



State of California



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Environmental  
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**Cal/EPA**

**AIR RESOURCES BOARD**

California  
Environmental  
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Agency

**Notice of Public Availability of Modified Text**

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



Public Hearing Date: May 22, 1997

Public Availability Date: June 13, 1997

Deadline for Public Comment: June 30, 1997

**Air Resources Board**

P.O. Box 2815  
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At a public hearing held May 22, 1997, the Air Resources Board (the "Board") considered the adoption of sections 91500 through 91508 of Subchapter 5.5, Chapter 1, Division 3, Title 17, California Code of Regulations ("CCR") in response to recently-enacted legislation (AB1777; Health and Safety Code section 39607.5). The purpose of the regulation is to establish principles and criteria for air pollution control and air quality management districts (Districts) to use when developing programs to allow the use of interchangeable credits as a compliance alternative for meeting specified air pollution control requirements in District rules and regulations. The proposed regulatory action is described in detail in the Initial Statement of Reasons for Rulemaking, released April 4, 1997.

At the public hearing, the Board approved sections 91500 through 91508 of Title 17, CCR, with modifications to the originally proposed regulatory language as follows:

Section 91501 was modified to clarify that definitions contained in the regulation apply to the regulation;

The term, "Hazard Index," and its definition were added as Section 91501(e);

The term, "Reference Exposure Level," and its definition were added as Section 91501(g);

The definition of the term, "Surplus," in Section 91501(i) was modified to clarify that, to be certified as a credit, emission reductions must be surplus to those assumed to occur by local, state, or federal requirements for the duration of the emissions reducing activity, and that a credit can be generated up to the time that the air quality plan control strategy schedule calls for the implementation of an applicable control measure;

The term, "Total Hazard Index," and its definition were added as Section 91501(j);

Section 91503, Credit Denomination, was modified to clarify that the credit denomination of pounds of pollutant must be certified and registered in annual increments;

Section 91506(j), relating to the interchangeable use of RECLAIM credits by non-RECLAIM facilities in the South Coast Air Quality Management District, was modified to clarify that RECLAIM credits can be traded interchangeably when the District Governing Board determines that such credits represent real reductions, based on results of a District study. In addition, the District must submit the study to ARB at least 120 days prior to the intended interchangeable use of RECLAIM credits. The proposed language change further requires that the ARB concur in the District's findings prior to the use of RECLAIM credits as interchangeable credits and that ARB provide a written response within 90 days of receipt of the District's findings;

The second sentence of Section 91506(k) was deleted;

Section 91506(l) was added to restrict the generation or use of credits that would result in a total facility-wide health risk from air toxic contaminants greater than district-established significance thresholds that apply to emissions trading. This provision also requires Districts to provide for public disclosure of any increases in toxic air emissions which result in a total facility-wide cancer health risk above ten in one million or a total facility hazard index greater than one. Health risk would be assessed using cancer potency values and reference exposure levels established by the Office of Environmental Health Hazard Assessment.

Section 91507(a)(2) was modified to provide for a more stringent baseline for calculating the value of an emissions credit, where appropriate.

Attached is a copy of Board Resolution 97-19, approving the above described regulatory action. Attachment A to the resolution contains the approved regulatory language, with additions to the originally proposed text shown by underline, and deletions shown by strike-out.

In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to adopt sections 91500 through 91508, as approved, after making the modified regulatory language available to the public for comment for a period of at least 15 days, provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulation to the Board for further consideration if he determines that this is warranted.

Written comments must be submitted to the Clerk of the Board, Air Resources Board, P.O. Box

2815, Sacramento, California 95812, no later than June 30, 1997, for consideration by the Executive Officer. Questions regarding this mail-out may be directed to Ms. Lucille van Ommering, Staff Air Pollution Specialist, Office of Air Quality and Transportation Planning, at (916) 323-0296. Only comments relating to the modifications described in this notice (i.e., the underline and strike-out text in Attachment A to the Resolution) will be considered by the Executive Officer.

