San Joaquin Valley Unified Air Pollution Control District

2013 Annual Demonstration Report

SIP-Creditability of Emission Reductions Generated through Incentive Programs

This page intentionally blank.

Contents

This page intentionally blank.

EXECUTIVE SUMMARY

The San Joaquin Valley Unified Air Pollution Control District (District) currently operates one of the largest and most well-respected incentive programs in California. Since 1992, the District's incentive programs have provided over $500 million in incentive funds. This has been matched by cost-sharing on the part of participating businesses, public agencies, and residents, who together have invested over $400 million. These combined efforts accelerate the adoption of cleaner technologies (beyond what is achieved by stringent regulations alone) to achieve over 100,000 tons of lifetime emission reductions, improve air quality, improve public health, and progress the San Joaquin Valley (Valley) towards attainment of increasingly stringent federal air quality standards. In addition to District-administered incentive programs, the California Air Resources Board (ARB) and the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) also implement highly effective incentive programs in the Valley, further reducing emissions in the Valley.

Although incentive programs result in real air quality benefits, the emission reductions resulting from voluntary incentive programs have generally not been quantified for or provided credit in attainment plans to meet federal Clean Air Act (CAA) requirements. District Rule 9610 (State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs) serves as an administrative mechanism for crediting emission reductions achieved in the Valley through incentive programs for use in state implementation plans (SIPs). The future year emission reductions claimed in District SIPs through Rule 9610 are to be quantified through annual demonstration reports, such as this 2013 Annual Demonstration Report.

The emission reductions quantified for SIP credit as part of this report are summarized in the table below. Extensive documentation of these reductions, related SIP commitments, and other Rule 9610 requirements are included in the remainder of this report and in supporting data provided in the 2013 Annual Demonstration Report Data Sheet that accompanies this report. The emission reductions claimed for SIP credit are accounted for in Table 1 below and include reductions of oxides of nitrogen (NOx), particulate matter (PM), and reactive organic gases (ROG).

Table 1: SIP Claimed Incentive-Based Emission Reductions for Future Years

Pollutant	Emissions Reduced (tons per day)							
	2013	2014	2015	2016	2017	2018	2019	2020
NOx	15.59	12.85	10.90	9.31	6.92	6.68	5.60	3.64
PM	0.57	0.48	0.44	0.38	0.29	0.28	0.24	0.16
ROG	1.23	1.03	1.00	0.98	0.97	0.95	0.76	0.50

I. BACKGROUND

In developing the *2007 Ozone Plan*, the District and ARB recognized the need for additional emission reductions from sources outside of the District's regulatory authority to meet the stringent 1997 8-hour ozone standard, particularly from mobile sources. Subsequently, the plan called for significantly increased incentive funding to help accelerate attainment of the standard. Since then, the District has advocated to increase incentive funding for the Valley, resulting in significantly increased funding the last several years. Recognizing the importance of incentive-based emission reductions in addressing increasingly stringent federal standards, the District and EPA have been working together to develop an administrative framework for providing federal SIP credit for incentive programs.

As part of developing new incentive programs aimed at reducing emissions from agricultural equipment, the District and the USDA NRCS collaborated to ensure that both agencies' incentive programs achieve emission reductions that can be credited in SIPs. Towards that end, in December 2010, the District, EPA, ARB, and USDA NRCS signed a memorandum of understanding (MOU) committing to establish a framework for providing such SIP credit. All parties involved (EPA, NRCS, ARB and the District) agreed to work collaboratively to develop a mechanism to provide SIP credit for emission reductions from federal, state, and local incentive programs that meet the federal criteria of Surplus, Quantifiable, Enforceable, and Permanent.

NRCS and EPA continued to work together to develop a mechanism pursuant to the CAA to quantify SIP credit for emission reductions from farm equipment, achieved through voluntary incentive programs at the state/local level. As a result of these continued efforts, EPA and NRCS signed *Implementation Principles for Addressing Agricultural Equipment under the Clean Air Act,* in July 2012.

District Rule 9610 is the result of the collaborative efforts between EPA, ARB, NRCS, and the District. Rule 9610 provides the District with an administrative mechanism to take SIP credit for crediting incentive-based emission reductions achieved in the Valley. The key components of the District's Rule 9610 SIP-crediting process include:

- **Incentive Program Guidelines** for specific programs, developed through a public process with opportunity for public commenting and EPA concurrence.

- **A Manual of Procedures**, which assures that all incentive program guidelines used for SIP creditability are publicly available and maintained in a centralized location on the District's website.

- **Annual Demonstration Reports**, such as this report, to quantify the amount of emissions reductions achieved by incentive programs meeting the requirements in Rule 9610. More information on report components and process is included later in this report.

Throughout the SIP-crediting process, the goal is to quantify incentive-based emission reductions that satisfy the following EPA integrity principles (defined in Section 2.0 of Rule 9610):

- **Surplus:** emission reductions are not otherwise required by any federal, state, or local regulation or other legal mandate. These emission reductions must also be in excess of the baseline inventories underlying a SIP attainment demonstration.

- **Quantifiable:** emission reductions can be reliably determined and replicated through the use of well-established, publicly available emission factors and calculation methodologies.

- **Enforceable:** based on the following provisions:
    - The emission reductions must be independently and practicably verifiable through inspections, monitoring, and/or other mechanisms;
    - Incentive program violations are defined through legally binding contracts, including identifying party or parties responsible for ensuring that emission reductions are achieved;
    - Grantees are obligated to provide all records needed to demonstrate that emission reductions are achieved; and
    - The public has access to all emission-related information for reductions claimed in the annual demonstration report, as outlined in Section 4.0 of Rule 9610.

- **Permanent:** for the lifetime of the project, assured by actions taken to physically destroy, or permanently disable, baseline equipment or vehicles, or to permanently amend practices to ensure the reduction of emissions for the duration of the project life.

This report demonstrates that the incentive-based emission reductions quantified and claimed for SIP credit meet each of these four integrity principles and complies with requirements in Rule 9610.

II. ANNUAL DEMONSTRATION REPORT ELEMENTS

This District-prepared report will demonstrate the quantity of emission reductions achieved through SIP-creditable incentive programs. District Rule 9610 includes several requirements be met in order to demonstrate that the claimed incentive-based emission reductions are SIP-creditable. The elements described in Section 4.0 of Rule 9610 that this 2013 Annual Demonstration Report includes are summarized in Table 2.

Table 2: Annual Demonstration Report Requirements

Element	Where satisfied
Description of guidelines used, how the guidelines ensure that the claimed emission reductions are SIP-creditable, and a list of any procedures being used for the first time under the rule	Section III of this report
Quantification of emission reductions generated through incentive programs, summarized by pollutant and by years and including: • Cost-effectiveness • Funding amount • Incentive program guideline • Project type	Section VII of this report
Adjustments to reductions claimed in prior annual demonstration reports	NA
Identification of SIP commitments in District adopted SIP(s) which the District has satisfied in whole or in part through Rule 9610, including identification and quantification of, and remedies for, any shortfalls	Section IV of this report
Project information, including the following, as applicable: • Project identification number • Project location • Project type • Project life • Implementation date • Funding provided by the District, NRCS, or ARB • Guidelines used • Quantified emission reductions per year, and aggregated over the project life, by pollutant • Description of baseline and new equipment • Additional details as needed	Appendices A and B of this report, Manual of Procedures, and 2013 Annual Demonstration Report Data Sheet
Summary of monitoring and enforcement activities for the reporting period for incentive programs for which SIP-creditable emission reductions are being claimed, including: • Identification of project audits, usage reports, inspections, and other monitoring activities • List of projects that do not satisfy contractual requirements and associated enforcement actions/remedies	Section V of this report
Incentive Program Evaluation: retrospective assessment of the incentive program performance and recommendations, if any, for future enhancements	Section VI of this report

Annual Demonstration Report Process

Section 5.0 of Rule 9610 requires the following process for the annual demonstration report:

1. **The APCO shall submit the annual demonstration report and information described in Section 4.0 to ARB and EPA no later than August 31 of each year.**
   The APCO will present the 2013 Draft Annual Demonstration Report to the District Governing Board for review on June 20, 2013. The 2013 annual demonstration report will be submitted to ARB and EPA for concurrence after the June Governing Board public hearing, and prior to August 31, 2013.

2. **The APCO shall release the draft annual demonstration report to the public and present it to the District Governing Board prior to submittal to ARB and EPA for concurrence.**
   The 2013 Draft Annual Demonstration Report was released to the public for review and comment on Tuesday, May 21, 2013. The public comment period ended at 5:00 PM on Tuesday, June 04, 2013. No comments were received. The public has an additional opportunity to comment on the draft report at the June 20, 2013 Governing Board public hearing when it will be presented to the Governing Board.

3. **Previously submitted annual demonstration reports shall be made available on the District's website.**
   As this is the first annual demonstration report, there are currently no previous versions available on the District's website. However, the rule will be made available on the District's Manual of Procedures website after it has been submitted to ARB and EPA for concurrence.

