requirement that credit generation or use cannot result in a total facility-wide health risk from toxic air contaminants that exceeds a district established significance threshold applicable to emissions trading.

19. Comment: The State regulation should provide for the use of credits to comply with or defer Best Available Control Technology (BACT) and Lowest Achievable Emissions Rate

(LAER) requirements. In addition, the State regulation should allow for credit use to the same extent allowed by any federal regulation. (RFG)

Agency Response: Parts C and D of the federal Clean Air Act (Act) require that facilities subject to new source permit requirements install technology-based controls that represent BACT and LAER, as defined by Sections 169(3) and 171(3), respectively. Section 91506(f) of the State regulation is consistent with the Act by prohibiting the use of credits to meet these requirements.

For example, section 173(a) of the Act provides for new source permits if certain requirements are met. Among these requirements is section 173(a)(2) which specifies that “. . . the proposed source is required to comply with the lowest achievable emission rate.” The ARB has consistently interpreted the Health and Safety Code, including the California Clean Air Act, to require new sources to apply LAER or BACT at the time of construction. The ARB is required to comply with the federal Act and interprets State law to harmonize with it.

The statutory provisions addressing the State equivalent of both BACT and LAER require the permitting authority to set, and the source owner to comply with, the applicable technology-based emission limitation. Therefore, we have concluded that emission credits cannot be used to comply with BACT or LAER.

20. Comment: Firms subject to MACT requirements cannot use an emissions trading strategy to comply. ARB should either revise or delete those portions of the proposed regulation that infer this may be possible. (U.S. EPA)

Agency Response: ARB acknowledges that current U.S. EPA regulations and policy guidance prohibit the use of credit trading between sources to meet federal MACT standards. For that reason, section 91506(g) of the State regulation allows districts to authorize the interchangeable use of credits for meeting any federal, state, or local requirements applicable to toxic air contaminants only if allowed by state and federal regulations. This provision recognizes that while such trades are not now allowed, it is possible that future regulations specific to state and federal air toxics programs might address trading in some way. We believe that the complexities of air toxics issues are best addressed under the regulatory framework specific to air toxics; thus, the statewide regulation defers to those requirements.

21. Comment: The commenter supported revised wording to the original rule proposal as reflected in the State regulation that was presented at the May 22, 1997 public hearing. The commenter believed that ARB’s initial policy position of a “no net toxic emissions increase” was unnecessarily restrictive. (SCAQMD)

Agency Response: The proposed revised language at the public hearing was accepted and approved by the Board at the May 22, 1997 hearing.

22. Comment: Language in section 91506(k) regarding localized impacts associated with trading is far too restrictive. Imposing a zero threshold limit on air toxic emissions increases would prohibit most VOC and NO_x trading, since increases in emissions of these pollutants frequently include increases in trace amounts of air toxics. Independent requirements, e.g., district and State regulations and programs governing AB 2588 toxic hot spots, AB 1807 air toxics controls measures, and Prop. 65, already adequately address any potential air toxics impacts from the trading or use of emission credits. Additional requirements are therefore unnecessary for purposes of the State regulation. (RFG, Southern California Gas, CCEEB/SCE)

(See response to comment # 24)

23. Comment: It is not enough to require districts to assess and consider localized impacts of trading; rather, the ARB must prohibit increased exposure and risk. The commenters support a provision that was contained in the proposed State regulation that would specifically prohibit the use of credits if their use would result in increased emissions of toxic air contaminants. The commenters were also willing to support an alternative requirement that there be no net increase in toxic emissions from a market trade. (CCA/NRDC)

(See response to comment # 24)

24. Comment: Relying on each district's significance threshold, as specified in the State regulation, is highly problematic. For example, in the South Coast, the significance threshold is 100 in a million, which is not sufficiently protective of public health. It is appropriate for the ARB to require that, where a facility has the option of whether to participate in a market trading program, a sufficient health-based standard designed to protect the community should be applied.

As a compromise, the commenter proposed the following:

1. If a facility's overall facility risk level is under 100 in a million additional cancer cases and has a hazard index of less than 1, it may only proceed with a trade if the incremental risk posed by credit use from all trades by that facility in a year does not exceed a 1 in a million risk level.

