State of California
AIR RESOURCES BOARD

STAFF REPORT: INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING

PROPOSED REGULATION FOR STATE IMPLEMENTATION PLAN CREDIT FROM MOBILE AGRICULTURAL EQUIPMENT

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EXECUTIVE SUMMARY

The California Air Resources Board (ARB or the Board) is responsible for protecting public health and the environment from the harmful effects of air and climate pollution. ARB oversees all air pollution control efforts in California, including activities of California's 35 local air pollution control districts and air quality management districts (air districts). The San Joaquin Valley Air Pollution Control District (SJVAPCD) is one of California's largest local air districts and is responsible for air quality in the San Joaquin Valley. Per federal Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS), the San Joaquin Valley is designated as extreme nonattainment for ozone and nonattainment for fine particulate matter (PM2.5).

The San Joaquin Valley is the most productive agricultural area in the world, and emissions associated with diesel-powered off-road mobile agricultural equipment are a significant contributor to the region's air pollution problem. Diesel-powered mobile agricultural equipment emits oxides of nitrogen (NOx), a precursor to ozone formation. Medical studies of large populations have found that ozone exposure is associated with an increase in hospital admissions and emergency room visits, particularly for lung problems such as asthma and chronic obstructive pulmonary disease.

Federal clean air laws require areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans (SIP). SIPs are comprehensive plans that describe how an area will attain NAAQS by the applicable deadlines. In 2007, SJVAPCD developed a SIP to meet the 0.08 parts per million (ppm) 8-hour ozone standard by 2023. The 2007 SIP, which was approved by United States Environmental Protection Agency (U.S. EPA) in December 2011, contains a measure for mobile agricultural equipment which sets a goal to achieve emissions reductions of 5 to 10 tons per day of NOx in the San Joaquin Valley by 2017 in order to accelerate air quality progress. In 2016, another SIP will be due to address the more stringent 2008 ozone standard with and attainment deadline of 2032.

ARB incentive-based air quality programs are designed to achieve near- and long-term emission reductions through investments in cleaner technologies. These programs include the Carl Moyer Program, Assembly Bill 118 - Air Quality Improvement Program, Proposition 1B Goods Movement Program, and Proposition 1B Lower-Emission School Bus Program. Each of these programs address specific air quality priorities, such as the early replacement of older vehicles and engines with newer, cleaner engines and the development and deployment of cleaner vehicle and equipment technology. The success of these programs helps California accelerate progress toward achieving health-based air quality standards, prevents federal sanctions such as the loss of federal highway funds, and assists businesses with equipment upgrades prior to regulatory requirements (with cost-sharing to leverage private funding for all projects).

In particular, since 1998, ARB's Carl Moyer Program has funded the extra capital cost of cleaner-than-required vehicles and equipment to help achieve air pollution reductions that are both early and surplus to regulations. Funds for the Carl Moyer Program include tire replacement and vehicle registration (smog abatement) fees. The Carl Moyer Program provides incentives to private and public agencies to voluntarily clean up older, dirtier vehicles and mobile off-road engines through retrofit or replacement. ARB develops statewide implementation guidelines, distributes funds to air districts, and conducts periodic oversight. Air districts choose which project types to fund from a variety of eligible categories, including on-road and off-road vehicles and equipment, marine, shore power, locomotives, stationary agriculture pumps, emergency equipment, lawn and garden equipment, and light duty vehicle scrap. Funded projects must achieve early or extra emission reductions not otherwise required by law or regulation. SJVAPCD (like other large and medium-sized air districts) contributes match funds as required by the Carl Moyer Program.

SJVAPCD has partnered with ARB from the inception of the Carl Moyer Program and has used the Carl Moyer Program as a model for other local funded programs. As demonstrated through multiple reviews and audits, SJVAPCD's incentive programs are highly efficient and effective.[1] SJVAPCD's voluntary incentive programs fund cleaner-than-required engines and equipment and are a crucial component of the SJVAPCD's efforts to reduce emissions and meet air quality standards. Since the adoption of the 2007 SIP, the agricultural industry has worked collaboratively with the SJVAPCD and the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) to procure and expend federal, state and local funds to reduce pollution by accelerating the turnover of older, dirtier mobile agricultural equipment with the cleanest available technologies, which for mobile agricultural equipment is primarily comprised of Tier 3 and cleaner off-road engines. U.S. EPA has provided guidance on incorporating voluntary measures, such as these incentive programs, into SIPs. To meet U.S. EPA criteria for SIP creditability of incentive funded projects, the emission reductions must be surplus, quantifiable, enforceable, and permanent.

In 2010, SJVAPCD, ARB, NRCS, and U.S. EPA signed a Statement of Principles[2] to work collaboratively to develop a mechanism to provide SIP credit for investments made in the San Joaquin Valley by the agriculture industry to clean up mobile agricultural equipment through local, state, and federal funded incentive programs. This regulatory action is the outcome of this Statement of Principles.