Recordkeeping Requirements

Section 6.0 of Rule 9610 requires all documents created and/or used in implementing the requirements of Section 4.0 shall be kept and maintained as required by the applicable incentive program guidelines. Consistent with the California Public Records Act and other related requirements, such records shall be made available for public review. The public may request records through the District's Public Records Release Request, available on the District website at: http://www.valleyair.org/General_info/public_records_release_request.htm. However, the records related to implementation of the USDA NRCS Combustion Systems Improvement of Mobile Engines incentive program are prohibited from mandatory disclosure pursuant to the Federal Food Security Act of 1985 (7 U.S.C. § 608d(2)).

III. INCENTIVE PROGRAM GUIDELINES

A. District Administered Incentive Programs

Historically, the District has successfully administered a number of incentive programs aimed at reducing emissions across a wide variety of sectors in the Valley. These programs include:

- The Heavy-Duty Engine Program:
  - Agricultural tractor/mobile equipment
  - Stationary agricultural irrigation pumps
  - On-road trucks
  - Forklifts
  - Off-road construction equipment
  - Locomotives
  - School buses
- Proposition 1B: Goods Movement Emission Reduction Program
  - On-road trucks
  - Locomotives
- Public Benefits Grant Program
  - Light-duty advanced technology vehicles
  - Alternative fuel infrastructure
  - Advanced transit and transportation
- REMOVE Program
  - Bicycle Infrastructure
  - E-mobility
  - Vanpools
  - Commuter subsidies
  - Alternative fuel vehicle mechanics training
- Drive Clean! Rebate Program
- Clean Green Yard Machine Program

More information about the above mentioned programs is available on the District website at: http://www.valleyair.org/Grant_Programs/GrantPrograms.htm. Each of these programs is effective in assisting the Valley in reaching our air quality attainment goals and the benefits of these programs are reflected in a variety of ways, including advancing new technologies, accelerating fleet turnover with the adoption of new technologies, and influencing the behavior of Valley residents towards more air-friendly practices. The majority of the emissions reduced have been achieved through extremely cost-effective heavy-duty equipment replacement, retrofit and repower projects; it is these projects that make up the bulk of the claimed emission reductions claimed in this annual demonstration report.

B. SIP-Creditable Incentive Program Guidelines

Pursuant to Section 4.1 of Rule 9610, the annual demonstration report shall contain a list of any incentive program guidelines that are being used to claim SIP credit under this rule

for the first time. As this is the first annual demonstration report, all incentive program guidelines listed in this report are being used for the first time. That is to say, this is not the first time these guidelines are being used, but the first time they are being used to claim SIP credit under the administrative mechanism created by Rule 9610.

Section 3.0 of Rule 9610 provides specific requirements for the District to follow with regard to incentive program guidelines. This section of the rule identifies pre-approved guidelines, guidelines for which EPA will need to make determinations on before granting credit in the SIP, and a requirement for maintaining a website whereby the incentive program guidelines are publicly available.

Section 3.1 of Rule 9610 identifies pre-approved incentive program guidelines from which the District can claim credit for incentive-based emission reductions. These guidelines include:

- ARB Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) Guidelines for incentive projects funded by either the Carl Moyer Program or non Carl Moyer funding sources, for the following project types:
    - On-Road Heavy-Duty Vehicle
        - New Vehicle Purchase (Chapter 1, approved 11/17/2005; Chapter 3, approved 2008; or Chapter 4, approved 4/28/2011);
        - Repower (Chapter 1, approved 11/17/2005; Chapter 3, approved 2008; or Chapter 4, approved 4/28/2011); or
        - Retrofit (Chapter 1, approved 11/17/2005; Chapter 3, approved 2008; or Chapter 4, approved 4/28/2011).
    - On-Road Heavy-Duty Vehicles Fleet Modernization/Replacement (Chapter 2, approved 11/17/2005; Chapter 4, approved 3/27/2008; or Chapter 5, approved 4/28/2011).
    - Off-Road Compression-Ignition Equipment
        - Replacement (Chapter 4, approved 3/27/2008; or Chapter 9, approved 4/28/2011);
        - Repower (Chapter 5, approved 11/17/2005; Chapter 5, approved 3/27/2008; or Chapter 7, approved 4/28/2011); or
        - Retrofit (Chapter 5, approved 11/17/2005; Chapter 5, approved 3/27/2008; or Chapter 7, approved 4/28/2011).
    - Portable and Stationary Agricultural Sources
        - Repower (Chapter 10, approved 11/17/2005; Chapter 10, approved 3/27/2008; or Chapter 10, approved 4/28/2011);
        - New purchase of electric motor (Chapter 10, approved 11/17/2005; Chapter 10, approved 3/27/2008; or Chapter 10, approved 4/28/2011); or
        - Retrofit (Chapter 10, approved 11/17/2005; Chapter 10, approved 3/27/2008; or Chapter 10, approved 4/28/2011).

- NRCS Conservation Practice Standard 372 - Combustion System Improvement (approved September 2010); Conservation Practice Standard 723 – Combustion System Air Emission Management (approved May 2009); NRCS General Manual, Title 450, Part 401 – Conservation Practice Standards (approved October 18, 2009); NRCS General Manual, Title 450, Part 407 – Documentation, Certification, and Spot Checking (approved October 17, 2009); Conservation Practice Standard 372 Specification (approved September 2010); NRCS Interim Conservation Practice Standard 723 – Combustion System Air Emission management (approved May 2009); and associated NRCS Program Combustion System Improvement of Mobile Engines Guidelines for incentive projects funded by EQIP funds and accompanying calculation, emission factors, and destruction certification worksheets.

- ARB Proposition 1B Goods Movement Emission Reduction Program Guidelines for Heavy-Duty Diesel Trucks repower, replacement, PM retrofit, or PM + NOx retrofit incentive projects funded by Proposition 1B funds or non-Proposition 1B funds. Applicable ARB Proposition 1B Goods Movement Emission Reduction Program Guidelines are the 2013 Proposition 1B: Goods Movement Emission Reduction Program Guidelines (Appendix A, approved 01/25/2013); the 2010 Proposition 1B: Goods Movement Emission Reduction Program Guidelines (Appendix A, approved 03/25/2010); and the 2008 Proposition 1B: Goods Movement Emission Reduction Program Guidelines (Appendices A or B, approved 02/28/2008).

The summaries of SIP-creditable incentive-based emission reductions claimed under Section 3.1 of Rule 9610 are included in Section VII of this annual demonstration report, and the detailed information for each project is presented in the 2013 Annual Demonstration Report Data Sheet that accompanies this report.

Section 3.2 of Rule 9610 allows the District to quantify emission reductions under the rule in accordance with incentive program guidelines not specifically identified in Section 3.1, provided the District submits to EPA a demonstration that each such incentive program guideline provides for SIP-creditable emission reductions. Incentive program guidelines subject to Section 3.2 may include ARB Carl Moyer Program Guidelines, NRCS Combustion System Improvement Conservation Practice Standard 372 and associated NRCS Program Combustion System Improvement of Mobile Engines Guidelines, and ARB Proposition 1B Goods Movement Emission Reduction Program Guidelines. Section 3.2 also allows for SIP-credit for case-by-case determinations under the Carl Moyer Program Guidelines if such determination is reviewed through a public process and submitted to EPA for approval into the SIP. Any case-by-case determinations that have followed the above mentioned process during the report period will be identified in section VII of this report.

The 2013 Annual Demonstration Report employs Section 3.2 of the rule by claiming SIP credit for incentive-based emission reductions from the ARB Carl Moyer Program Guidelines (2005, 2008, 2011) for locomotive alternative technology switchers and new electric forklift purchases. The summaries of these SIP-creditable incentive-based emission reductions claimed under Section 3.2 of Rule 9610 are included in Section VI of

this annual demonstration report and the detailed information for each project is presented in the 2013 Annual Demonstration Report Data Sheet that accompanies this report.

The following discussion demonstrates that each such incentive program guideline provides for SIP-creditable emission reductions.

Locomotive Repower

Projects funded with the 2008 and 2011 Carl Moyer Program Guidelines followed all required steps to ensure SIP-creditability criteria were met as follows:

Surplus – There are currently no federal, state, or local rules or regulations pertaining to the emissions of locomotives in the state of California. Therefore, all incentive-based emission reductions are surplus.

Quantifiable – The Carl Moyer Guidelines provide calculation methodologies and emission factors for locomotive projects. These methodologies have been reviewed and adopted through a public process. All locomotive projects in this 2013 Annual Demonstration Report were quantified using these SIP-creditable calculation methodologies, as referenced on the Manual of Procedures website.

Enforceable – The District performed inspections pursuant to Carl Moyer Guideline requirements and satisfied enforceability requirements under Section 4.0 of Rule 9610. These inspections verified contractual requirements were followed thus ensuring projected emission reductions were achieved. These projects included legally binding contracts between the grantee and the District that identified the party or parties responsible for ensuring that the emission reductions were achieved. These contracts also obligated the grantee to provide all records needed to demonstrate the emissions reduced.

Permanent – Per contractual requirements, the cleaner locomotive is required to be operated for the duration of the project life.