2. If a facility's overall facility risk level, taking into account the proposed trade, exceeds 100 in a million additional cancer cases or a hazard index of 1, it may not participate in the trading program. (CCA/NRDC)

Agency Response: At issue in comments 22, 23, and 24 is the extent to which VOC emissions trading creates a potential for increased risk from exposure to hazardous pollutants, or toxic air contaminants, since most hazardous air pollutants are VOCs. While credits would be used to meet VOC emission reduction requirements, not air toxics requirements, foregoing VOC

control would mean that any associated air toxics emissions reductions would not occur. Alternatively, credits that might be used to meet existing requirements could lead to actual increases in emissions from hazardous air pollutants. In either case, reductions in air toxics as a result of VOC controls are ancillary benefits that we agree should be considered from a public health standpoint. This issue was addressed in the context of existing federal, State and local air toxics requirements.

The ARB and local districts have air toxics programs that address air toxic emissions based on a health risk assessment approach. The State programs are the result of past legislation, including:

- AB 1807, which the State adopted in 1983, requires a two step program: first, toxic air contaminants are identified and the health risk associated with them is assessed; and then, air toxic control measures are adopted to reduce air toxic emissions from specific sources of the identified substances.
- AB 2588, the State Air Toxics “Hot Spots” Information and Assessment Act of 1987, establishes a statewide program to inventory and assess the risks from facilities that emit air toxics emissions in California and to notify the public about significant health risks associated with these emissions. If a health risk assessment indicates that the facility poses a significant health risk, the facility must notify the exposed public. Under the AB 2588 program, facilities must provide public notice if the risk is greater than the level of significance specified by the district. (In October 1993, the Toxics Committee of the California Air Pollution Control Offices Association prepared revised Risk Assessment Guidelines for the “Hot Spots” program which recommended that facilities provide public notice when the maximum individual cancer risk is greater than 10 in one million, and the total facility hazard index exceeds 1 for toxic air contaminants.)
- SB 1731 (Health & Safety Code, section 44390, et seq.) requires local air districts to establish a program to reduce risks from existing facilities in the AB 2588 program which are deemed by the district to pose a significant health risk.

Most air districts have adopted rules or guidelines for assessing and reducing the health risk from new sources of air toxics. As with the State program, local rules also take a risk-based approach. The governing board of a district establishes a threshold “significance level” such as a cancer risk of ten in one million. The threshold approach allows a certain level of air toxics emissions to occur as long as the health risk threshold is not exceeded.

However, despite the existence of these air toxics programs to reduce overall risk from and emissions of toxic air contaminants, we agree that the potential public exposure to air toxics emissions resulting from trades needs to be specifically considered in district trading programs.

To address this issue, the original language in the proposed State regulation would have prohibited VOC trading if the result would lead to an increase in air toxics emissions, irrespective of the amount or level of risk.

Based on public comment, we further evaluated this proposal and concluded that a more sophisticated approach was needed. The original language was inconsistent with the existing risk-based regulatory framework in California because it was a solely emission-based limitation.

The modified language takes a risk-based approach that builds on the existing regulatory framework for air toxics. The modified regulation prohibits the generation or use of credits if the total health risk from a facility would exceed a district established significance threshold. This ensures that community-established health risk thresholds are not exceeded while not precluding VOC trading when relatively small amounts of air toxic emissions may result.

The alternative language proposed by NRDC has not been incorporated because it would have taken away community discretion to establish a significance threshold. Instead, the modified regulation provides for public disclosure of any increase in toxic air contaminant emissions when a total facility risk exceeds a cancer risk of one in one million. This was included to ensure that local communities are informed about health risk levels and able to take part in the local decision making processes that establish significance thresholds.

Finally, the modified regulation provides necessary specificity and statewide uniformity regarding the development of health risk assessments. The Office of Environmental Health Hazard Assessment has the responsibility under the state toxic air contaminant program to develop cancer risk potency values and reference exposure levels. The regulation requires that districts use these values in implementing these health risk assessment requirements.

24a. Comment: Section 91506(1), (which requires districts to provide for public notification of any increase in emissions of toxic air contaminants resulting in a facility-wide cancer risk greater than 10 in one million due to the use of credits), should require public disclosure for a smaller facility-wide risk, i.e., one excess cancer per million people exposed over a 70 year lifetime. (CCA)

Agency Response: The risk threshold suggested by the commenter is a very small number and could result in many notifications, which may unnecessarily alarm the public or dilute the significance of the notice (as with the ubiquitous Proposition 65 notices). As the commenter from the Coalition for Clean Air noted in public testimony, most air districts currently require public notice when the risk of cancer from a facility exceeds 10 per million, pursuant to section 44362 of the Health & Safety Code. It is left to the discretion of the district, under that provision, to determine whether the risk assessment "indicates there is a significant health risk associated with emissions from the facility." The ARB does not feel it is warranted to substitute its judgment for the districts' where the Legislature explicitly gave that responsibility to the districts, as long as

their "significance threshold" for public notification is reasonable. In the opinion of the ARB, based upon generally accepted risk management practice, a disclosure requirement at 10 in one million is reasonable.