Arising from the Statement of Principles, SJVAPCD developed *Rule 9610 State Implementation Plan for Emission Reductions Generated Through Incentive Programs*

[1] ARB Incentive Program Oversight webpage, http://www.arb.ca.gov/msprog/moyer/audits/audits.htm; http://www.arb.ca.gov/msprog/moyer/audits/2011/sjvarbprogramreview.pdf; http://www.arb.ca.gov/msprog/moyer/audits/2011/sjvdofreview.pdf; http://www.arb.ca.gov/msprog/moyer/audits/2007/sjvapcd_final_report.pdf; http://www.arb.ca.gov/msprog/moyer/audits/2007/dof_sjv_report.pdf

[2] Appendix B, Statement of Principles—December 2010

(Rule 9610)[3] that was approved by their Governing Board on June 20, 2013. Rule 9610 provides administrative requirements for local, state, and federal voluntary incentive programs in the San Joaquin Valley to ensure that emission reductions will be eligible to receive SIP credit.

This proposed regulation, *State Implementation Plan Credit from Mobile Agricultural Equipment,*[4] meets ARB's commitment in the 2007 SIP for a mobile agricultural equipment regulation by providing an administrative mechanism to ensure that incentive funded projects (regardless of funding source) implemented using Carl Moyer Program Guidelines are surplus, quantifiable, enforceable, and permanent, and result in emission reductions that are eligible for SIP credit. U.S. EPA guidance regarding SIP credit for incentive program emission reductions, *Improving Air Quality with Economic Incentive Programs,*[5] describe the same "Integrity Elements," i.e., they must be surplus, quantifiable, enforceable, and permanent. This regulation will complement the SJVAPCD's Rule 9610, and ensure that emission reductions achieved through incentive programs are eligible for SIP credit when quantified and included in a SIP amendment adopted by the ARB and approved by U.S. EPA in accordance with the requirements of CAA. The incentive funded projects implemented by SJVAPCD using Carl Moyer Program Guidelines per this proposed regulation result in SIP creditable emission reductions that help meet the 2007 SIP goal of 5 to 10 tons per day of NOx reductions by 2017. The proposed regulation imposes no administrative costs to ARB, SJVAPCD, and air districts that opt in to participate.

While ARB and the SJVAPCD continue to implement the 2007 SIP, U.S. EPA revised the 8-hour ozone standard in 2008, lowering the level to 0.075 ppm. A new SIP for the revised 8-hour ozone standard will be developed for submittal to U.S. EPA in 2016. This SIP will address additional reductions needed in the San Joaquin Valley to attain the more stringent standard with an attainment deadline of 2032. This plan will require a comprehensive strategy for emission reductions and apply to many source categories. To meet the longer-term emission reductions needs identified in that plan, staff has initiated a second and concurrent regulatory development process for mobile agricultural equipment. Strategies for this second effort will rely on continued use of voluntary incentive programs, the availability and increased use of the cleanest technologies for mobile agricultural equipment (primarily Tier 4 equipment), and equipment trade-up programs.

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[3] Appendix C, San Joaquin Valley Air Pollution Control District Rule 9610 — *State Implementation Plan Credit for Emission Reductions Generated Through Incentive Programs* — June 20, 2013

[4] Appendix A: Proposed Regulation for *State Implementation Plan Credit from Mobile Agricultural Equipment*

[5] U.S. EPA, Office of Air and Radiation (January 2001), *Improving Air Quality with Economic Incentive Programs*, EPA-452/R-01-001, pages 35-44, http://www.epa.gov/ttn/oarpg/t1/memoranda/eipfin.pdf

I. INTRODUCTION AND BACKGROUND

A. Need for Cleaner Air in the San Joaquin Valley

ARB is the State agency responsible for protecting public health and the environment from the harmful effects of air pollution. ARB oversees all air pollution control efforts in California, including the activities of 35 local air districts. ARB works in cooperation with the air districts and U.S. EPA on strategies to attain state and federal standards and to reduce toxic air emissions. SJVAPCD is the local government agency primarily responsible for air quality assessment and improvement in the San Joaquin Valley.

