Appendix D

Manual of Procedures for Proposed Rule 9610 (State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs

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Manual of Procedures
for Proposed Rule 9610 (State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs

Pursuant to Section 3.3 of Proposed Rule 9610, the District will develop and maintain a Manual of Procedures for SIP-creditable incentive-based emission reductions claimed through this rule. The Manual of Procedures assures that all incentive program guidelines used for SIP creditability are publicly available, and maintained in a centralized location on the District's website. To increase public understanding and awareness of the guidelines and the role they play in SIP-creditable of emission reductions, the website will also contain a description of how each incentive program guideline ensures that the incentive program emission reductions are SIP-creditable.

The following is the design and contents of the Manual of Procedures web page that will be presented and maintained on the Districts website after adoption of the proposed rule.

Manual of Procedures

The on-going mission of the San Joaquin Valley Unified Air Pollution Control District (District) is to improve air quality and protect the health of residents in the San Joaquin Valley air basin (Valley). Incentive programs achieve emission reductions beyond those achieved by regulations alone by accelerating the adoption of cleaner technologies. Since 1992, the District's incentive programs have provided over $500 million in incentive funds, resulting in over 100,000 tons of lifetime emission reductions.

SIP-Creditability of Incentive-Based Emission Reductions

When given State Implementation Plan (SIP) credit, incentive-based emission reductions can be used to complement regulatory-based emission reductions to assist meeting federal Clean Air Act (CAA) requirements. District Rule 9610 (State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs) establishes a process through which incentive-based emission reductions can receive federal SIP credit. For incentive-based emission reductions to receive SIP-credit, the District must demonstrate that the emission reductions are Surplus, Quantifiable, Enforceable, and Permanent.

The following is a brief discussion of each of these elements as applicable to the District and incentive-based emission reductions.

Surplus

The District funds incentive projects based on incentive program guidelines that ensure that the resulting emission reductions are not otherwise required by any federal, state, or local regulation or other legal mandate. The emission reductions must also be in excess of the SIP baseline emission inventories underlying a SIP demonstration; meaning the base year, attainment year, and interim year emissions inventories as reported in a SIP that serve as a primary starting point for modeling and other SIP analyses.

Quantifiable

The District evaluates the potential reductions that would be achieved by replacing the old equipment with the new equipment using the established calculation methods and emissions factors in the appropriate program guidelines. To be quantifiable, emission reductions must be reliably determined and replicated through the use of well-established emission factors and calculation methodologies, as outlined in applicable incentive program guidelines. Using well-established emission factors and calculation methodologies ensure that the emission reductions can be replicated.

Enforceable

Emission reductions are enforceable if the incentive programs include the following provisions:

- The emission reductions must be independently and practicably verifiable for the duration of the project life 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.

Permanent

For purposes of SIP-creditability of incentive-based emission reductions, permanent is defined as permanent for the lifetime of the project. Permanence is ensured by actions taken to physically destroy or permanently disable, existing or baseline equipment, practices, or vehicles.

Incentive Program Guidelines

Carl Moyer Memorial Air Quality Standards Attainment Program Guidelines

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) has been successfully implemented through the cooperative efforts of the California Air Resources Board (ARB) and air districts in California. As directed by the California Health and Safety Code (CH&SC), 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 for the incremental cost of cleaner-than-required engines and/or equipment.

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 Carl Moyer Program Guidelines to develop the practices that are currently in place to ensure all emissions are surplus, quantifiable, enforceable, and permanent, and that emission reductions are SIP-creditable.

Carl Moyer Guidelines:

- 2011 Carl Moyer Program Guidelines (approved 4/28/2011): http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm.
- 2008 Carl Moyer Program Guidelines (approved 3/27/2008): http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm
- 2005 Carl Moyer Program Guidelines (approved 11/17/2005): http://www.arb.ca.gov/msprog/moyer/archive/archive.htm

The following is a summary of how Carl Moyer Guidelines ensure emissions reductions are SIP-creditable.

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 below summary provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity criteria 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 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 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 below

summary provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity criteria 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 emissions 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)
  - Requirement 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 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 below summary provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity criteria of "Enforceable" is fulfilled:

- *Require grantees to provide all necessary recordkeeping and reporting needed to verify emissions 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 emissions 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 below summary provides more detail about how the Carl Moyer Program Guidelines ensure that the SIP-creditability integrity criteria 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

Proposition 1B Goods Movement Guidelines

Proposition 1B Goods Movement Guidelines were developed by ARB 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 guidelines include robust administrative requirements to ensure that emission reductions are surplus, quantifiable, enforceable, and permanent.