25. Comment: Implementation of an interchangeable credit program could result in a discriminatory impact by causing certain individuals or groups to shoulder a disproportionate share of the negative environmental impacts of increasing emissions in a given locality. This potential discriminatory impact raises legal issues for EPA regarding the interface between the Clean Air Act and the Civil Rights Act which have yet to be addressed by EPA. (U.S. EPA)

Agency Response: We agree that the interface of federal policies regarding emissions trading and "environmental justice" need to be addressed by the U.S. EPA; the ARB will participate actively in that process. However, ARB was obligated to move ahead with the statewide regulation despite the lack of federal guidance. The statewide regulation recognizes that potential localized impacts need to be assessed and addressed. As discussed above, the regulation requires that both processes be carried out by districts as part of their trading program.

26. Comment: The regulation should clarify that it is permissible to use interchangeable credits for New Source Review (NSR) offset purposes and in lieu of BARCT requirements. (CCEEB, SCE)

Agency Response: The suggested clarifications are unnecessary. The regulation in its entirety makes it very clear that the interchangeable credits can be used for both NSR offset and BARCT purposes. There is no language in the regulation that states or implies that such uses are not permissible.

The use of offsets and the generation of credits for this purpose has been in effect since the mid-1970s. The purpose of establishing the State regulation is to allow districts to authorize the interchangeable use of ERCs for purposes other than (i.e., in addition to) NSR offsets. Within this framework, a number of compliance-based trading alternatives are possible. As indicated earlier, State law requires districts to allow the use of credits in lieu of BARCT. Districts could authorize the use of credits to comply with other prohibitory rules as well. Additionally, districts could authorize the interchangeable use of credits for NSR offsets, as well as for sources subject to attainment-based trading programs, e.g., RECLAIM. Emissions trading could also be used to mitigate excess emissions caused by equipment breakdowns and variances.

The State regulation also contains language that addresses how credits created for interchangeable use can be used for NSR offset purposes and vice versa. Section 91506(a) specifically states that districts must adopt rules that comply with the State regulation prior to the use of any credits for the purpose of meeting district requirements other than NSR offsets. Additionally, section 91506(i) specifies that ERCs that had previously been banked for NSR offset purposes must be accounted for in the SIP if the use of these credits is expanded to meet other

district requirements. This allows for credit flexibility while meeting the statutory criteria for interchangeable credits.

27. Comment: Requiring the assessment of equivalency to take into account the exceedance season for each affected pollutant, implies that winter and summer seasonal credits must be developed. (SCAQMD) The State regulation should not require seasonal tracking of credit use. This is too difficult to track and can result in an even shorter reconciliation period than one year. Additionally, while a strategy is being put into place, it may not be possible to demonstrate equivalent emission reductions. However, any short-term increase over the baseline may be more than offset by future reductions that occur once the strategy is in place. Therefore, a three year reconciliation period is a more appropriate period for demonstrating equivalency. (RFG)

Agency Response: The principle of equivalency was established in the State regulation (Section 91506(d)) to ensure that credit trading would not interfere with achieving the emission reductions required by the SIP. The issue is how frequently to require that this demonstration be made. We believe that an annual assessment of the trading program is necessary in light of the fact that compliance-based trading has not been fully tested and may require corrections and technical adjustments in the early years of program implementation.

The assessment of “equivalency” with the SIP must take into account the seasonal nature of each affected pollutant. This will ensure that trading will not lead to emission increases during those seasons when the public’s exposure to unhealthful pollution levels is at its highest. Accounting for seasonality would prevent credits created in the non-ozone season from being used in the ozone season when it would represent a net emissions increase over that period of the year when air pollution is at its worst.

The regulation provides districts flexibility in addressing this issue. One approach would be to focus on identifying credits that are generated solely in the “low” ozone season. If no credits fall in that category, the assessment is essentially done. However, if the district intends to grant credits for such reductions, some accounting mechanism will be necessary to avoid a “spike” in ozone season emissions due to use of such credits.