Off-road mobile agricultural equipment is a significant source of emissions in the San Joaquin Valley and in particular, NOx, a precursor to ozone and particulate matter formation. Ozone is a highly reactive gas that forms in the atmosphere through complex reactions between chemicals directly emitted from motor vehicles, industrial plants, consumer products and many other sources. Studies have consistently shown that inhalation of ozone can lead to inflammation and irritation of the tissues lining the human airways. This causes the muscle cells in the airways to spasm and contract, thus reducing the amount of air that can be inhaled. Symptoms and responses to ozone exposure vary widely, even when the amount inhaled and length of exposure is the same. Typical symptoms include cough, chest tightness, and increased asthma symptoms. Medical studies of large populations have found that ozone exposure is associated with an increase in hospital admissions and emergency room visits, particularly for lung problems such as asthma and chronic obstructive pulmonary disease. Several studies have also associated ozone exposure with increased premature mortality in elderly people with chronic diseases of the lungs and circulatory system.[6]

B. California's Agricultural Industry and Mobile Agricultural Equipment in the San Joaquin Valley

California's agricultural industry consists of over 81,000 farms growing and producing over 400 different commodities, making agriculture one of the State's most diverse industries.[7] Producers, custom operators, first processors, and rental companies in the agricultural industry own and operate approximately 160,000 pieces of mobile agricultural equipment Statewide. This equipment is defined as diesel-fueled, self-propelled, off-road equipment or vehicles with greater than 25 horsepower that are used in agricultural operations. Approximately 76 percent of the population are tractors and 24 percent consist of harvesters, loaders, sprayers, conditioners, balers, cotton pickers and other specialized equipment types. Some types of non-tractor mobile agricultural equipment have

[6] *Air Resources Board's Proposed State Strategy for California's 2007 State Implementation Plan,* http://arb.ca.gov/planning/sip/2007sip/apr07draft/sipback.pdf

[7] *California Agricultural Production Statistics*, http://www.cdfa.ca.gov/statistics

unique and specific roles within an operation based on the commodity being produced and usually require specialized functions of the equipment. Non-tractors often have unalterable roles that are specific to certain functions and limit their usefulness for alternate operations, causing non-tractors to be significantly more expensive than tractors. The large expense deters operators from replacing and purchasing specialized equipment which leads to a higher prevalence of older, more polluting equipment within the specialized mobile agricultural equipment population. Some examples of mobile agricultural equipment are shown below:

Figure I-1 Tractor

Figure I-2 Loader

Figure I-3 Combine Harvester

Figure I-4 Almond Harvester

Figure I-5 Sprayer

Figure I-6 Tomato Harvester

In the San Joaquin Valley, mobile agricultural equipment plays a significant role in the air quality challenges as the region has a large agricultural economy. In the current emissions inventory, mobile agricultural equipment accounts for over 13 percent of the total NOx emissions and about 2 percent of the total PM2.5 emissions from mobile sources in the San Joaquin Valley.[8] Although the increasingly stringent U.S. EPA new engine standards for off-road equipment will reduce emissions from mobile agricultural equipment over time, most mobile agricultural equipment is operated for several decades before being retired due to their durability and relatively low cost to maintain. Thus, natural turnover is not sufficient to meet the San Joaquin Valley's near-term clean air needs. As a result, additional early emission reductions from mobile agricultural equipment are needed as an important part of California's strategy to meet NAAQS in the San Joaquin Valley.

In the 2007 SIP, ARB included a commitment to take a measure to the Board to clean up mobile agricultural equipment in the San Joaquin Valley with a goal of achieving reductions of 5 to 10 tons per day of NOx by 2017 to accelerate air quality progress. The overall goal of the measure was to encourage turnover of the mobile agricultural fleet in San Joaquin Valley to the cleanest Tier 4 final equipment. Staff recognized, however, that Tier 4 final equipment may not yet be widely available and that significant reductions can be achieved sooner by upgrading dirty, older equipment now to Tier 3. The measure acknowledged a role for incentive programs and the public health benefit of early voluntary actions. The measure is being implemented through the comprehensive incentive programs in place in the San

[8] California Emissions Projection Analysis Model (CEPAM)
http://outapp.arb.ca.gov/cefs/norcal2012pm25sip/

Joaquin Valley. ARB staff have estimated the benefits to be in the range of 5 to 10 tons per day by 2017.

C. Progress Toward Cleaner Air in San Joaquin Valley Through Voluntary Incentive Program Mobile Agricultural Equipment Projects

Since the adoption of the 2007 SIP, the agricultural industry, SJVAPCD, and NRCS have worked collaboratively to procure and expend federal, state and local funds to reduce pollution by accelerating the turnover of older, dirtier mobile agricultural equipment with the cleanest available technologies (primarily Tier 3 and cleaner off-road engines in mobile agricultural equipment). In a Statement of Principles signed by ARB, U.S. EPA, NRCS, and SJVAPCD in 2010, the agencies agreed to work in partnership to develop a mechanism to ensure that the early emission reductions resulting from these voluntary incentive programs be eligible to receive SIP credit. ARB's proposed regulatory action is the outcome of this Statement of Principles.