Purchase of New Electric Forklifts

Projects funded with the 2008 Carl Moyer Program Guidelines followed all required steps to ensure SIP-creditability criteria were met, as follows:

Surplus – The current regulation for off-road mobile equipment has an exemption for agricultural-use vehicles. The forklifts that were funded are used solely for agricultural purposes, and therefore are surplus to the state regulation.

Quantifiable – The Carl Moyer Guidelines provide calculation methodologies and emission factors for forklift projects. These methodologies have been reviewed and adopted through a public process. All forklift projects in this report were quantified using these SIP-creditable calculation methodologies. This methodology assumes the baseline equipment to be a new diesel forklift. Therefore, new purchases of electric

forklifts are calculated based on the difference in emissions between a new diesel forklift and a new electric forklift.

Enforceable – The District performed inspections pursuant to Carl Moyer Guideline requirements and satisfied enforceability requirements under Section 4.0 of Rule 9610. These inspections verified contractual requirements were followed thus ensuring projected emission reductions were achieved. These projects included legally binding contracts between the grantee and the District that identified the party or parties responsible for ensuring that the emission reductions were achieved. These contracts also obligated the grantee to provide all records needed to demonstrate the emissions reduced.

Permanent – Per contractual requirements, the new electric forklift is required to be operated for the duration of the project life.

Section 3.3 of Rule 9610 requires the District to develop and maintain a Manual of Procedures that includes all incentive program guidelines used to achieve SIP-creditable emission reductions from incentive programs. The rule requires the Manual of Procedures be made publicly available on the District's website and maintained on an ongoing basis as incentive program guidelines are adopted and includes a description of how incentive program guidelines ensure that emission reductions are SIP-creditable. As this is the first annual demonstration report and it is being taken to the District Governing Board concurrently with Proposed Rule 9610 and associated documents, the Manual of Procedures website is currently available for public viewing in Appendix D of the Final Draft Staff Report for Proposed Rule 9610 and is available on the District website at: http://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2013/June/GoverningBoardPacketJune2013.pdf.

Sections C through E below describe the specific incentive program guidelines identified in Rule 9610 that were used to reduce emissions and calculate the emission reductions included in this annual demonstration report. These guidelines are developed and periodically revised in a public process with opportunity for public review and commenting. In cases where more than one version of an incentive program guideline was used for a given incentive project, the specific version is identified and included within the detailed project information provided in the 2013 Annual Demonstration Report Data Sheet. Based on EPA guidance and requirements of Rule 9610, the following descriptions include details about how each incentive program guideline ensures that the EPA integrity principles (also called SIP-creditability criteria) of being surplus, quantifiable, enforceable, and permanent are fulfilled.

C. ARB Carl Moyer Memorial Air Quality Standards Attainment Program Guidelines

The Carl Moyer Program is a grant program that funds the incremental cost of cleaner-than-required engines and equipment. Adopted in 1999 by ARB, this program was created through a public process and provides incentives to help obtain early or extra

emission reductions, especially from emission sources in environmental justice communities and areas disproportionately impacted by air pollution with a primary objective of obtaining cost-effective and surplus emission reductions.

The Carl Moyer Program has been successfully implemented through the cooperative efforts of ARB and air districts in California. As directed by the California Health and Safety Code, ARB's role is to oversee the Carl Moyer Program by managing program funds, developing and maintaining guidelines, and determining cost-effectiveness methodologies. Air districts use the Carl Moyer Program Guidelines to select, fund, and monitor projects in their jurisdiction by providing grants to public and private entities.

The Carl Moyer Program guidelines include robust administrative requirements to ensure that emission reductions are enforceable and are achieved throughout the life of a project. The District has used the Carl Moyer Program Guidelines to develop the practices that are currently in place to ensure all EPA integrity principles of Surplus, Quantifiable, Enforceable, and Permanent are met. The following is a summary of how the Carl Moyer Program Guidelines meet each SIP-creditability criterion:

Surplus

The Carl Moyer Program Guidelines ensure that projects are surplus to regulations by only allowing projects to be selected that are not required by any federal, state, or local regulation, memorandum of agreement/understanding with a regulatory agency, settlement agreement, mitigation requirement, or other legal mandate. For example, the guidelines have accounted for each adopted regulation to determine the compliance dates of any affected engines and emission benefits claimed by each regulation have been determined. Minimum project lives are established in each component to ensure that the program does not fund actions taken to comply with regulatory deadlines. The minimum project life requirement also ensures the overall cost effectiveness of the program and that the emission reductions are real for the life of the project. The summary below provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity principle of "Surplus" is fulfilled:

- *Requirement that emission reductions generated by incentive programs are not required by other regulation*
  - (Moyer Guidelines Chapter 2, Project Criteria A, H, I, MM).
- *Protocols for quantifying maximum project life and maximum emission reductions which account for upcoming regulatory deadlines for a given source category*
  - (Moyer Guidelines Chapter 2, Project Criteria B, I and MM).
- *Assurance that baseline equipment was in use*
  - (Moyer Guidelines Chapter 3, Section Z.6(B) and AA.2.).
- *Assurance that new/upgraded equipment is not already accounted for in future-year inventories underlying a SIP attainment demonstration by natural fleet turnover, finite equipment life or incentives*
  - The definition of surplus in the Moyer guidelines requires that the emission reductions achieved are above and beyond those required

under existing regulations that are incorporated into a SIP. As part of the SIP development process, ARB reviews the Moyer project mix to ensure that the amount of emission reductions credited to the program are not included in the future year inventories specific to each individual attainment demonstration.

- *Procedures that ensure that old equipment was used in the geographic area of interest*
  - (Moyer Guidelines, Chapter 2, Section S and Chapter 3, Section Z.6.(B)).

Quantifiable

The District evaluates the potential emission reductions that would be achieved by replacing the old equipment with the new equipment using the established calculation methodologies and emissions factors in the program guidelines. The calculation methodology, including calculation formulas, assumptions, emission factors and sample calculations are part of the Carl Moyer Program Guidelines and have been approved through a public process. To ensure that real, quantifiable emission reductions are achieved over the life of a project, the program guidelines require that emission control technologies be certified or verified by ARB (certification or verification by the EPA or International Maritime Organization may be allowed for some source categories for which ARB does not have a certification or verification program). The summary below provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity principle of "Quantifiable" is fulfilled:

- *Emissions data needed to calculate emission reductions must be publicly available, current, and accurate. This should include appropriate emission factors, load factors, and other conversion factors.*
  - Moyer Guidelines, Appendix D (Publicly Available) and Chapter 1, Section E.7 (Allows ARB Executive Officer to modify the Guidelines under a public process, to keep them effective and up-to-date.)
- *Guidelines include necessary formulas and instructions to calculate emission reductions based on above data, and explicit instructions to ensure appropriate data are used in calculations*
  - Moyer Guidelines, Appendix C (contains formulas and instructions)
  - Moyer Guidelines, Supplemental document, "Sample Calculations" (contains formulas and instructions)
  - Moyer Guidelines, Appendix C, Section B.5, and Supplemental document, "Sample Calculations" (contains explicit instructions regarding inputs)
- *Requirement to provide activity data sufficient to determine actual emission reductions*
  - Moyer Guidelines, Chapter 3, Section Z.6.(B)

- *Requirement to demonstrate the percentage of emission reductions that occur in the geographic area of interest, and that emission reductions are therefore SIP creditable*
  - Moyer Guidelines, Section S.
  - Moyer Guidelines, Section Z.6.(B)
- *Requirement to periodically audit completed projects to verify emission reduction projections are fulfilled*
  - Moyer Guidelines Chapter 2, Sections Z.10.
  - Moyer Guidelines Chapter 3, Sections EE.

Enforceable

Emission reductions and other required actions are enforceable if: they are independently verifiable; program violations and those liable are defined; information needed to determine emission reductions is available to the public; and they are practicably enforceable in accordance with other EPA guidance on practicable enforceability. The summary below provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity principle of "Enforceable" is fulfilled:

- *Require Grantees to provide all necessary recordkeeping and reporting needed to verify emission reductions*
  - Moyer Guidelines, Chapter 3, Section Z.9 and DD
- *Require inspections to ensure incentive program information is consistent with actual operating equipment*
  - Moyer Guidelines Chapter 3, Sections AA and BB.
- *Identify liable parties and liability associated with contract noncompliance*
  - Moyer Guidelines Chapter 3, Section Z.11.

Permanent

To ensure that the SIP-creditable emission reductions are permanent, actions such as pre-inspections and post-inspections of the new equipment and verification that the baseline equipment has been destroyed through the required process as described in the program guidelines are performed. The summary below provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity principle of "Permanent" is fulfilled:

- *Data needed to determine and track location of activity*
  - Moyer Guidelines, Chapter 3, Section DD
- *Provisions for ensuring that the project was completed, including the verification of disposition of baseline equipment.*
  - Moyer Guidelines Chapter 3, Sections AA and BB

A summary of emission reductions achieved through the use of the Carl Moyer Program Guidelines is included in Section VII of this report. The complete Carl Moyer Program Guidelines can be found online at: www.arb.ca.gov/msprog/moyer/guidelines/current.htm.