An annual rather than triennial reconciliation period is necessary in order to detect any problems expeditiously. While a “real time” reconciliation would be ideal from a purely air quality standpoint, we believe such a requirement would be administratively burdensome. However, delaying reconciliation to three years could result in real and sustained emission increases that would be difficult to remedy over time. The primary purpose of allowing companies to engage in trading is to reduce the cost of compliance, not delay attainment. In order to ensure that the State regulation results in the maintenance and improvement of attainment of air quality, the equivalency provisions must be effective and timely. An annual

assessment balances the need for close tracking of credit use with practical resource considerations.

28. Comment: It is unnecessary for the District to conduct a study prior to allowing RECLAIM credits to be traded to non-RECLAIM facilities, since the "cross-over point" of allocations to actual emissions will soon be reached. (CCEEB, SCE) The interchangeable use of credits such as RECLAIM Trading Credits (RTCs) requires additional analysis in order to preserve the overall integrity of RECLAIM. The language in section 91506(j) should be revised to incorporate deadlines by which the completed analysis would be submitted to the ARB as well as a deadline by which the ARB would provide findings on the analysis.(SCAQMD)

Agency Response: There was considerable discussion in the rule development process as to how to incorporate credits from other, more narrowly crafted credit trading programs such as RECLAIM into a broader interchangeable credit trading scheme. The fundamental issue was the need to ensure that all credits met consistent criteria relative to their creation: real, surplus, quantifiable, and enforceable. RECLAIM credits posed a special challenge because RECLAIM is an attainment-based credit trading program that operates with a declining "cap" of emissions for the limited number of facilities in the program. RECLAIM credits are generated on the basis of the difference between actual emissions and the "cap." To ensure RECLAIM's viability and that participating facilities had the ability to expand beyond economically-depressed emission levels, the cap during the early years was set artificially high, resulting in a large number of "credits" in the early years of the program that were not based on any emission reductions. The issue for trading RECLAIM credits to facilities outside RECLAIM is to ensure that the credits traded represent real emission reductions and are not credits that were the result of the artificially high cap.

For this reason, section 91506(j) of the State regulation requires that before RECLAIM credits can be used interchangeably, a district must complete a study to determine that RECLAIM credits represent real reductions and that ARB concurs in these findings. If the study finds that the emissions cap has decreased to the point where RECLAIM credits represent actual emission reductions, then RECLAIM credits can be used by non-RECLAIM sources. To ensure that ARB has sufficient time to review and evaluate the results of the study, the section 91506(j) was modified to require the SCAQMD to submit its request and an analysis to the ARB at least 120 days prior to the intended use of RECLAIM credits by non-RECLAIM sources. Section 91506(j) was further modified to state that the ARB must concur in writing within 90 days of receipt of the District's submittal to provide the District with sufficient time to prepare for the use of the credits.

29. Comment: Permanent credits from the shutdown of facilities should only be used for purposes of NSR offsets. (CCA/NRDC) Interchangeable credit trading programs should not result in net emission increases, nor interfere with attainment or otherwise violate applicable Clean

Air Act requirements. Allowing the interchangeable use of old emission offset credits may result in emission increases that could interfere with these requirements. (U.S. EPA)

Agency Response: We acknowledge that the use of permanent credits previously banked for use as emission offsets to meet NSR requirements could create problems if they are allowed to be used for alternative compliance purposes. However, we believe that the State regulation has been carefully crafted to ensure that emission increases will not occur if permanent credits are used interchangeably.

The regulation allows districts to keep permanent credits separate and distinct from interchangeable credits. While the staff report encourages using permanent credits only for NSR offset purposes to ensure a continuing supply of credits for new businesses, the ARB also realizes that such decisions are best made by districts and thus left open the use of permanent credits for purposes other than NSR consistent with the safeguards in the regulation. First, if a district decides to allow the use of permanent credits for alternative compliance purposes, section 91506(i) of the State regulation requires that these permanent credits must be accounted for in the SIP as actual emissions prior to being used. If permanent credits have been counted as emissions in the SIP, they can be used for alternative compliance purposes without creating an unanticipated emissions increase. In addition, section 91506(d) of the State regulation provides another safeguard against potential emission increases by requiring that districts show that emissions in the aggregate will be equivalent on an annual basis as would have occurred in lieu of trading.