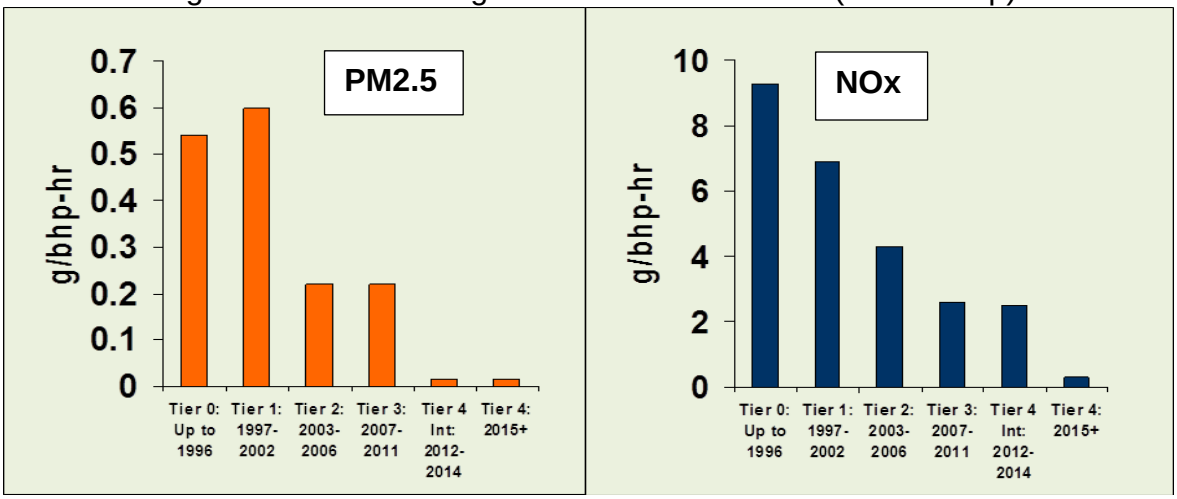
SJVAPCD, at U.S. EPA's request, has developed and adopted Rule 9610 "*SIP Credit for Emission Reductions Generated through Incentive Programs*" (Rule 9610). ARB has worked closely with SJVAPCD and U.S. EPA during the development of Rule 9610, which was adopted by SJVAPCD's governing board June 20, 2013. Rule 9610 provides administrative requirements on local, state, and federal voluntary incentive programs in the San Joaquin Valley to ensure that emission reductions that result from these voluntary incentive programs will be eligible to receive SIP credit. Rule 9610 ensures the emission reductions meet U.S. EPA's "integrity elements", i.e., they are surplus, quantifiable, enforceable, and permanent. On June 26, 2013, ARB submitted Rule 9610 to U.S. EPA for approval.

D. Regulatory Development Process

In 2012, ARB staff began the regulatory development process for mobile agricultural equipment to be eligible to receive SIP credit. This process included gaining a thorough understanding of the unique economy and operational characteristics of mobile agricultural equipment in the agricultural industry, continuing to collect additional data for updating the emissions inventory work that began in 2008, and reviewing and analyzing the cost and availability of Tier 4 technologies for mobile agricultural equipment. The goal at the beginning of this regulatory process was to develop one regulation that would meet the 2007 SIP emission reduction goal for 2017 and attainment of the 1997 ozone standard by 2023, while also addressing the actions required to meet the new, more stringent 8-hour ozone standard by 2032. Over the course of this process, however, it became clear that a two-step regulatory process that ensures SIP credit for voluntary incentive program mobile agricultural projects in the near-term and a longer-term effort to accelerate use of Tier 4 equipment would better serve to maximize the air quality benefits over time while also meeting the 2007 SIP goal for 2017 and 2023.

Staff reviewed and analyzed U.S. EPA and California new engine standards and how the standards are currently being met by engine manufacturers and Original Equipment Manufacturers (OEM). Flexibility and emission credit banking provisions available to the engine manufacturers and OEMs allow for the delayed production and introduction of the cleanest Tier 4 final engine technologies. Staff estimate that cleaner engine technologies will not be introduced for all mobile agricultural equipment applications until about the 2020-timeframe (see Section J below). Until that time, encouraging the mobile agricultural fleet in the San Joaquin Valley to upgrade now with the cleanest technologies currently available, typically Tier 3, offers significant early air pollution reduction benefits. Figure I-7, below, compares emissions standards associated with different Tier engine designations for off-road diesel equipment, and illustrates the significant PM2.5 and NOx reductions achieved by Tier 3 equipment (for 100 to 174 horsepower engines) and the even more substantial reductions that Tier 4 final equipment achieves. Recognizing this, ARB is proposing two rulemakings for mobile agricultural equipment.

Figure I-7 Off-road Engine Emission Standards (100-174 hp)



The first proposed regulation, which is complementary to SJVAPCD's Rule 9610 and outlined in this staff report *State Implementation Plan Credit for Mobile Agricultural Equipment,* provides an administrative mechanism to ensure that incentive funded mobile agricultural projects implemented by SJVAPCD using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. To ensure accountability, SJVAPCD must conduct ongoing project monitoring per the Carl Moyer Program Guidelines. ARB will continue to oversee the Carl Moyer Program by managing program funds; developing and revising guidelines, protocols, and criteria for covered vehicle projects including mobile agricultural equipment; and determining methodologies used for evaluating project cost-effectiveness. Other air districts can opt-in if they comply with the requirements of this proposed regulation.