D. ARB Proposition 1B: Goods Movement Emission Reduction Program Guidelines

In November 2006, California voters approved Proposition 1B authorizing $1 billion in bond funding to reduce air pollution associated with the movement of freight along California's major trade corridors. Subsequent implementing legislation established standards and procedures for the expenditure of these funds. Governor Schwarzenegger's Executive Order S-02-07 provides further direction to ensure accountability and transparency in administering bond-funded programs.

ARB developed the *Proposition 1B: Goods Movement Emission Reduction Program Guidelines for Implementation* (Proposition 1B Guidelines),through a public process in consultation with stakeholders, including: air districts, metropolitan planning organizations, port authorities, shipping lines, railroad companies, trucking companies, harbor craft owners, freight distributors, terminal operators, local port community advisory groups, community interest groups, and airports.
The Proposition 1B Guidelines ensure that the District funds qualifying projects that achieve the following results:

- Reduce emissions and health risks;
- Incorporate simplicity and efficiency;
- Ensure cost effectiveness;
- Leverage other funding sources; and
- Provide transparency and accountability.

ARB, under direction from Executive Order S-02-07, established transparency and accountability measures for administering the bond funding. ARB has made all program materials including, but not limited to; guidelines, Board Resolutions, Notice of Funding Availability, summary tables, recommendations for funding, materials from public workshops, and completed applications submitted by local and state agencies available on their website.

Through the Proposition 1B Program, the District provides incentive funds to reduce emissions from eligible heavy-duty trucks traveling through California's major trade corridors and locomotives with the following funding options:

- Retrofit of existing vehicles
- Repower of existing vehicles
- Replace an older vehicle with a newer, cleaner vehicle
- A tiered truck transaction, which involves retrofitting and replacing two different vehicles.

The program is designed to supplement ARB's diesel regulations by funding early compliance or providing extra emission reductions beyond those required by current rules.

The guidelines include robust administrative requirements to ensure that emission reductions are enforceable and are achieved throughout the life of a project. The District has used the Proposition 1B Guidelines to develop the practices that are currently in place to ensure all EPA integrity principles are met. The following is a summary of how the Proposition 1B Guidelines meet each SIP-creditability criterion:

Surplus

The Proposition 1B program supplements ARB's diesel regulations by funding early compliance or providing extra emission reductions beyond those required by current rules. The program guidelines require that the District ensure all trucks being considered to receive funding have had ARB verify compliance with the state's diesel regulations and further require that any trucks under contract with the District be noted as such in the state's online regulation reporting database. This ensures that the new truck will not be used towards compliance during the project life ensuring that the emission reductions are surplus. Chapter 6 Section E discusses the requirements that fleets remain in compliance with the Truck and Bus Regulation and that program funded equipment cannot be used towards compliance with the regulation.

Quantifiable

The District evaluates the potential reductions that would be achieved by replacing the old equipment with the new equipment using the Project Benefits Calculator created by ARB. The calculator is available to the public on ARB's website at http://www.arb.ca.gov/bonds/gmbond/gmbond.htm and is updated by ARB on a regular basis. Chapter 2 Section C Discusses Proposition 1B program emission reduction calculations.

Enforceable

The District has created enforceable contracts, based on requirements in the Proposition 1B Program guidelines, which are signed by both District management and the Grantee to ensure that projects are fully accomplished and the integrity principles are met. The legally binding contracts include, but are not limited to, usage reporting requirements for the Grantee, operating location requirements for the new vehicle, the destruction requirements of the baseline equipment/engine, and an allowance for the District to conduct an audit of the project at any time during the project life. Appendix A of Proposition 1B Program guidelines details contract requirements for truck projects.

Permanent

To ensure that the SIP-creditable emission reductions are permanent, actions such as post-inspections of the new equipment and verification that the baseline equipment has been destroyed through the required process as described in the program guidelines are performed. Chapter 4 Section A of the Proposition 1B program discusses scrap and post inspection requirements.

A summary of emission reductions achieved through the use of the Proposition 1B Program Guidelines is included in Section VII of this report. The complete Proposition 1B

Program Guidelines can be found online at:
http://www.arb.ca.gov/bonds/gmbond/gmbond.htm.

E. USDA NRCS Combustion Systems Improvement of Mobile Engines Incentive Program Guidelines

Under the Food Conservation and Energy Act of 2008, the USDA Secretary provides eligible producers with program support to address serious air quality concerns from agricultural operations and help meet regulatory requirements through the Environmental Quality Incentives Program (EQIP). The National Air Quality Initiative (NAQI, once referred to as "CIG-b") is a voluntary incentive program with the primarily goal to achieve and maintain the health-based National Ambient Air Quality Standards (NAAQS) within designated non-attainment areas of California. Financial assistance is targeted to counties that have been identified as having significant air quality resource concerns by being designated as non-attainment for Ozone and/or Particulate Matter (PM10 / PM2.5). These areas experience air pollution levels that persistently exceed the NAAQS established by the CAA.
http://www.ca.nrcs.usda.gov/programs/eqip/2013/2013_air_quality_initiative.html

Given its experience in running similar incentive programs, the District provided assistance to NRCS in developing this new program. Through this program, NRCS provides incentive funds to assist farmers in replacing diesel powered agricultural equipment with the goal of ensuring the resulting emission reductions meet the SIP-creditability criteria of being surplus, quantifiable, enforceable, and permanent. Since 2009, the NRCS program, in combination with the District's program, has provided over $105 million in incentives for agricultural equipment replacement, with significant continued investment currently ongoing. Eligible participants are owners of land in agricultural or forest production or persons who are engaged in livestock, agriculture, or forest production on eligible land and that have a natural resource concern on the land.

Applications are accepted on a continuous basis with periodic application ranking cut-offs. The NRCS has specific expertise regarding agricultural practices and operations and works closely with agricultural stakeholders in reviewing applications for eligibility. Applications are ranked for funding based upon ranking criteria developed with input from Local Work Groups, Stakeholders, and the State Technical Advisory Committee (STAC). The ranking score of a project is based on multiple factors including but not limited to:

- Whether or not the project location is in an area that has an EPA NAAQS non-attainment designation for PM2.5, PM10, and/or Ozone and what type of designation that area has (for example "extreme" nonattainment).
- If there are currently any local or state agriculturally based air emission regulatory requirements for the area that the project is located.
- The emission level of the baseline equipment/engine and the emission factors of the new/replacement equipment/engine.
- The amount of NOx, ROG, and PM that is projected to be reduced by funding the project.

The ranking criteria ensure that the projects with the greatest amount of reductions, resulting in the highest air quality benefit will be selected for funding.

NRCS has created robust administrative requirements based on those in the Carl Moyer Program Guidelines to ensure that emission reductions are enforceable, are achieved throughout the life of a project, and ensure all EPA integrity principles are met. These requirements are contained in Conservation Practice Standard (CPS) 372 – Combustion System Improvement and associated specifications and procedures. The following is a summary of how the NRCS Guidelines meet each SIP-creditability criterion:

Surplus

Under the NAQI, page 3 of the CA-NRCS program guidelines specifies that SIP creditable emission reductions are "achieved from contracts or parts of contracts funded under the air quality initiative [that] are not required by any federal, state, or local regulation, settlement agreement, mitigation requirement, or other legal mandate." A rule or regulation does not currently exist for off-road mobile agricultural equipment, so the emission reductions resulting from replacing existing mobile off-road agricultural engines funded under the NAQI per CPS 372-Combustion Systems Improvement are surplus. The FY 2013 National Air Quality Initiative Programs Description is posted on-line at: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/EQIP/2013/2013_EQIP_Air_Quality_Initiative_ProgDesc.pdf.
The 2012 CA-NRCS program guidelines are posted on-line at: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/AQI/2012_Combustion_Systems_Improvement_Policy_and_Procedures.pdf

Quantifiable

The District provided technical assistance to CA-NRCS in developing their calculation methodologies. The methodologies from the Carl Moyer Program are the basis for components included in CPS-372 and its supporting documents for the NAQI, including the CA-NRCS program guidelines. The District provided technical assistance to CA-NRCS in developing their calculation methodologies, which are consistent with the Carl Moyer Program. The NRCS Field Office Technical Guide places a ten-year lifespan for projects implemented under CPS 372 – Combustion System Improvement, which is also consistent with the Carl Moyer program. A conservation practice lifespan is the minimum time (in years) the implemented practice is expected to be fully functional for its intended purpose (NRCS General Manual, Title 450, Part 401.15) http://directives.sc.egov.usda.gov/viewerFS.aspx?hid=19430. A list of California NRCS practice standard life-spans are posted on-line at: http://efotg.sc.egov.usda.gov/references/public/CA/List_of_Practices_Lifespans_2012-12_CA_Numeric.xlsx

The emission reductions for each project, including projects with multiple old units for one new unit, are calculated using the methodologies outlined in the Carl Moyer Guidelines. All equipment engines are cross-referenced against an ARB executive

order that verifies the emission of every equipment engine. The NRCS calculation worksheets and emission factors are posted on-line at: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/EQIP/2013/2013_EQIP_Air_Quality_Initiative_Attachments.pdf

Enforceable

The NRCS inspects equipment in proposals prior to contract development to verify the existing mobile off-road agricultural equipment is operational per CPS-372 specifications. Destruction of existing equipment is certified by the disposal operator and participant and date-stamped photos are provided. The certification worksheet is posted on-line at: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/EQIP/2013/2013_EQIP_Air_Quality_Initiative_Attachments.pdf.