30. Comment: U.S. EPA requires that all trading programs contain at least a 10% environmental offset in order for trading programs to be approvable. Therefore, the State regulation should require districts to set an environmental offset to ensure that public health is not negatively impacted by these programs. This is especially important in cases where credits are generated through activities that would have been performed anyway. The offset factor should be based on a market analysis to determine the level the region requires to maintain its emissions reduction goal while still creating market trading incentives for business. (CCA/NRDC) Pursuant to U.S. EPA's Economic Incentives Program, the State regulation should require that district trading programs include an "environmental discount" off the emissions value of credits, if trades are conducted interchangeably between sources that are subject and exempt from federal control requirements. (U.S. EPA)

Agency Response: There is strong support for requiring an environmental offset/discount with credit trading in some contexts. However, because this regulation is designed to address discretionary trading programs that in and of themselves are not intended to provide the emission reductions required by the SIP, the regulation gives districts discretion on this issue. As a policy matter, districts may choose to require an environmental discount that directly contributes to clean air progress. Districts may also choose to achieve the necessary emission reductions through other requirements and use trading purely as a compliance alternative.

We disagree with U.S. EPA's comment that the EIP requires state trading programs to provide for environmental discounts. The EIP does not impose requirements on voluntary credit trading programs.

31. Comment: The State regulation should clearly state that inter-pollutant trading is not allowed. (CCA/NRDC) The definition of "interchangeable credit" should be revised to prohibit inter-pollutant trading. (U.S. EPA)

Agency Response: Under inter-pollutant trading, credits from reducing emissions of one pollutant are allowed to be used in lieu of required reductions in emissions of another pollutant. Such trades would only be allowed where both pollutants are "precursors" to the same air pollutant, e.g., NOx and VOC emissions could be traded as they are both ozone precursors.

The State regulation is silent on inter-pollutant trading. ARB does not oppose inter-pollutant trading per se, but has strong concerns about the ability to ascertain the net air quality effect of such trades. The reduction in emissions of one precursor may not have the same net air quality impact as the reductions in another precursor. In other words, reducing a pound of NOx may yield a different reduction in ozone than would result from reducing a pound of VOC. Adding to the complexity is the fact that NOx and VOC are also precursors to particulate matter. Therefore, the potential differential air quality impact for particulate matter must also be considered in all inter-pollutant trades involving NOx and VOC. The current state of the science does not support the ability to precisely characterize the net air quality impact of each inter-pollutant trade. Efforts are underway to determine whether it is possible to define a conservative approach such that inter-pollutant trades can be allowed without risking a net detrimental air quality impact. Therefore, the State regulation does not prohibit inter-pollutant trading in order to allow such trades when technically acceptable tools and approaches are developed.

32. Comment: The State regulation should include requirements that specify how to make multi-district emissions reduction banking work. (U.S. EPA) The regulation should be amended to specifically allow the use of banked credits in downwind district in conformance with offset requirements in the Health & Safety Code. (CCEEB)

Agency Response: Section 40709.6 of the Health & Safety Code currently provides for emission increases from a source in one district to be offset by decreases from a source in an upwind district under specified conditions. Should districts wish to pursue inter-district trading, they can legally do so. Staff is available to work with interested districts, if requested, to assist in making such trading viable.

CALCULATION METHODOLOGY

33. Comment: Protocols used to generate emission credits must be approved by U.S. EPA. (U.S. EPA)

Agency Response: We are aware that U.S. EPA's policy is to require approval of protocols before credits can be generated. Therefore, section 91504, Banking, and section 91506(e), Applicability, of the State regulation specify that credits must comply with applicable federal requirements governing the creation, banking, and use of credits. Additionally, section 91506(c), Generation and Use, specifies that districts must adopt enforceable technical protocols that define how credits will be calculated. As indicated earlier, to the extent that district trading programs modify or enhance SIP-approved district rules, ARB will work with districts in the development of their credit trading programs to ensure all applicable federal requirements have been addressed.

34. Comment: The protocol criteria for establishing an emissions baseline for calculating credits should account for sources that do not have historic actual emissions available, are exempt from control, or are not included in the air quality plan. (SCAQMD, Southern California Gas)

Agency Response: Section 91507(b)(4) of the State regulation requires that district protocols include procedures to incorporate updates and changes in source category baselines. This would allow districts to establish an emissions baseline for specific sources within a source category in the instances identified in the comment.

35. Comment: Section 91507 of the State regulation should be redrafted to use the terminology "designation" of interchangeable credits. This would make the credit exchange function clearly distinct from credit creation and credit use. (CCEEB, SCE)

Agency Response: We do not agree that this would add clarity. In fact, we do not see the need to identify a distinct "credit exchange" function. Once certified, all interchangeable credits are equivalent, so there is no need for an exchange function. The commenter may be concerned about how existing credits can become "interchangeable credits." That process happens via the certification process established by the regulation.