The outcome of the proposed regulation is SJVAPCD and other air districts that opt-in could be eligible to receive SIP credit for mobile agricultural equipment projects, regardless of funding source, implemented using the Carl Moyer Program

Guidelines. Furthermore, emission reductions from voluntary incentive program mobile agricultural equipment projects in the San Joaquin Valley would be eligible to assist in meeting the 2007 SIP goal of achieving 5 to 10 tons per day of NOx reductions and accelerate progress toward clean air.

Following this rulemaking, a second ARB rulemaking will be developed concurrently with the 2016 SIP for the San Joaquin Valley that will address a new, more stringent 8-hour ozone standard. This 2016 SIP will address additional reductions needed to attain the 2008 standard by the 2032 deadline, likely achieved through strategies that will include relying on the availability of the cleanest technologies in mobile agricultural equipment (Tier 4 final).

E. Proposed Regulation for *State Implementation Plan Credit from Mobile Agricultural Equipment*

The proposed regulation provides an administrative mechanism to ensure that incentive funded projects implemented using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. Using Carl Moyer Program Guidelines ensures these programs produce emission reductions that are surplus, quantifiable, enforceable, and permanent, and meet U.S. EPA guidance for SIP creditability of incentive funded projects. As a result, this proposed regulation will ensure that the substantial investments made by the public sector and by the agricultural industry in the San Joaquin Valley through participation in mobile agricultural equipment projects funded by voluntary incentive programs result in emission reductions that are eligible to receive SIP credit. The emission reductions generated through the NRCS incentive program in the San Joaquin Valley will be eligible for SIP credit through SJVAPCD's Rule 9610. Other California air districts can opt-in to have incentive program mobile agricultural equipment projects receive SIP credit if they comply with the requirements of this proposed regulation.

F. Authority for this Proposed Regulation

ARB has been granted both general and specific authority under the Health and Safety Code (HSC) to adopt the proposed regulation. HSC Sections 39600, 39601, and 39602.5 confer on ARB the general authority and obligation to adopt rules and measures necessary to execute the Board's powers and duties imposed by State law and to attain federal NAAQS in all areas by applicable attainment dates. Also, HSC Section 39602 provides ARB authority to coordinate the activities of the air districts to comply with CAA.

G. Statutory Requirement for SIPs

Section 172 of CAA requires that each state develop a SIP for areas designated as in nonattainment of the primary and secondary NAAQS. The SIP is a plan for each state that contains control measures and strategies which demonstrate how each area will attain and maintain the NAAQS.

The 2007 San Joaquin Valley 8-Hour Ozone SIP, approved by U.S. EPA in December 2011, contains a commitment by ARB to present to the Board a regulation for mobile agricultural equipment.

H. U.S. EPA's Guidance on Voluntary Reductions

U.S. EPA has provided guidance on emission reductions from voluntary incentive programs. To be eligible for SIP credit, emission reductions from these programs must be surplus, quantifiable, enforceable, and permanent. The following describes how the four elements apply to the proposed regulation:

Surplus

Carl Moyer Program Guidelines ensure the resulting emission reductions for mobile agricultural equipment 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 levels; meaning the emission reductions must be in excess of the base year, attainment year, and progress milestone year emissions forecasts that include adopted regulations.

Quantifiable

Carl Moyer Program Guidelines ensure that emission reductions can be reliably determined through the use of well-established, publicly available emission factors and calculation methodologies. Emission reduction calculation methodologies in the Carl Moyer Program Guidelines for mobile agricultural equipment are well-established, use publicly available emission factors that were generated from ARB's Mobile Source Emission Inventory off-road model, and can be replicated by the public.

Enforceable

Carl Moyer Program Guidelines ensure that emission reductions achieved through funded projects are enforceable. The Carl Moyer Program Guidelines require that emission reductions must be independently and practicably verifiable for the duration of the project life through inspections, monitoring, and other mechanisms. Furthermore, incentive program violations are defined through legally binding contracts, grants, or vouchers that identify the party or parties responsible for ensuring that emission reductions are achieved. Funding recipients of voluntary incentive program funds are also obligated to provide all records needed to demonstrate that emission reductions are achieved. All emission-related information for reductions claimed must be available for public access.

Permanent

Carl Moyer Program Guidelines ensure that emission reductions are made permanent for the duration of the project life by requiring that existing (baseline) equipment or vehicles are physically destroyed or permanently disabled, or to permanently amend practices to ensure reductions for the duration of the project life.