On an annual basis NRCS reviews at least 5% of all active projects. From these project reviews NRCS verifies that the new equipment is still operational. http://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=25728.

Per Subpart C, 512.22, participants have control of the land for the length of the proposed contract through deed, lease, or other written authorization. If the applicant does not own the land, the landowner must give written consent to install, operate, and maintain the practice through the lifespan of the practice. This is conducted through a partnership with the USDA Farm Service Agency, who is responsible for program eligibility support.

Subpart F covers Contract Administration and provides for recovering liquidated damages for certain deviations to a contract. Handling contract violations is addressed in Subpart H where violations of contract terms must be corrected by the participant within a reasonable period of time to comply. If the violation continues, the contract may be terminated and future program participation deferred.

Permanent

NRCS eligibility is based on the county that the tractor resides in; in this case, the tractor has to reside within one of the eight counties of the San Joaquin Valley. Under the NAQI, the NRCS prioritizes applications based on a county's non-attainment designation within California. Applications received from attainment areas are not eligible. Currently, only the emission reductions originating from within the eight San Joaquin Valley counties are seeking SIP credit under this proposal. The destruction of the existing mobile off-road engines and equipment are verified per CPS 372 specifications, posted on-line at: http://efotg.sc.egov.usda.gov/references/public/CA/372-spec-09-2010.doc. Destruction certification worksheets are posted on-line at: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/EQIP/2013/2013_EQIP_Air_Quality_Initiative_Attachments.pdf. The NRCS also has a stipulation that the tractor has to be tied to the land where it is in use. This requires that the tractor be used 100% of the time in the San Joaquin Valley. Under the NAQI, NRCS staff verifies by site visit the

operational condition of the existing mobile off-road agricultural equipment. Destruction of the existing equipment and emissions certification verifications are performed to determine contract compliance.

The Combustion Systems Improvement of Mobile Engines incentive program is unique from other incentive programs in that NRCS is explicitly prohibited from identifying Grantees by name. As directed by the Farm Bill (Food Security Act of 1985 (7 U.S.C. § 608d(2))), NRCS must maintain the confidentiality of information provided by an agricultural producer participating in the NRCS Combustion Systems Improvement of Mobile Engines incentive program. The information is exempt from mandatory disclosure and may not be used in judicial or administrative proceedings without the consent of the person involved.

A summary of emission reductions achieved through the use of the NRCS Combustion System Improvement of Mobile Engines incentive program guidelines is included in Section VII of this report. The NRCS Combustion System Improvement of Mobile Engines incentive program can be found online at:

- Conservation Practice Standard 372: http://efotg.sc.egov.usda.gov/references/public/CA/372-std-09-2010.pdf
- Conservation Practice Standard 372 Specification: http://efotg.sc.egov.usda.gov/references/public/CA/372B-OM-ca-8-13.doc
- Procedures: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/AQI/2012_Combustion_Systems_Improvement_Policy_and_Procedures.pdf

IV. RELEVANT SIP COMMITMENTS

Through Rule 9610, the District may rely on projections of SIP-creditable incentive-based emission reductions to satisfy federal CAA requirements, including the demonstration of attainment, Reasonable Further Progress, Rate of Progress, contingency measures, and/or black box reductions (Section 182(e)(5) of the CAA). For such SIP commitments, the District identifies specific amounts of SIP-creditable emission reductions by year in the relevant SIP. This annual demonstration report then identifies the SIP commitments included in District adopted SIPs (by year, pollutant, and magnitude) which the District has satisfied, in whole or in part, through SIP-creditable emission reductions. This annual demonstration report also identifies and quantifies any SIP commitment shortfalls and remedies for addressing those shortfalls.

A. SIP Commitments

The following table is a summary of SIP commitments to reduce emissions for which the District intends to claim credit for using District Rule 9610 as the administrative mechanism. The magnitude of the emission reductions are expressed in tons per day (tpd).

Table 3: Relevant Commitments in District-adopted SIPs

District-adopted SIP	Adoption date	Requirement	Year	Pollutant	Magnitude
2008 PM2.5 Plan	Anticipated 6/20/13	Contingency[1]	2015	NOx PM2.5	4.15 tpd 0.10 tpd
2007 Ozone Plan	9/27/07	ARB commitment to reduce ag equipment emissions[2]	2017	NOx	5-10 tpd
2007 Ozone Plan	4/30/07	"Black Box"	2023[3]	NOx	TBD
2012 PM2.5 Plan	12/20/12	Contingency[4]	2020	NOx	1.9tpd

[1] SJVUAPCD, *2008 PM2.5 Plan* (April 30, 2008). Retrieved May 2013 at http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Final_Adopted_PM2.5/13%20Chapter%209.pdf

[2] ARB, 2007 State Strategy Attachment B, pages 16-17 (September 27, 2007). Retrieved May 2013 at http://www.arb.ca.gov/planning/sip/2007sip/07-28_attachment_b.pdf

[3] Per CAA §182(e)(5), the District is required to, in 2019, identify specific control measures that will achieve the emissions reductions necessary to fulfill the "black box" identified in Chapter 11, page 11-1. http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/16%20Chapter%2011%20April%202007.pdf

[4] SJVUAPCD, 2012 PM2.5 Plan (December 20, 2012). Retrieved May 2013 at http://www.valleyair.org/Workshops/postings/2012/12-20-12PM25/FinalVersion/09%20Chapter%209%20RACM%20RFP%20Contingency.pdf

***2008 PM2.5 Plan* (Contingency Quantification, 2015):** The District meets its *2008 PM2.5 Plan* commitment to quantify an adequate amount of contingency emissions reductions, including SIP-creditable emissions reductions from incentive programs quantified in this report (http://www.valleyair.org/Workshops/postings/2013/6-20-13-R9601/PM25ContingencyQuantification.pdf). On August 28, 2013, EPA proposed to approve a SIP revision to address CAA nonattainment area contingency measure requirements for the 1997 annual and 24-hour fine particulate matter (PM2.5) NAAQS in the San Joaquin Valley.[5] SIP Creditable incentive-based emission reductions accounted for by EPA in this proposed approval include on-road vehicle replacement projects that have been funded through the Prop 1B program and agricultural off-road vehicle replacement projects funded through the Carl Moyer Program.

***2007 Ozone Plan* (Agricultural Equipment, 2017):** The 2007 San Joaquin Valley 8-Hour Ozone SIP, approved by EPA, contained a commitment by the ARB to present to their Board a regulation for off-road mobile agricultural equipment in 2013. The regulation would move California towards meeting ambient air quality standards for the Valley by utilizing the cleanest available technologies. Specifically, the approved SIP includes a goal to achieve emissions reductions of 5 to 10 tons per day of NOx from mobile agricultural equipment in the Valley by 2017 to accelerate progress toward attainment of the ozone standard. The attainment deadline is 2023.

Beginning in 2009, the District and NRCS, in partnership with agricultural stakeholders, launched incentive programs aimed at reducing emissions from agricultural equipment. These programs have been well-funded and have achieved significant emission reductions since 2009. As documented in this report, projects implemented to date will achieve 6.68 tpd of NOx reductions in 2017 (see table 5), making significant progress, and in fact, already exceeding the minimum of 5tpd NOx commitment in the *2007 Ozone Plan*. While included in this report, ARB plans on reporting on overall progress made relative to this SIP commitment in the 3rd quarter of 2013 (see below description of ARB's ag equipment effort, and http://www.arb.ca.gov/ag/agtractor/agtractor.htm for further information).

In addition to these already implemented projects, the District has already executed an additional $30.2 million in contracts for 737 units, projecting to achieve an additional 1.41 tons of summertime NOx/day in 2017. NRCS has also executed an additional $36.5 million in contracts for 688 units, projecting to achieve an additional 2.18 tons of summertime NOx/day. Combined with the reductions documented in this report, these projects are **expected to achieve 10.27 tpd of NOx reductions in 2017**. The District and NRCS are continuing to invest significant additional funding to replace agricultural equipment, and the total emissions reductions achieved towards this commitment is continued to grow substantially in the next several years. This progress will be documented in future annual demonstration reports.

[5] EPA, Approval and Promulgation of Implementation Plans; California; San Joaquin Valley; Contingency Measures for the 1997 PM2.5 Standards, 78 Fed. Reg. 167, pp. 53113 – 53124. (2013, August 28). (to be codified at 40 CFR Part 52). Retrieved November 2013 at http://www.gpo.gov/fdsys/pkg/FR-2013-08-28/pdf/2013-21010.pdf

The agricultural equipment incentive-based emission reductions documented in this report have been summer-adjusted to allow for comparison with the *2007 Ozone Plan* commitment (based on summer ozone season), using the seasonal emissions inventory fractions included in the plan's emissions inventory as follows:

Table 4: 2007 Ozone Plan Agricultural Equipment Emissions Inventory Seasonal Fraction

Season	Seasonal Fraction
Winter	0.391
Summer	0.609

ARB Rulemaking: ARB's Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment in the San Joaquin Valley was adopted by their Board in October 2013. The regulation provides a mechanism to ensure that the agriculture industry's voluntary participation in incentive programs in the San Joaquin Valley is recognized by the EPA. To meet EPA requirements, the emission reductions must be surplus, quantifiable, enforceable, and permanent. ARB's regulation defines the criteria and process that ARB will use to determine that the reductions from the use of incentives generated from federal, state, and local funds spent on qualifying mobile agricultural equipment projects are surplus, quantifiable, enforceable, and permanent and are therefore eligible for SIP credit.