Proposition 1B Guidelines:

- 2013 Proposition 1B: Goods Movement Emission Reduction Program Guidelines (approved 1/25/2013): http://www.arb.ca.gov/bonds/gmbond/gmbond.htm.

- 2010 Proposition 1B: Goods Movement Emission Reduction Program Guidelines (approved 03/25/2010): http://www.arb.ca.gov/bonds/gmbond/archives/archives.htm

- 2008 Proposition 1B: Goods Movement Emission Reduction Program Guidelines (approved 02/28/2008): http://www.arb.ca.gov/bonds/gmbond/archives/archives.htm

The following is a summary of how Proposition 1B Guidelines ensure emissions reductions are SIP-creditable.

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 emissions 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 criteria 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 emissions 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.

United States Department of Agriculture Natural Resource Conservation Service Combustion System Imrpovement of Mobile Engines Guidelines

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Combustion System Improvement of Mobile Engines Guidelines (Guidelines) implements robust administrative requirements for incentive projects based on those in the Carl Moyer Program Guidelines to ensure that emission reductions are surplus, quantifiable, enforceable, and permanent.

NRCS Guidelines:

- NRCS General Manual, Title 450, Part 401 – Conservation Practice Standards: http://directives.sc.egov.usda.gov/viewerFS.aspx?hid=19430

- NRCS Environmental Quality Incentives Program (EQIP) FY 2013 EQIP Program Information. National Air Quality Initiative: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/EQIP/2013/2013_EQIP_Air_Quality_Initiative_ProgDesc.pdf.

- NRCS Conservation Practice Standard 372 – Combustion System Improvement (approved September 2010): 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/treemenu.aspx

- NRCS Conservation Practice Standard 372 – Environmental Quality Incentive Program California Air Quality Emission Reductions from Replacing Engines FY 2012 *Guidelines, Policies, and Procedures* (approved December 2011, updated May 2, 2012): ftp://ftp-fc.sc.egov.usda.gov/CA/programs/AQI/2012_Combustion_Systems_Improvement_Policy_and_Procedures.pdf

- NRCS Conservation Practice Standard 372 – Worksheets: calculation, emission factors, certification, and destruction certification: ftp://ftp-fc.sc.egov.usda.gov/CA/programs/EQIP/2013/2013_EQIP_Air_Quality_Initiative_Attachments.pdf

- NRCS Conservation Practice Standard 372 – Conservation Practice Specification: http://efotg.sc.egov.usda.gov/references/public/CA/372-spec-09-2010.doc.

- NRCS Interim Conservation Practice Standard 723 – Combustion System Air Emission management (approved May 2009): http://efotg.sc.egov.usda.gov/references/public/CA/CA-Interim-723-Combustion-Systems-AQ-Management_May_2009.pdf

- NRCS General Manual, Title 450, Part 407 – Documentation, Certification, and Spot Checking: http://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=25728

The following is a summary of how NRCS Guidelines ensure emissions reductions are SIP-creditable.

Surplus

Under the NAQI, page 3 of the CA-NRCS program guidelines specifies that SIP creditable emissions 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 Conservation Practice Standard (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 are calculated using the methodologies outlined in the Carl Moyer Guidelines. Additionally, all equipment engines are inspected to verify they are certified to ARB standards before they are paid out. 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. 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 are 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 NRCS 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.

Previously Submitted Annual Demonstration Reports

The District's annual demonstration report submitted to EPA and ARB serves as the reporting mechanism to claim credit in the SIP for incentive-based emission reductions in the Valley that are surplus, quantifiable, enforceable, and permanent. The draft annual demonstration report is made available to the public and presented to the District Governing Board prior to submittal to EPA and ARB no later than August 31 of each year.

The annual demonstration report provides a description of program guidelines used and how each ensures emission reductions are SIP-creditable, accounting of emission reductions achieved through implemented incentive projects, provides a summary of SIP commitments for which SIP-creditable emission reductions will be used to satisfy; provides project specific information, summaries of District project monitorng and enforcement activities; and a retrospecitve evaluation of the District's incentive program performance with recommendations for improvements as appropriate.

2013 Draft Annual Demonstration Report

Additional Resources

Proposed District Rule 9610

Proposed Staff Report with Appendices for adoption of Rule 9610

District Grant and Incentive Programs