I. Existing Air Quality Voluntary Incentive Programs

Since 2008, over 2,500 pieces of mobile agricultural equipment have been replaced through several voluntary incentive programs in the San Joaquin Valley. Staff estimates that these and future projects resulting from continued funding will be sufficient to meet the SIP goal of reductions of 5 to 10 tons of NOx by 2017. When the San Joaquin Valley ozone SIP is updated in 2016, the benefits of incentive programs will be quantified and documented using the mechanism specified in this proposed regulation. Below is a summary of the existing voluntary incentive programs that fund mobile agricultural equipment replacement in the San Joaquin Valley. ARB will continue supporting efforts to secure additional and new sources of federal, state, and local funds to continue achieving early emission reductions that can be credited to the SIP.

Carl Moyer Memorial Air Quality Standards Attainment Program
The Carl Moyer Program has provided $7 million in grant funding for over 180 cleaner-than-required agricultural equipment and engine replacements since 2008 in the San Joaquin Valley. Emission reductions from the Carl Moyer Program projects are SIP creditable; this proposed regulation provides the administrative mechanism to receive those credits. Carl Moyer Program grants are administered by air districts. ARB works collaboratively with the air districts and other stakeholders to set guidelines and ensure the program results in projects that reduce air pollution, achieving early reductions in emissions of key pollutants that are necessary for California to meet its clean air commitments under regulatory requirements. Funding the replacement, repower or retrofit of mobile agricultural equipment is an approved source category in the Carl Moyer Program.

SJVAPCD Agricultural Tractor / Mobile Equipment Replacement Program
SJVAPCD's Agricultural Tractor / Mobile Equipment Replacement Program provides incentive funds for the replacement of in-use, off-road mobile equipment that is engaged in agricultural operations as defined by ARB. The program follows the Heavy-Duty Engine Program, Off-Road Vehicle Component, Agricultural Tractor/Mobile Equipment Replacement Option, Eligibility Criteria, and Application Guidelines, which are modeled after Carl Moyer Program Guidelines. These emission reductions will be able to receive SIP credit through SJVAPCD's Rule 9610. As of

March 2013, the program had allocated over $26 million in grant funding to replace over 1,000 pieces of agricultural equipment.

NRCS, Environmental Quality Incentive Program (EQIP)
EQIP is a federally funded and implemented program that provides financial assistance to implement approved conservation practices to address significant air quality resource concerns for designated high priority geographic locations throughout the nation, specifically states and counties which are designated as non-attainment according to Clean Air Act requirements. In order to help California meet its NAAQS, NRCS established the California Air Quality Initiative through the 2008 Farm Bill to award payment assistance to projects that provide significant environmental benefits. The San Joaquin Valley's eight counties are included in this designation and received $72 million in funding for over 1,300 mobile off-road agricultural equipment replacements through NRCS EQIP from 2009 through 2012. These emission reductions will be able to receive SIP credit through SJVAPCD's Rule 9610. The program operates using the EQIP Guidelines, Policies, and Procedures-Combustion Systems Improvement (Code 372) which were developed using the Carl Moyer Program Guidelines.

J. Delayed Availability of Cleaner Technologies

On May 11, 2004, U.S. EPA adopted Tier 4 standards that require additional reductions of PM and NOx from exhaust emissions for off-road engines, including engines used in mobile agricultural equipment, with the emission standards being phased-in over the period between 2008 and 2015. California adopted equivalent emission standards in 2004. New off-road engine emission standards are effective on January 1 of each year beginning in 2008 through 2015 (by power categories). For example, January 1, 2013, is the effective compliance date for the Tier 4 final emission standards for engines between 25 and 75 horsepower.[9] Off-road engine manufacturers will use a variety of technologies to meet these emission standards including, but not limited to one or more of the following: improved engine design, advance exhaust gas after-treatment, selective catalytic reduction, exhaust gas recirculation, diesel particle filter, or diesel oxidation catalyst.

The new engine regulations include options available to engine manufacturers and OEMs to help enable them to meet these engine standards. Flexibilities in the regulation include U.S. EPA's Average, Banking and Trading Program (ABT) for engine manufacturers and Transition Program for Equipment Manufacturers (TPEM) for OEMs. For engine manufacturers using ABT, engine families are certified by averaging emission levels across engine families and by using emission credits

[9] U.S. EPA (June 29, 2004), *Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel*; Final Rule, 69 Federal Register 38958-39273, http://www.gpo.gov/fdsys/pkg/FR-2004-06-29/pdf/04-11293.pdf

generated from engines previously certified to emission levels that are lower than the applicable certification standard.[10] Taking into account regulatory flexibilities, Tier 4 final engines are not being phased into production to meet the deadlines previously mentioned because engine manufacturers are using ABT credits to meet their emission standards. Also, OEMs are participating in TPEM which allows them to delay introduction of Tier 4 final engines. In addition, engines manufactured specifically for agricultural purposes account for a small percentage of the overall off-road engine population, especially in California as compared to the rest of the country. Therefore, while the Tier 4 final standards will become effective between 2013 and 2015, staff estimates a more reasonable expectation of the availability of Tier 4 final technologies for all power categories in mobile agricultural equipment will be in the 2020-timeframe.