2007 Ozone Plan **("Black Box" 2023):** This commitment will be accounted for in future annual demonstration reports, since these reductions are necessary to be achieved in 2023.

2012 PM2.5 **Plan (Contingency Quantification, 2020):** This commitment will be accounted for in future annual demonstration reports, since these reductions are necessary to be achieved in 2020.

B. Progress/Achievement of SIP Commitments

The table below provides a summary of progress made towards meeting the above listed SIP commitments.

Table 5: Summary of Progress Made Towards SIP commitments

SIP Commitment	Incentive Program	Reductions (tpd)
2008 PM2.5 Plan: 4.15 tpd of NOx in 2015 0.10 tpd of PM2.5 in 2015	*All data for NOx, 2015. See Section II for more information.*	
	Agricultural Off-road vehicle replacement projects funded through the Carl Moyer Program	1.33 tpd NOx 0.06 tpd PM2.5
	On-road vehicle replacement projects funded through the Prop 1B Program	3.78 tpd NOx 0.15 tpd PM2.5
	TOTAL (in 2015)	5.11 tpd NOx 0.21 tpd PM2.5
	Commitment met? **YES**	
2007 Ozone Plan: 5-10 tpd of NOx from ag equipment in 2017	*All data for NOx, 2017. See Section II for more information.*	
	District Ag Equipment Replacement Program (Moyer)	1.62*
	NRCS Combustion System Improvement	5.06*
	TOTAL	6.68*
	Percentage of commitment met to date (Remaining reductions to be demonstrated in future annual reports)	133%
2012 PM2.5 Plan: 1.9 tpd of NOx in 2020	To be demonstrated in future annual reports, since these reductions are for 2020	
2007 Ozone Plan Black Box	To be demonstrated in future annual reports (by 2019), since these reductions are for 2023	

*Adjusted for summer-time emissions inventory, *2007 Ozone Plan*

C. SIP Commitment Shortfalls

There are no shortfalls at this time; therefore, there are no remedy actions to be taken.

V. MONITORING AND ENFORCEMENT ACTIVITIES

Pursuant to Section 4.6 of Rule 9610 this annual demonstration report includes a summary of monitoring and enforcement activities that were conducted during the reporting period from 01/01/2009 – 05/13/2013. Monitoring is performed on all projects in the form of pre-inspections prior to contract, post-inspections prior to payment and annual usage surveys filled out by the grantee for the life of the project.

Inspections are performed by District staff and include visually verify and photographically document equipment information such as but not limited to:

- Make, model, and model year of the engine and/or vehicle or equipment,
- Vehicle, equipment, and/or engine identification and serial numbers,
- Operational condition of vehicle, equipment, and engine

The District reviews all inspection information to ensure that the submitted information is true and accurate prior to contracting a new project and prior to payment of reimbursement requests from grantees. The table below illustrates the number of pre-inspection and post-inspection that were conducted during the reporting period.

Table 6: Incentive Program Project Inspections

Year	Pre-Inspections	Post-Inspections
2009	1493	126
2010	790	908
2011	1138	973
2012	2293	1355
2013	1224	761

District incentive project contractual agreements specify that Grantees must provide data to the District on an annual basis for the duration of their contract period. The required data includes usage data (mileage, hours of operation, percent utilization within the District, etc). The usage data is analyzed by the District to ensure that the incentive projects are achieving the projected emission reductions. The table below illustrates the quantity of usage report surveys distributed from the District to Grantees and the quantity of Grantee completed usage report surveys returned to the District through May 13, 2013.

Table 7: Incentive Program Annual usage Reports

Year	Usage Report Surveys Distributed to Grantees	Completed Usage Report Surveys Returned to the District
2011	1439	1126
2012	3158	2786
2013	389	281

A. Carl Moyer Program Specific Monitoring and Enforcement Activities

Project specific audits are conducted in addition to the monitoring and enforcement activities mentioned above. The project specific audits are conducted between November and December each calendar year and cover all Carl Moyer Program projects that have been implemented and are at least one year into their contracted project life but have not concluded their contracted project life. Projects selected for audit review consist of a 5% random sample of active projects or 30 projects (whichever is less) and all projects that are at least 6 months past due with their most recent annual usage survey. These audits follow procedures set forth in the 2008 Carl Moyer Program Guidelines. Projects selected for auditing are reviewed to ensure contract terms are fulfilled; emission reduction calculations are verified and project information is confirmed against the District database for accuracy. An inspection is conducted for each project to verify that the equipment, vehicle or practice is still owned (or in practice) by the Grantee and operational in the same piece of equipment and/or intended use as was contracted. Inspections also verify engine/equipment serial numbers, operational condition and verification of functioning odometer, hour meter/usage device, fuel receipts, or electronic monitoring unit.

If deficiencies are discovered as part of an incentive project audit, the District utilizes several remedies, including:

Deficiency: Underreporting usage on one or more annual report

Potential Remedies: Extending project implementation phase
Analyzing average usage over project implementation phase
Demanding return of funds from Grantee

Deficiency: Non-submittal of annual reports

Potential Remedies: Demanding return of funds from Grantee
Excluding Grantee from future incentive programs

Deficiency: Grantee no longer owns equipment

Potential Remedies: Assign contract to new equipment owner
Demanding return of funds from Grantee

2010 Calendar Year Carl Moyer Project Specific Audit: This District conducted audit covered a project set of 408 projects which were at least 1 year into their project life. A 5% random sample of these projects was selected totaling 20 projects consisting primarily of diesel Ag irrigation engines being replaced with electric motors. Of these projects, 5 projects were found to be non-operational due to theft of copper wire, well failure, or closing of a business; 4 projects were found to have inaccurate reading, missing information or improper use of electric motor meters for recording hours of usage; and 2 projects were found to have inaccurate annual usage survey information. In all cases except for the closure of a business, the observed deficiencies were fully resolved with no expected impact on emissions reductions. For the one project that had a closure of the business, the equipment was repossessed by creditors and the business entity was no longer viable thus leaving no recourse for the District. The project was closed and emissions reductions were not claimed.

Of projects audited, 53% reported initial usages levels that were below contracted usage and 32% of the audited projects had past due annual usage surveys. Discrepancies between actual and contracted usage were generally due to the cyclical nature of agricultural irrigation needs. Projects with past due annual usage surveys were monitored and if the grantee failed to submit a survey within 6 months of the due date an inspector was sent out to take a meter reading. The reported usage did not affect the original incentive amounts or expected emissions reductions. Projects were not at the end of contracted project lives; therefore grantees could run the equipment additional hours and satisfy the terms on the agreement.

2011 Calendar Year Carl Moyer Project Specific Audit: This District conducted audit covered a project set of 534 projects which were at least 1 year into their project life. A 5% random sample of these projects was selected totaling 27 projects consisting primarily of diesel Ag irrigation engines being replaced with electric motors. Of these projects, 2 projects were found to have had the associated property sold. In both cases, the District took no further action against the grantee. The projects were closed and the related emissions reductions were not claimed.

Of projects audited, 54% reported initial usages levels that were below contracted usage on one or more of the engines in the project and 46% of the audited projects had past due annual usage surveys. Discrepancies between actual and contracted usage were generally due to the cyclical nature of agricultural irrigation needs. Projects with past due annual usage surveys were monitored and if the grantee failed to submit a survey within 6 months of the due date an inspector was sent out to take a meter reading. The reported usage did not affect the original incentive amounts or expected emissions reductions of the projects. Those that did have a reduction in emissions due to reduced usage still had two (2) or more years remaining of their contracted project lives; therefore grantees could run the equipment additional hours and satisfy the terms of the agreement.

One project had completed its implementation phase and had a reduction in emissions. In this case, it was determined that extending the contract term would allow the applicant to satisfy all contractual terms. The applicant signed a contract amendment extending the implementation phase.

The following table shows projects that were determined to be in violation of their contractual terms and the enforcement actions that were taken by the District

Table 8: Carl Moyer Program Projects with Contractual Violations

Project Number	Contractual Violation	Action Taken
No projects to report		

B. Proposition 1B Program Monitoring and Enforcement Activities

In January 2007, Governor Schwarzenegger signed Executive Order S-02-07 which highlighted the importance of transparency and accountability in administering over $40 billion in bond funding approved by California voters in 2006. The Executive Order directs all State government entities responsible for expending bond proceeds to establish and document a three part accountability structure. In 2008 Department of Finance (DOF) approved the accountability plan that ARB developed for the Proposition 1B Program which includes:

- Front-end accountability, which defines the criteria for expending bond funds as well as the outcomes that the funds are intended to achieve.
- In-progress accountability, which documents actions to ensure projects are staying within scope and cost, and requires semi-annual reports to the Department of Finance.
- Follow up accountability, which requires Program review or fiscal audits to ensure expenditures achieved the intended outcomes and were consistent with legal requirements.