36. Comment: The State regulation should allow credit generators to develop protocols as strategies are implemented rather than first require the adoption of protocols prior to credit generation. (RFG)

Agency Response: Protocol development should not be deferred until the emission reduction strategy is being implemented. We believe a fundamental criteria for generating valid credits is the development and adoption of calculation methods, or protocols, prior to credit

generation. Without clearly defining how to quantify the emission reductions, there is too much potential for granting credits for emission reductions that do not meet the test of real and surplus.

For these reasons, sections 91506(c) and 91507(b) of the State regulation call for districts to adopt enforceable calculation protocols and procedures. This is consistent with prevailing federal and State requirements governing the generation and use of credits.

37. Comment: Interchangeable credit trading programs that are submitted to meet SIP requirements must use federally approved testing and calculation procedures. (U.S. EPA)

Agency Response: Requiring that U.S. EPA approve all calculation protocols is impractical, unnecessary, and not required by the Clean Air Act. The State has the technical expertise to develop the necessary protocols. In addition, U.S. EPA has backlogs of hundreds of SIP rules that have not yet been approved. Applying a federal review process for credit calculation protocols would indefinitely delay implementation of credit programs.

38. Comment: The ARB should require districts to determine whether an environmental offset is necessary where there is “technical uncertainty” in calculation methodologies for credits. (CCA/NRDC)

Agency Response: Technical uncertainty should be directly addressed in the calculation procedure rather than through an environmental offset. Technical uncertainty stems from the recognition that not all the information may be available for accurately calculating the emission reductions for which credits are being granted. Technical uncertainty is addressed within the calculation procedures that are established for guiding the process of quantifying the emission reductions. In short, the calculation procedures are designed to provide conservative estimates of emission reductions. The principles and criteria embodied in section 91507, Calculation Methodology, of the State regulation contain the necessary elements to ensure the development of accurate, enforceable, and replicable procedures to calculate the value of credits. Additionally, section 91507(b)(1) specifically calls for calculation formulas that account for “technical uncertainty.”

The environmental offsets would instead require the credit generator give up a portion of the credit to contribute to clean air progress. As discussed previously, no requirements for environmental offsets were included because the objective of the State regulation is to provide an alternative for compliance. However, districts are free to impose an environmental offset based on their own program needs.

REPORTING REQUIREMENTS

39. Comment: Any evaluations of interchangeable credit trading programs should be submitted to ARB and U.S. EPA, and should include a demonstration that any such program does not interfere with reasonable further progress or attainment of national air quality standards. Finally, any audit should be consistent with requirements in the Economic Incentive Program rule governing projected results and audit/reconciliation procedures. (U.S. EPA)

Agency Response: The statewide regulation requires that districts report annually on their trading program. Section 91508 requires that the report describe how the district is complying with the equivalency requirement of section 91506(d) which is designed to ensure that progress or attainment of national air quality standards is not jeopardized. The reports will be available to U.S. EPA. If a trading program is “non-discretionary” (see response to comment # 30), districts would have to comply with the federal EIP rule.

OTHER ISSUES

40. Comment: The State regulation should provide districts with the flexibility to implement interim trading policies and procedures prior to adoption of a trading rule. (CCEEB, SCE, RFG)

Agency Response: The commenters raised this issue in their oral comments to the Board at the public hearing to consider adoption of the State regulation. In its discussion, the Board recognized that there may be instances when there is an immediate need for a business to use credit prior to the trading program by the District. However, the Board also found that there is no need to address this issue in the State regulation since most districts have existing alternative procedures that can accommodate the temporary use of credits.

41. Comment: ARB should play an active role in working with local districts and U.S. EPA to assure expeditious SIP approval of all credit rules. (Southern California Gas)

Agency Response: ARB intends to work closely with districts and the U.S. EPA to ensure that district credit and trading programs address all applicable State and federal requirements, and that federal approval of district programs occurs as expeditiously as possible.

42. Comment: ARB should allow the full integration of the Alternative Control Plan (an alternative compliance tool for consumer products) into the State trading regulation. (SC Johnson)

Agency Response: As specified in section 39607.5 of the Health and Safety Code, the State regulation applies to *district* emissions trading programs, not to State credit trading programs (see response to comment # 17). While ARB is developing credit programs for consumer products on a separate track, it is incorporating the principles of credit trading used in the State regulation wherever feasible.

43. Comment: Any district trading program that is submitted as a SIP revision will need to comply with Title V permitting requirements. (U.S. EPA)

Agency Response: We agree. As part of its responsibilities under section 39602 of the Health & Safety Code, we will work with districts during the development of their respective trading programs to address the applicable federal requirements.