[10] U.S. EPA (October 2008), *Progress Report Vehicle and Engine Compliance Activities*, EPA-420-R-08-11, pages 37-43, http://www.epa.gov/otaq/about/420r10022.pdf

II. STATEMENT OF REASONS

A. Description of Problem Proposal is Intended to Address

The CAA requires states to prepare and submit SIPs to U.S. EPA that demonstrate how each NAAQS will be met by the applicable deadline. SIPs must be reviewed and approved by U.S. EPA. The San Joaquin Valley is classified as extreme nonattainment for the 1997 ozone NAAQS, with an attainment deadline of 2023. The San Joaquin Valley is also classified as extreme nonattainment for the more stringent 2008 ozone NAAQS, with a deadline of 2032. Given the severity of the ozone air quality problem in the San Joaquin Valley, emissions from mobile agricultural equipment must be significantly reduced through a combination of regulations and incentive programs.

U.S. EPA's SIP approval process requires states to demonstrate that emissions reductions are documented and well quantified. This regulation provides an administrative mechanism to ensure that the emission reductions that are being achieved through incentive programs are approved by U.S. EPA. In 2010, U.S. EPA signed a Statement of Principles to work with ARB on a mechanism to provide SIP credit for investments being made in the San Joaquin Valley to clean up mobile agricultural equipment. SJVAPCD and U.S. Department of Agriculture are also signatories. This regulation will be submitted to U.S. EPA to implement the Statement of Principles, and to provide an enforceable process for determining the eligibility of emission reductions from mobile agricultural equipment incentive programs for SIP credit. U.S. EPA approval of the regulation as part of the California SIP will provide assurance that SIP credit can be taken for mobile agricultural equipment emission reductions used to demonstrate attainment of NAAQSs.

B. Proposed Solution

The proposed regulation provides an administrative mechanism to ensure that incentive funded projects implemented by SJVAPCD using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. The proposed regulation requires that, to become eligible to receive SIP credit, mobile agricultural equipment incentive projects must be implemented using Carl Moyer Program Guidelines. Using Carl Moyer Program Guidelines ensures that projects and the resulting emission benefits are surplus, quantifiable, enforceable, and permanent. Consistent with the Carl Moyer Program Guidelines, SJVAPCD and other air districts will be required to ensure accountability by monitoring and reviewing the programs and projects; ensure that projects remain within the area and properly report actual usage; enforce projects if contract terms are not met; and maintain project records and make those records available for public review upon request.

This proposed regulation also allows an opt-in for any other air district in California that complies with the requirements of the proposed regulation.

C. Rationale Supporting the Proposed Solution

Adoption of this mechanism allows SJVAPCD and other air districts to be eligible to receive SIP credit for the emission reductions from mobile agricultural equipment projects required to attain the appropriate NAAQS achieved through voluntary incentive programs. These voluntary incentive programs encourage fleet owners to turn over mobile agricultural equipment to Tier 3 or cleaner mobile agricultural equipment to implement a 2007 ozone SIP measure, which set a goal of achieving 5 to 10 tons per day of NOx reductions by 2017. Providing an accounting mechanism that can be approved by U.S. EPA ensures that California's SIP obligations are quantified accurately. If SIP credit for incentive programs is not approved by U.S. EPA, California would need to adopt additional regulations at a significant cost to businesses in the State.

D. Benefits Anticipated from Regulatory Action, Including the Benefits or Goals Provided in the Authorizing Statute

The proposed regulation ensures that ARB will meet the 2007 commitment to bring to the Board by 2013 a measure for mobile agricultural equipment in the San Joaquin Valley. Staff estimate that the emission reductions that will be eligible for SIP credit as a result of the proposed regulation will help meet the 2007 SIP goal for NOx emission reductions of 5 to 10 tons per day by 2017 and will accelerate air quality progress. Meeting these goals contributes to improved public health and also provides public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

III. SUMMARY OF PROPOSED ACTION

Staff's proposed regulation, *State Implementation Plan Credit from Mobile Agricultural Equipment*, provides an administrative mechanism to ensure that incentive funded projects implemented using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. Other air districts that comply with the requirements of the proposed regulation can opt-in and become eligible to receive SIP credit for voluntary incentive program mobile agricultural equipment project emission reductions.

IV. ENVIRONMENTAL IMPACTS ANALYSIS

A. Introduction

This section provides an environmental analysis for the proposed regulation. Based on ARB's review, staff has determined that implementing the proposed *Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment* will not result in any potentially significant adverse impacts on the environment. This analysis provides the basis for reaching this conclusion. This section also discusses environmental benefits expected from implementing the proposed regulation.