Sincerely,

Michael P. Kenny

Executive Officer

Attachment

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**State of California**  
**AIR RESOURCES BOARD**

**Resolution 97-19**

May 22, 1997

Agenda Item No: 97-4-2

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the "Board") to adopt standards, rules, and regulations, and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 39607.5(a) of the Health and Safety Code requires the Board to develop and adopt a methodology for use by Air Pollution Control/Air Quality Management Districts (Districts) to calculate the value of credits issued for emission reductions from stationary, mobile, indirect, and area sources, including those issued under market-based incentive programs when those credits are used interchangeably;

WHEREAS, section 39607.5(b) of the Health and Safety Code requires the Board to ensure that the methodology results in the maintenance and improvement of air quality by requiring emission credits to be permanent, enforceable, quantifiable, and surplus to the reductions required to attain and maintain federal and state air quality standards, and is otherwise in compliance with Division 26 of the Health and Safety Code;

WHEREAS, section 39607.5(b) of the Health and Safety Code requires the Board to consider the viability of the trading process, opportunities for source flexibility and banking of credits, and

the length of time that the credits are to be valid;

WHEREAS, sections 40920.6(c) and (d) of the Health and Safety Code require Districts to allow the retirement of emission reduction credits in lieu of compliance with best available retrofit control technology (BARCT) and other feasible emission control measures if specified criteria are met;

WHEREAS, the staff has developed a "Proposed Regulation To Establish A Statewide Methodology To Calculate The Value Of Emission Reduction Credits That Are Used Interchangeably" that would establish principles and criteria with which Districts must comply when developing programs to allow the interchangeable use of emission reduction credits;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project having significant adverse environmental impacts be adopted as proposed if feasible alternatives or mitigation measures are available to eliminate or substantially reduce such impacts;

WHEREAS, the staff has held public workshops and consultative meetings with the Districts, the California Air Pollution Control Officers Association, interested business and industry representatives, and environmental organizations in developing the proposed methodology;

WHEREAS, the staff has prepared an "Initial Statement of Reasons for Rulemaking" (staff report) that describes the bases and rationale for the elements of the proposed regulation and has made that staff report available for public comment at least 45 days in advance of the Board Hearing;

WHEREAS, a public hearing and other administrative proceedings were held in accordance with the provisions of Chapter 3.5 (commencing with Section 11340), Part 1, Division 3, Title 2, of the Government Code;

WHEREAS, based upon the information presented by the staff and the public comments received, the Board finds that:

1. The generation and use of emission reduction credits can provide a cost-effective alternative for complying with certain District emission reduction requirements.
2. This regulation is necessary to ensure that the generation and use of emission reduction credits do not interfere with attaining and maintaining federal and state air quality standards and to provide flexibility and consistency to regulated entities by retaining the value of credits that are certified and banked for future use to meet applicable District requirements.
3. The regulation meets the requirements of section 39607.5 of the Health and Safety Code; specifically the regulation:
  - (a) ensures that the calculation methodology shall result in the maintenance and improvement of air quality consistent with Division 26 of the Health and Safety Code, including but not limited to the requirements of the California Clean Air Act set forth in sections 40910-40927; market-based incentive program criteria set forth in section 39616; programs governing Toxic Air Contaminants and Air Toxics "Hot Spots", as set forth in Chapter 3.5 and Part 6 of Division 26

of the Health and Safety Code, respectively; and District banking and offset systems, as set forth in sections 40709-40714.5;

(b) allows for credit use in market-based incentive programs adopted pursuant to section 39616 of the Health and Safety Code, and allows the use of all those credits, including those from a market-based incentive program, to meet other stationary or mobile source requirements that do not expressly prohibit that use;

(c) ensures that the methodology does not provide for double-counting of emission reductions, nor provide for an additional discount of credits solely as a result of emissions trading if a district has already discounted the credit as part of its process of identifying and granting those credits to sources; and

(d) ensures that any credits shall be permanent, enforceable, quantifiable, and surplus.

4. Interchangeable credits used consistently with this regulation will, in the aggregate, not result in greater annual pollutant emissions than would have occurred without trading.

5. District adoption and implementation of calculation protocols consistent with the principles and criteria contained in this regulation will ensure that emission credits are real, surplus, permanent, quantifiable, and enforceable.

6. Emission reduction credits or market-based trading instruments that are generated under programs authorized by sections 39616 and 40440.1 can be used interchangeably if a study conducted by the District and concurred with by the Board determines that the interchangeable use of such credits meets all applicable requirements.

WHEREAS, the Board further finds that:

1. The proposed regulation is not anticipated to result in a significant adverse environmental impact due to emissions increases because any credits used to comply with specific District emission reduction requirements must yield reductions equivalent to or greater than the measure(s) they replaced.

2. The regulation does not allow the use of interchangeable credits to meet technology- or risk-based requirements such as BACT or air toxics control measures (ATCMs).

3. Generation and use of interchangeable credits in trades where toxic air contaminants are associated with criteria pollutants such as VOCs and PM may result in increases in emissions of toxic air contaminants and associated health risk.

4. The magnitude of potential increases in health risk from toxic air contaminants will be limited and shall not exceed District-established significance thresholds for facilitywide cancer risk or a facilitywide hazard index of one for non-cancer health effects.