COMMENTS RECEIVED DURING THE 15-DAY COMMENT PERIOD

In response to the Notice of Public Availability of Modified Text, the Board received one letter with written comments--from the Santa Barbara Air Pollution Control District. A summary of that comment and the agency response are set forth below.

44. Comment: Section 91503, Credit Denomination, as modified, requires that all interchangeable ERCs be certified and registered in “one year increments.” The regulation should be modified to allow the use of trading units in tons per quarter if that is the trading unit that is used consistently among all district programs.

Agency Response: The requirement for certification of credits in annual increments provides a unit of exchange needed to address temporal trading of credits. This unit of credit can be mathematically characterized in different ways. There are two aspects to the unit — time and quantity or “mass”. In terms of time, this metric can be expressed as four quarters as well as one year. The mass metric can be expressed as pounds or tons. Since quarters are sub-units of years and pounds are sub-units of tons, we see no inconsistency with the regulation.

V. ADDENDUM TO THE FINAL STATEMENT OF REASONS

How ARB has considered the factors specified in AB 1777

The regulation reflects consideration of each of the factors identified in AB 1777. These factors were discussed in the workshop process and public comments were taken into account. The most complex issue involved how long banked credits should be valid. One aspect of this issue is that many emissions will naturally diminish or disappear over time and there is concern about granting long term credits for early reductions of these kinds of emissions. One example is motor vehicle scrappage. ARB's mobile source credit guidelines recommend a limited credit life since scrapped vehicles have a limited remaining life, which is reflected in the motor vehicle emission inventory in district air quality plans. In 1997, the ARB will consider regulations specific to motor vehicle scrappage programs which are expected to incorporate this factor in the methodology for calculating credits for scrapped vehicles. The appropriate lifetime for other kinds of mobile source credits such as engine retrofits is likely to differ, so it is necessary to address this issue based on the nature of the emission reduction to be achieved. The same applies for stationary and area sources. The appropriate lifetime will vary depending upon the type of action taken to reduce emissions.

There is general agreement that there need to be opportunities for banking of credits.

Banking of credits is viewed as important for incentivizing early emission reductions and investment in new technologies. The regulation provides for banking of interchangeable credits consistent with the banking provisions of state law. At the same time, districts are provided the flexibility to tailor a banking program to meet their needs. The regulation does not prescribe or limit how districts would provide for banking of interchangeable credits beyond the current requirements in state and federal law. The banking provisions also address the issue of providing a mechanism so that credits remain interchangeable and negotiable until used.

Section 39607.5(C)(5) of the Health & Safety Code directs that the State Trading Regulation ensure that any credits are permanent, enforceable, quantifiable, and surplus. Emission quantification protocols are a critical component in complying with this mandate. For emissions trading to work, the buyer and seller must be certain that emission reductions can be quantified to a reasonable degree of certainty, and that the methods used to calculate credits are appropriate and recognized in advance by the State and the district in which the transaction occurs. Without clearly established quantification methods, neither buyers, sellers, nor regulatory agencies will be able to determine, prior to use, the value and enforceability of the credits. In other words, the credit buyer must know that the generator has used, under penalty of law, calculation and test methods that regulatory agencies recognize as the basis for quantifying emissions.

For this reason, the State Trading Regulation requires districts to provide for credit calculation protocols and procedures that contain certain specific elements. These elements address the district's responsibility to include methods for calculating and certifying the emissions value and duration of the credits; procedures to update and modify regulations, plans and inventories to accommodate credit generation and use; provisions for use of ARB methods and data for those sources subject to ARB regulatory authority; and monitoring, recordkeeping and reporting requirements that serve to verify compliance during credit generation.

If incorporated in District trading programs, such protocols will allow a district to quantify, verify, and estimate the value of the credit in a manner consistent with the mandate in the statute that there be no double counting.

Another factor ARB is to consider is how to ensure that credit trading across districts or air basin boundaries maintains and improves air quality in both areas. This issue was discussed in the workshop process in the context of HSC Section 40709.6(a), which allows such trades under specified circumstances. ARB staff believes that state law adequately addresses this issue and is not proposing any additional regulatory requirements.

How the regulation ensures that use of credits will not increase emissions when used in lieu of meeting district control requirements

Districts would be required to ensure on an annual basis that the use of interchangeable credits does not result in a net emissions increase. These provisions were included to comply with

H&SC section 39607.5 that requires ARB's methodology to result in maintenance and improvement in air quality.