The District evaluates Proposition 1B equipment projects on an ongoing basis though desk reviews of reports and equipment project updates provided by equipment owners, review of electronic monitoring unit data (as applicable), site inspections, equipment inspections, review of equipment maintenance and activity logs, and other measures deemed appropriate. In addition, equipment project contracts require that equipment owners permit the District, ARB, DOF, the Bureau of State Audits, or any authorize designees, access during normal business hours, to conduct ongoing evaluations for the purpose of monitoring the program. The following table shows projects that were determined to be in violation of their contractual terms and the enforcement actions that were taken by the District.

Table 9: Proposition 1B Program Projects with Contractual Violations

Project Number	Contractual Violation	Action Taken
No projects to report		

One applicant participating in this program was paid, per contract, $50,000 for the purchase of a replacement truck. The District found that the truck was not actually purchased by the applicant and District requested the applicant to refund the incentive funding or to fulfill contractual obligations by purchasing the replacement truck. The applicant responded that he/she no longer had funds, refused to return funding or purchase suitable replacement truck. The District filed a case in court against the applicant and received a judgment for $50,000 in October of 2012.

C. Combustion Systems Improvement of Mobile Engines Program Monitoring and Enforcement Activities

The USDA NRCS webpage at http://www.ca.nrcs.usda.gov/programs/eqip/eqip_program_eligibility.html summarizes program eligibility. The guidelines state the following: The Grantee has control of the land for the length of the proposed contract through deed, lease, or other written authorization. If the Grantee does not own the land, the landowner must give written consent to install, operate, and maintain the practice through the lifespan of the practice. Engine improvements are covered under Conservation Practice Standard 372 – Combustion System Improvement, posted on-line in the NRCS Field Office Technical Guide (FOTG) at: http://efotg.sc.egov.usda.gov/references/public/CA/372-std-09-2010.pdf. The CPS 372 practice life is 10 years as described on the FOTG spreadsheet at: http://efotg.sc.egov.usda.gov/references/public/CA/List_of_Practices_Lifespans_2012-12_CA_Numeric.xlsx. NRCS incentive program contracts state that if the tractor is not retained for 10-years then the Grantee will owe a pro-rated amount back to the NRCS.

With regards to the identification of project audits, usage reports, inspections, and other project monitoring activities including enforcement actions as required to Section 4.6 of Rule 9610, the Combustion Systems Improvement of Mobile Engines incentive program is unique from other incentive programs in that NRCS is explicitly prohibited from identifying grantees by name. As directed by the Farm Bill (Food Security Act of 1985 (7 U.S.C. § 608d(2))), NRCS must maintain the confidentiality of information provided by an agricultural producer participating in the NRCS Combustion Systems Improvement of Mobile Engines incentive program. The information is exempt from mandatory disclosure and may not be used in judicial or administrative proceedings without the consent of the person involved. That said, the USDA NRCS is currently reviewing their processes and may in future years be able to provide additional information for purposes of the District's annual demonstration reports.

VI. INCENTIVE PROGRAM EVALUATION

The District's incentive programs have been developed around several core principles, including cost-effectiveness, integrity, effective program administration, excellent customer service, the efficient use of District resources, fiscal transparency and public accountability. As a result of these focused efforts, the District has become a statewide leader in incentive programs with several elements of these programs being held as models for other air districts' incentive programs throughout California. In fact, the ARB routinely calls upon the District to administer statewide incentive programs on their behalf and on behalf of other local air districts. Recent examples include administering the Lower Emission School Bus Program on behalf of ARB and 18 other air districts, the statewide Agricultural Utility Terrain Vehicle (UTV) program and the statewide School Bus Retrofit Program.

The District is regularly audited by independent outside agencies including professional accountancy corporations on behalf of the federal government, ARB, the California DOF and the California Bureau of State Audits. These comprehensive and rigorous independent audits focus on every aspect of our incentive programs including District programmatic and fiscal controls. These audits are conducted to ensure that the public funds to which the District has been entrusted are spent appropriately and in the manner in which they were intended. The District welcomes these opportunities to gain valuable feedback regarding implementation of these critical programs. Periodic evaluations such as these are important tools that the District uses to ensure continuous improvement in operation of these core emission reduction strategies. Towards that end, the District's incentive programs were recently audited by ARB and DOF, including a thorough review of several of the District's largest and most complex incentive programs totaling more than $215 million over a four year period. The audits focused on the District's implementation of the following programs:

- Carl Moyer Memorial Air Quality Standards Attainment Program,
- Air Quality Improvement Program,
- Proposition 1B: Goods Movement Emission Reduction Program,
- Proposition 1B: Lower Emission School Bus Program, and
- Federal Diesel Emission Reductions Act School Bus Program

These audits included an extensive desk review of specific projects, a thorough review of District internal programmatic and fiscal policies and procedures, and field validation of projects to ensure that the expected emission reductions were being achieved in practice. Overall, the results of the audits confirmed that the District's incentive programs are fiscally sound and are "efficiently and effectively achieving their emission reduction objectives." ARB's audit report concluded that the District is meeting or exceeding all requirements for the expenditure of funds and commended the District for administering the Proposition 1B Lower Emission School Bus Program on behalf of 18 other local air districts. However, the District is continually identifying opportunities to refine its incentive programs and improve the operational efficiency and effectiveness.

The most recent audits of District administered incentive programs can be found online at http://www.arb.ca.gov/msprog/moyer/audits/2011/san_joaquin_valley.htm

This section intentionally blank.

This page intentionally blank.

VII. SUMMARY OF EMISSION REDUCTIONS AND COST EFFECTIVENESS

The SIP-creditable incentive-based emission reductions represented in this 2013 Annual Demonstration Report are from incentive projects implemented 1/1/2009 through 5/13/2013. The data represented in these tables will continue to be updated through each annual demonstration report as more projects are implemented each year. Although the purpose of District Rule 9610 is to claim SIP credit for incentive-based emission reductions in the Valley through incentive programs administered by the District, NRCS, or ARB, this 2013 Annual Demonstration Report only claims SIP credit for those programs administered by the District and NRCS. Future annual demonstration reports may include programs administered by ARB. For the detailed data used to create the following summary tables, refer to the 2013 Annual Demonstration Report Data Sheet, available electronically with this annual demonstration report.

Program Summaries

The following table summarizes the total SIP-creditable incentive-based emission reductions generated through incentive programs, expressed in tons per year and tons per day, claimed in this 2013 Annual Demonstration Report. This summary includes SIP-creditable incentive-based emission reductions claimed through incentive program guidelines identified in Sections 3.1 and 3.2 of Rule 9610.

Table 10: Total SIP-Creditable Incentive-Based Emission Reductions Generated Through Incentive Programs

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	1103.44	2660.32	4173.72	5680.67	5725.43	4726.75	4015.30	3432.89	2561.94	2472.73	2079.01	1366.10
PM	36.29	83.56	144.88	206.30	208.10	177.60	162.59	139.15	105.92	102.48	89.06	60.66
ROG	116.23	236.79	366.02	452.52	453.88	381.83	370.03	364.03	358.05	351.10	283.63	187.79
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	3.02	7.29	11.43	15.56	15.69	12.95	11.00	9.41	7.02	6.77	5.70	3.74
PM	0.10	0.23	0.40	0.57	0.57	0.49	0.45	0.38	0.29	0.28	0.24	0.17
ROG	0.32	0.65	1.00	1.24	1.24	1.05	1.01	1.00	0.98	0.96	0.78	0.51

Tables 11 and 12 below are the subsets of the summary provided in Table 10. Table 9 identifies emission reductions claimed through incentive program guidelines pursuant to Section 3.1 of Rule 9610. Table 10 identifies emission reductions claimed through incentive program guidelines pursuant to Section 3.2 of Rule 9610.

Table 11: Emission Reductions Claimed through use of Incentive Program Guidelines Pursuant to Section 3.1

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	1086.37	2643.25	4151.00	5597.52	5642.28	4643.61	3932.15	3349.74	2478.79	2389.58	1996.21	1283.30
PM	35.72	82.98	143.96	202.37	204.18	173.68	158.67	135.22	101.99	98.56	85.16	56.75
ROG	114.60	235.17	364.05	444.22	445.58	373.53	361.73	355.73	349.75	342.80	275.36	179.52
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	2.98	7.24	11.37	15.34	15.46	12.72	10.77	9.18	6.79	6.55	5.47	3.52
PM	0.10	0.23	0.39	0.55	0.56	0.48	0.43	0.37	0.28	0.27	0.23	0.16
ROG	0.31	0.64	1.00	1.22	1.22	1.02	0.99	0.97	0.96	0.94	0.75	0.49

Table 12: Emission Reductions Claimed through use of Incentive Program Guidelines Pursuant to Section 3.2

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	17.06	17.06	22.72	83.15	83.15	83.15	83.15	83.15	83.15	83.15	82.80	82.80
PM	0.58	0.58	0.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.91	3.91
ROG	1.62	1.62	1.97	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.28	8.28
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.05	0.05	0.06	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
PM	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ROG	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Cost Effectiveness

The table below is a summary of the overall cost effectiveness (expressed as dollars per ton of emissions reduced), including incentive contributions, and total lifetime emission reductions, for District-administered incentive programs claimed in this annual demonstration report that utilized the Carl Moyer and Proposition 1B incentive program guidelines as identified in Sections 3.1 and 3.2 of Rule 9610. Because each incentive program guideline calculates cost effectiveness differently, the cost-effectiveness represented in Table 13 was calculated by first determining the cost effectiveness for each individual project and then averaging that number for all projects accounted for.