5. The public disclosure requirements in the regulation and in CEQA ensure that information about localized air toxics impacts is available for consideration by the public and by District Governing Boards that establish thresholds for significant health risk at the local level.

6. There are no feasible mitigation measures or alternatives short of prohibiting trading of criteria

pollutants which have a toxic air contaminant component that would substantially reduce the potential adverse impacts of the proposed regulatory action while at the same time providing businesses the opportunity to use emission reduction credits as a compliance option in lieu of meeting certain district requirements.

7. Specific economic considerations, i.e. the need to provide the regulated community with the compliance flexibility required by statute, outweigh the minor unavoidable environmental risks associated with potential increases in toxic air contaminants at specific facilities engaging in trading.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves a new Subchapter 5.5, sections 91500 through 91508, Title 17, California Code of Regulations, as amended by the Board and set forth in Attachment A hereto.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to adopt the provisions set forth in Attachment A after making them available to the public for a period of

15 days, provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make modifications as may be appropriate in light of the comments received, and shall present the regulation to the Board for further consideration if he determines this is warranted.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to send the adopted regulation to the Districts and provide assistance to any District that elects to develop an emission credit trading program in compliance with the adopted regulation.

BE IT FURTHER RESOLVED, that this regulation shall apply to any District that adopts, implements, or amends a rule or regulation that provides for the generation and use of interchangeable emission reduction credits to ensure that District emission credit trading programs comply with the principles and criteria established in this regulation.

BE IT FURTHER RESOLVED, that the Board directs staff to submit the adopted regulation to the Office of Administrative Law with a request that this regulation become effective upon filing with the Secretary of State in order to facilitate District development and adoption of interchangeable credit trading programs which they are authorized or required to adopt by law.

I hereby certify that the above is a true and correct copy of Resolution 97-19, as adopted by the Air Resources Board.

Pat Hutchens, Clerk of the Board

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**Proposed Regulation to Establish a Statewide Methodology To Calculate the Value of Emission Reduction Credits That Are Used Interchangeably**

California Air Resources Board

The proposed regulation would be incorporated as new section 91500 through 91508 of

Subchapter 5.5, Chapter 1, Division 3, Title 17, California Code of Regulations, to read as follows:

## **Subchapter 5.5 INTERCHANGEABLE AIR POLLUTION EMISSION REDUCTION CREDITS**

### **Article 1. Scope and Policy; Definitions**

#### **91500. Purpose.**

This regulation establishes a statewide methodology for use by air pollution control and air quality management districts (Districts) when calculating the value of emission reduction credits from stationary, mobile, or area sources. As such, this regulation (1) provides a uniform exchange mechanism for stationary, mobile, and area source credits; and (2) provides for the use of credits as a compliance alternative for meeting specified District control requirements. The regulation is intended to ensure that interchangeable credits represent verified emission reductions that are real, permanent, quantifiable, enforceable, and surplus to those emission reductions which are needed to comply with existing requirements and with District air quality plans.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

#### **91501. Definitions.**

The following definitions shall apply in ~~In complying with this regulation, Districts shall apply definitions included in District rules adopted pursuant to section 40709 et seq. of the Health and Safety Code, except as defined below.~~

(a) "Air quality plan" includes, but is not limited to, attainment, rate-of-progress, and maintenance plans adopted by Districts pursuant to State requirements specified in Chapter 10 (commencing with section 40910) of Part 3 of the Health & Safety Code (the California Clean Air Act), and federal requirements specified in the Clean Air Act governing the State Implementation Plan (SIP).

(b) "Certified" means an interchangeable credit has been evaluated by the air pollution control officer of the affected District pursuant to the requirements of this regulation and found to comply with all applicable District, state, and federal requirements.

(c) "Credit generation period" means the period of time, specified by year, in which interchangeable credits are generated.

(d) "Emission reduction duration" means the length of time during which the action generating the emission reduction credit results in verifiable and surplus emission reductions.

(e) "Hazard Index" means the ratio of the concentration of a toxic pollutant with non-cancer health effects and the reference exposure level for that pollutant.

(f) "Interchangeable credit" means an emission reduction credit generated from a stationary, mobile, or area source that can be used, traded, or banked among programs and/or source

categories as specified in this regulation and in accordance with state and federal law.

(g) "Reference Exposure Level" means a concentration level at or below which no adverse health effects are anticipated.

(h) "Registered" means that an interchangeable credit has been deposited, withdrawn, or transferred through the act of recording a transaction in a District's banking register.