To prevent the use of credits from resulting in emission increases, the regulation contains three fundamental safeguards: (1) credits must be generated in accordance with adopted and enforceable technical protocols to ensure they are real and well quantified; (2) credits that are generated in a given year must be surplus to existing requirements and measures in air quality plans for that year (i.e., there can be no double counting of emission reductions already accounted for); and (3) at a minimum, the district's downward trend in emissions must be maintained at the same level with the use of credits as that required by the approved plan so there is no backsliding on air quality progress (program equivalency).

The program equivalency requirement means that district rules must ensure that annual emissions of each pollutant, based on the district's portion of the adopted air quality plan, are no greater than would otherwise have occurred. A district must track the use of credits and report annually on its findings and any corrective actions taken. Such report would need to document specific trading activities, by pollutant, and by source and rule category. The report would also need to summarize any changes made affecting calculation methods used to quantify the emissions value of credits. Most importantly, the report would need to identify any actions taken to comply with the district trading program, including a finding that use of credits complied with 91506(d) "equivalency" requirements in the State Trading Regulation. The reporting requirements in the State regulation were made specific in order to ensure that the mandate of section 39607.5(b)(1) of the Health & Safety Code (that the methodology results in the maintenance and improvement of air quality), will at all times be met.

The equivalency determination must also take into account the seasonal nature of each air pollutant affected (exceedance season), so that the use of credits will not exacerbate public exposure to unhealthful pollution levels. The proposed rule ensures that, while equivalency is determined on an annual basis, there will be no increases during the seasons when a pollutant's concentrations are highest (e.g., ozone in summer and fall).

On a source-specific basis, existing permitting programs should ensure that an *increase* in emissions sufficient to trigger NSR is mitigated with appropriate requirements, including the application of BACT and offsets. In addition, district programs must ensure that trading does not result in forgone emission decreases from hazardous air pollutants. To address such concerns the regulation would require districts to assess and consider the potential localized impacts of using credits. In no case can emissions of toxic air contaminants be allowed to increase as a result of credit use.

How the regulation addresses air toxic emissions within the context of Health & Safety Code section 39607.5 requirements

The Health & Safety Code provides that the emission reduction credit calculation methodology must result in “the maintenance and improvement of air quality consistent with this division [26 of the Health & Safety Code].” Yet, the ARB regulation allows certain increases in toxic air contaminants which may arise from the use of credits. For example, 17 CCR section 91506(l) provides that “in no case shall the generation and use of credits result in a total facility-wide health risk from toxic air contaminants...that exceeds a district established significance threshold applicable to emissions trading.” This apparent anomaly is dispelled by the fact that Division 26 of the Health & Safety Code does not prohibit increases in toxic air contaminants, nor are they regulated in the same manner as the so-called “criteria pollutants,” for which air quality plans demonstrate annual progress to achieve ambient air quality standards are required.

Instead, toxic air contaminants, once identified by the ARB and the federal EPA, are controlled to specific levels which are intended to protect public health with an adequate margin of safety. (See Health & Safety Code sections 39650 et seq.). As long as a trade does not increase facility-wide emissions in excess of these levels, which are either promulgated by the EPA as “maximum achievable control technology,” or MACT, standards pursuant to section 112 of the Clean Air Act, or as “air toxics control measures,” or ATCMs, by the ARB pursuant to Health & Safety Code section 39666, the provisions of Division 26 are not violated.

Air districts are required to implement and enforce MACT/ATCMs, and will not establish thresholds that would allow violations of these standards. Moreover, pursuant to section 44362(b) of the Health & Safety Code, the districts are required to establish public disclosure thresholds for toxic emissions from polluting facilities. Most of the districts require notification if the facility-wide risk is in excess of 10 cancers per million. State law gives this discretion to the air districts.

Thus, the law is designed to achieve reductions in risk from toxic air contaminants over time in the aggregate through regulation of each specific toxic pollutant. However, trades of volatile organic compounds (VOCs) may legally allow some increase in emissions from specific compounds as long as regulatory limits are not exceeded. The ARB regulation ensures compliance with statutory toxic air contaminant provisions in 17 CCR sections 91506(g), and subsections (k) and (l) of section 91506.

Where to Find Air Toxic Contaminant Unit Cancer Potency Values and Reference Exposure Levels

The Office of Environmental Health Hazard and Assessment (OEHHA) is required by law to adopt cancer potency values and reference exposure levels by the Administrative Procedures Act pursuant to section 44360(b)(2) of the Health & Safety Code. These values and levels are continuously updated and can be found at OEHHA’s web page at <http://www.calepa.cahnet.gov/oehha/scidocs.htm>.