Table 13: Summary of District-Administered Incentive Programs

Project Type	Incentive Contribution Provided	Grantee Investment	Total Emissions Reductions (Lifetime tons)	Cost Effectiveness ($/tons)
Off-Road Mobile Equipment Replacement/Repower/Retrofit [1]	$35,774,661.59	$28,819,236.24	7,557.19	$4,881.28
Agricultural Pump Repower[1]	$25,945,807	$8,035,811	8086.21	$5,185.30
New Electric Agricultural Pump[1]	$335,144	$1,463,625	387.81	$1,466.23
Trucks Replacement[1]	$89,409,800	$118,119,558	10593.76	$14,051.12
Locomotives Repower[2]	$16,919,908	$4,509,370	1805.24	$8,940.96
New Off-Road Mobile Equipment[2,3]	$82,822	$193,296	3.94	$20,916.97

1. SIP-creditable incentive-based emission reductions claimed through incentive program guidelines identified in Section 3.1 of Rule 9610.
2. SIP-creditable incentive-based emission reductions claimed through incentive program guidelines identified in Section 3.2 of Rule 9610.
3. New Off-Road Mobile Equipment is specific to the new purchase of electric large spark ignition (LSI) forklifts.

Carl Moyer Incentive Program Guidelines

The following set of tables summarize the amount of emission reductions claimed in the SIP under Rule 9610 for incentive programs administered by the District using the Carl Moyer Incentive Program Guidelines. Table 14 summarizes the total SIP-creditable incentive-based emission reductions claimed under Sections 3.1 and 3.2 of Rule 9610. Tables 13 through 16 summarize the emission reductions claimed in the SIP from incentive program guidelines identified in Section 3.1 of Rule 9610, while Table 19 summarizes emission reductions claimed in the SIP for locomotive alternative technology switchers projects and new electric forklift purchases, pursuant to Section 3.2 of the rule.

Table 14: Total Claimed SIP-Creditable Incentive-Based Emission Reductions Using the Carl Moyer Guidelines

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	865.21	1179.70	1568.04	2105.04	2111.29	1203.82	1064.54	1003.99	951.86	901.84	654.55	607.64
PM	22.52	31.19	46.24	69.27	69.84	47.87	45.07	43.46	40.90	38.64	30.65	28.43
ROG	96.41	124.29	170.21	236.49	237.84	165.80	154.00	148.00	142.02	135.07	87.41	84.26
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	2.37	3.23	4.30	5.77	5.78	3.30	2.92	2.75	2.61	2.47	1.79	1.66
PM	0.06	0.09	0.13	0.19	0.19	0.13	0.12	0.12	0.11	0.11	0.08	0.08
ROG	0.26	0.34	0.47	0.65	0.65	0.45	0.42	0.41	0.39	0.37	0.24	0.23

Table 15: SIP-Creditable Incentive-Based Emission Reductions for Off-Road Compression-Ignition Equipment Replacement Claimed Pursuant to Section 3.1

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.00	0.00	170.33	469.96	484.47	484.47	484.47	484.47	484.47	484.47	484.47	484.47
PM	0.00	0.00	7.73	22.81	23.44	23.44	23.44	23.44	23.44	23.44	23.44	23.44
ROG	0.00	0.00	25.47	72.08	73.83	73.83	73.83	73.83	73.83	73.83	73.83	73.83
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.00	0.00	0.47	1.29	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
PM	0.00	0.00	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ROG	0.00	0.00	0.07	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20

Table 16: SIP-Creditable Incentive-Based Emission Reductions for Off-Road Compression-Ignition Equipment Repower and Retrofit Claimed Pursuant to Section 3.1

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	57.54	108.86	158.88	209.04	213.21	205.70	202.80	152.77	105.18	55.17	5.43	0.42
PM	1.57	4.12	6.38	8.05	8.24	7.94	7.77	6.50	4.18	1.92	0.25	0.00
ROG	6.30	12.41	19.36	25.51	26.08	25.24	24.85	19.39	13.73	6.78	0.63	0.00
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.16	0.30	0.44	0.57	0.58	0.56	0.56	0.42	0.29	0.15	0.01	0.00
PM	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00
ROG	0.02	0.03	0.05	0.07	0.07	0.07	0.07	0.05	0.04	0.02	0.00	0.00

Table 17: SIP-Creditable Incentive-Based Emission Reductions for Repower of Agricultural Pumps Engines Claimed Pursuant to Section 3.1

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	790.60	1036.20	1190.57	1307.02	1294.60	394.63	258.26	247.75	243.19	243.19	46.00	21.66
PM	20.38	25.64	30.22	33.45	33.21	11.53	8.90	8.56	8.32	8.32	2.02	0.89
ROG	88.49	109.36	122.05	128.72	127.75	56.54	45.13	44.59	44.27	44.27	2.79	1.18
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	2.17	2.84	3.26	3.58	3.55	1.08	0.71	0.68	0.67	0.67	0.13	0.06
PM	0.06	0.07	0.08	0.09	0.09	0.03	0.02	0.02	0.02	0.02	0.01	0.00
ROG	0.24	0.30	0.33	0.35	0.35	0.15	0.12	0.12	0.12	0.12	0.01	0.00

Table 18: SIP-Creditable Incentive-Based Emission Reductions for Purchase of New Electric Agricultural Pump Motors Claimed Pursuant to Section 3.1

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.00	17.57	25.54	35.86	35.86	35.86	35.86	35.86	35.86	35.86	35.86	18.29
PM	0.00	0.85	0.99	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	0.19
ROG	0.00	0.91	1.37	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	0.98
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.00	0.05	0.07	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.05
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROG	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00

Table 19: SIP-Creditable Incentive-Based Emission Reductions for Locomotives and New Electric Forklift Purchase Claimed Pursuant to Section 3.2

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	17.06	17.06	22.72	83.15	83.15	83.15	83.15	83.15	83.15	83.15	82.80	82.80
PM	0.58	0.58	0.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.91	3.91
ROG	1.62	1.62	1.97	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.28	8.28
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.05	0.05	0.06	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
PM	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ROG	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Proposition 1B Incentive Program Guidelines

The following table is a summary of incentive-based emission reductions claimed in the SIP from incentive programs administered by the District using the Proposition 1B incentive program guidelines, as identified in Section 3.1 of Rule 9610.

Table 20: SIP-Creditable Incentive-Based Emission Reductions for On-Road Trucks

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	91.80	668.19	1185.92	2004.74	2043.25	1952.05	1379.87	858.01	39.20	0.00	0.00	0.00
PM	8.35	20.76	41.43	73.18	74.41	65.89	53.68	31.85	1.18	0.00	0.00	0.00
ROG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.25	1.83	3.25	5.49	5.60	5.35	3.78	2.35	0.11	0.00	0.00	0.00
PM	0.02	0.06	0.11	0.20	0.20	0.18	0.15	0.09	0.00	0.00	0.00	0.00
ROG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NRCS Combustion Systems Improvement of Mobile Equipment Incentive Program Guidelines

The following table provides a summary of the SIP-creditable incentive-based emission reductions claimed in the SIP for incentive projects administered by the NRCS, as identified in Section 3.1 of Rule 9610.

Table 21: SIP-Creditable Incentive-Based Emission Reductions for Agricultural Equipment

Pollutant	Emissions Reduced (tons per year)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	145.08	789.92	1353.02	1495.72	1495.72	1495.72	1495.72	1495.72	1495.72	1495.72	1350.65	705.80
PM	5.35	30.37	54.30	60.64	60.64	60.64	60.64	60.64	60.64	60.64	55.29	30.27
ROG	19.37	108.54	188.64	207.87	207.87	207.87	207.87	207.87	207.87	207.87	188.50	99.33
	Emissions Reduced (tons per day)											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NOx	0.40	2.16	3.71	4.10	4.10	4.10	4.10	4.10	4.10	4.10	3.70	1.93
PM	0.01	0.08	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.15	0.08
ROG	0.05	0.30	0.52	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.52	0.27

Case-By-Case Determinations

The following table provides a summary of the SIP-creditable incentive-based emission reductions for incentive projects that have been approved through a case-by-case process as identified in section 3.2.2 of Rule 9610.

Table 22: **Summary of Case-By-Case Determinations**

Project Number	Total Emissions Reductions (Lifetime tons)	Cost Effectiveness ($/ton)
No projects to report		

Appendix A

District Incentive Program Project Information

This page intentionally blank

Appendix B

NRCS Combustion System Improvement Program Project Information

This page intentionally blank