(i) "Surplus" means that the reduction is not required or assumed throughout the time of the emission reduction duration by any local, state or federal permit, rule, regulation, law, ordinance or the most recent locally approved air quality plan, or control measure implementation date. If the control efficiency or emission standard in the most recent locally approved air quality plan is less stringent than the control efficiency or emission standard in the applicable SIP for a specific source category, then the federally approved SIP will be used for purposes of determining surplus reductions.

(j) "Total Hazard Index" means the sum of hazard indices for pollutants with non-cancer health effects that have same or similar adverse health effects.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

## **Article 2. Credit Exchange Function**

### **91502. Certified Credits**

District certified credits that are generated pursuant to relevant district, state, and federal requirements and calculation protocols can be used interchangeably among programs and/or source categories to meet applicable district requirements to the extent provided by district rules.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

### **91503. Credit Denomination**

~~The value of a Credits~~ that is are used interchangeably shall be expressed in certified and registered aspounds of pollutant in one year increments. ~~the year generated.~~

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

### **91504. Banking**

(a) Interchangeable credits shall comply with the requirements set forth in Health and Safety Code sections 40709 through 40714.5, and applicable federal requirements governing the creation, banking, and use of credits. Emission reductions proposed to offset simultaneous emissions increases within the same stationary source need not be banked prior to use as offsets, pursuant to section 40709(c).

(b) The District shall specify the earliest year in which an interchangeable credit can be used.

(c) An interchangeable credit cannot be used prior to its certification and registration, or in any instances in which the District determines such use would not comply with section 91506(d).

(d) Credits can be used interchangeably within the time period specified by the District or ARB, consistent with the air quality plan, applicable state and federal requirements and section 91507(b)(6).

(e) While banked, a certified and registered credit will retain its full value. At the time of use, credits will be subject to prevailing federal, state, and district requirements.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

### **Article 3. Criteria and Methodology for Generation and Use of Interchangeable Credits.**

#### **91505. Applicability.**

(a) The provisions set forth in this subchapter shall apply to any District which adopts, implements, or amends a rule or regulation which provides for the generation and use of interchangeable credits from stationary, mobile, or area sources.

(b) Districts with existing interchangeable credit and trading rules and regulations shall make amendments as necessary to comply with this regulation within nine months of its effective date, unless the District can demonstrate to the satisfaction of the Executive Officer that more time, not to exceed one year total, is necessary.

(c) Districts with market incentive programs authorized by Health and Safety Code sections 39616 and 40440.1 that propose to expand such programs to allow the use of interchangeable credits shall ensure compliance with the criteria set forth in section 39616(c), and this regulation.

(d) Districts may maintain a separate account of emission reduction credits for new source review offset purposes consistent with sections 40709 et seq. and 40918 through 40920.5 of the Health and Safety Code without complying with the provisions of this regulation.

(e) Credits that are used interchangeably must meet all applicable federal, state, and district requirements, including but not limited to the provisions of this subchapter, the adopted air quality plan, and those pertaining to the generation and use of emission reduction credits.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

#### **91506. Generation and Use.**

(a) Districts shall adopt rules which, at a minimum, comply with the provisions of this subchapter and with sections 40920.6(c) & (d) and 40709-40714.5 of the Health and Safety Code prior to allowing the use of interchangeable credits to meet District requirements other than the offset provisions of their new source review programs.

(b) Interchangeable credits must be certified by the District in which the generation occurs and

registered in that District's emission reduction credit bank prior to use. Districts within the same nonattainment area may establish a multi-district banking program.

(c) Districts, in consultation with the Air Resources Board, shall adopt enforceable technical protocols that define how emission reductions will be calculated for purposes of certifying them as interchangeable credits.

(d) Use of interchangeable credits must, in the aggregate, result in no greater annual pollutant-specific emissions than would have occurred in lieu of trading, consistent with the District's portion of the air quality plan. The assessment of equivalency shall take into account the exceedance season for each affected nonattainment pollutant.

(e) Districts shall ensure compliance with federal, state and District requirements governing credit generation and use through permit conditions or other enforceable instruments.

(f) Districts shall not allow the use of emission reduction credits to comply with the "best available control technology" requirements of sections 40405 and 40918-40920.5 of the Health and Safety Code, or with any technology-based requirements of sections 111, 169, 171 and 173 of the federal Clean Air Act.

(g) Districts may authorize the use of interchangeable credits consistent with any federal, state, or local requirements applicable to toxic air contaminants, only if allowed by regulations established pursuant to section 39665 et seq. of the Health and Safety Code, and section 112 of the federal Clean Air Act.

(h) Surplus emission reductions that meet the requirements of Health and Safety Code section 40714.5 can be used to create interchangeable credits. If not already accounted for in District air quality plans, baseline emissions from qualifying sources must be included and accounted for in the next update to the plan.

(i) Emission reduction credits from permitted stationary sources that were certified and banked solely for use in a District's new source review program must be included and accounted for in the air quality plan prior to use in an interchangeable credit trading program.

(j) Emission reduction credits or market-based trading instruments generated under programs authorized by Health and Safety Code sections 39616 and 40440.1 may be used interchangeably outside the market incentive program only upon a determination by the District, based upon a study conducted by the District that, in the aggregate, such credits represent real reductions, and provided that:

(1) the District submits its request and the above study to the ARB at least 120 days prior to the intended interchangeable use of those credits outside of the original market incentive program.

(2) ARB concurs in writing that the District's submittal regarding the interchangeable use of such credits complies with all applicable requirements including the criteria in Health and Safety Code section 39616(c); as it pertains to this program. ARB shall provide a written response containing its finding within 90 days of receipt of the District's submittal.

(k) District rules shall provide for assessment and consideration of potential localized impacts

that use of interchangeable credits may have on the public's exposure to air pollution. ~~In no case shall emissions of toxic air contaminants established pursuant to section 39665 et seq. of the Health and Safety Code and section 112 of the federal Clean Air Act be allowed to increase as a result of credit use.~~

(1) In no case shall the generation and use of credits result in a total facility-wide health risk from toxic air contaminants identified pursuant to Health and Safety code section 39657 that exceeds a district established significance threshold applicable to emissions trading. Health risk shall be assessed using cancer potency values and reference exposure levels established by the Office of Environmental Health Hazard Assessment. District programs shall provide for public disclosure of any increase in emissions of toxic air contaminants which results in a total facility-wide cancer health risk above ten in one million or a total facility hazard index greater than 1.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

### **91507. Calculation Methodology.**

(a) Interchangeable credits shall be calculated based on a District's adopted calculation protocol. The calculation protocol shall include the elements specified in subparagraph (b) and shall be consistent with the following criteria:

(1) Emission reductions used to generate interchangeable credits shall be real, permanent for the term of credit generation, enforceable, surplus, and quantifiable.

(2) Emission reductions shall be calculated using the most stringent of historic actual emissions, applicable requirements, the District's air quality plan, ~~or the federally approved SIP,~~ or, where applicable, other more stringent levels as established in an implementing rule or regulation.

(b) Districts shall provide for enforceable credit calculation protocols and procedures that contain the following elements:

(1) Calculation methods to determine the amount of reductions being generated as credits, including formulae accounting for emissions rate, operating period, activity level, and technical uncertainty.

(2) Procedures for calculating, certifying, and registering credits in one year increments when credits are generated from multi-year emission reductions.

(3) Procedures for certifying that emission reductions are surplus and available for use as interchangeable credits.

(4) Procedures to incorporate emission inventory updates and changes in source category baselines, air quality plans, and applicable regulatory requirements into the credit calculation protocols.

(5) Methodologies used to determine the time period in which a banked credit is available for use, consistent with the air quality plan.

(6) Provisions for the use of ARB calculation methodologies, emission factors, certification

standards, emission baseline data, and timeframes for credit use for mobile sources and for products under ARB regulatory authority.

(7) Provisions for monitoring, recordkeeping, and reporting requirements to verify and enforce credit generation at the specified value over the full generation period.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.

### **91508. Program Reporting**

(a) Districts shall prepare an annual report on their interchangeable credit trading programs that document the following:

(1) Quantity of interchangeable credits generated and used, by pollutant;

(2) Extent to which emission reduction credits were used, by rule and source category, to comply with Best Available Retrofit Control Technology and how they were accounted for in the air quality plan;

(3) Summary of changes made affecting the calculation methodology elements defined in section 91507(b); and,

(4) Actions taken to comply with applicable credit generation and use requirements contained in section 91506.

(5) A finding as to whether use of interchangeable credits complied with section 91506(d) requirements.

(b) As part of the triennial progress assessment of the air quality plan, Districts with interchangeable credit trading programs shall evaluate the performance of the program as an alternative compliance approach to meet applicable District requirements. The evaluation shall include the results of the annual reports and identify what, if any, changes were incorporated into the emission inventory update as a result of program implementation.

Authority cited: Sections 39600, 39601, and 39607.5(a), Health and Safety Code. Reference: Sections 39605, 39607.5(b), 40709-40714.5, and 40920.6(c), Health and Safety Code.