B. Environmental Review Process

ARB is the lead agency for the proposed regulation and has prepared this environmental analysis pursuant to its regulatory program certified by the Secretary of the Natural Resources Agency (14 CCR 15251(d); 17 CCR 60005-60007). In accordance with Public Resources Code Section 21080.5 of the California Environmental Quality Act (CEQA), public agencies with certified regulatory programs are exempt from certain CEQA requirements, including, but not limited to, preparing environmental impact reports, negative declarations, and initial studies (14 CCR 15250). ARB has prepared this environmental analysis to assess the potential for significant adverse and beneficial environmental impacts associated with the proposed regulation, as required by ARB's certified regulatory program (17 CCR 60005(b)). The resource areas from CEQA Guidelines Environmental Checklist were used as a framework for assessing the potential for significant impacts (17 CCR 60005(b)).

If comments received during the public review period raise significant environmental issues, staff will summarize and respond to the comments in the Final Statement of Reasons (FSOR) prepared for the proposed regulation. The final decision-maker will approve the written responses to comments prior to taking final action on the proposed regulation (17 CCR 60007(a)). If the proposed regulation is adopted, a Notice of Decision will be posted on ARB's website and filed with the Secretary of the Natural Resources Agency for public inspection (17 CCR 60007(b)).

C. Prior Environmental Analysis

ARB staff is proposing this new proposed regulation for mobile agricultural equipment that focuses on voluntary actions from the agricultural industry to reduce emissions through participation in incentive funding programs in order to accelerate the use of the cleanest available technologies in the San Joaquin Valley. This proposed regulation follows a Statement of Principles agreement reached amongst SJVAPCD, ARB, NRCS, and U.S. EPA, and with input from the agriculture industry, that would allow for a mechanism to be developed to provide SIP credit for investments being made by the agriculture industry to clean up mobile agriculture equipment. Because this proposed regulation is new, there were no prior

compliance responses required and no prior environmental analyses conducted relating to this proposed regulation.

D. Proposed Regulation

i. Description

The proposed regulation includes the provisions described in Section VII of this Staff Report. This proposed regulation would provide an administrative mechanism to ensure that mobile agricultural equipment incentive funded projects implemented using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. Other air districts that opt-in must also follow the requirements of this proposed regulation.

ii. Methods of Compliance

With the proposed regulation, ARB is providing SJVAPCD and other air districts with an administrative mechanism to ensure that mobile agricultural equipment incentive funded projects implemented using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. Because these administration requirements are already in use by SJVAPCD and other air districts, they do not go above and beyond or add to the standard administrative activities that air districts perform regularly.

E. Environmental Impacts

i. Beneficial Impacts

The proposed regulation provides an administrative mechanism to ensure that mobile agricultural equipment incentive funded projects implemented using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. The mechanism itself does not generate additional emissions reductions, but rather it encourages the funding of future emissions reductions through incentive programs and the voluntary participation of the agricultural industry. Early actions to voluntarily replace older, dirtier mobile agricultural equipment with newer, cleaner equipment using newer, cleaner technologies provide air quality and public health benefits.

The amount of emission reductions generated is dependent upon on the amount of incentive funds available, equipment characteristics such as age and annual usage, and the availability of cleaner technologies. In addition, the Carl Moyer Program Guidelines provides the methodology used to determine a project's emission reductions, cost-effectiveness, and the maximum grant amount that can be awarded.

ii. Resource Areas with No Impacts

Based on ARB's review of the proposed regulation, staff concludes that the proposed regulation is administrative in nature and does not result in any significant or potentially significant adverse impacts on the environment because compliance with the proposed regulation does not result in any physical change to the existing environment. The proposed regulation merely provides an administrative mechanism that does not require or result in any new development or require modifications to buildings or other structures, affect operations at existing facilities, or cause any new land use designation. The proposed regulation is therefore not expected to result in any adverse impacts that result from development including aesthetics, air quality, agricultural and forestry resources, biological resources, cultural resources, geology and soils, greenhouse gases, land use planning, mineral resources, population and housing, public services, recreation, or traffic and transportation.

Additionally, because compliance with the proposed regulation is voluntary and administrative in nature, the proposed regulation does not involve any activity that involves or affects hazardous materials, hydrology and water quality, noise, or recreation because it is an optional mechanism for obtaining SIP credit and does not mandate any action that affects these resources.

Although not required, the proposed regulation will likely encourage SJVAPCD and other air districts to continue to provide funding for the programs, and the agricultural industry to continue to voluntarily replace their older, dirtier equipment with newer, cleaner equipment through these programs. The proposed regulation mandates that, to be eligible to receive SIP credit, SJVAPCD and other air districts must adhere to the Carl Moyer Program Guidelines for mobile agricultural equipment projects to ensure that the emission reductions they produce are surplus, quantifiable, enforceable, and permanent. Other California air districts can opt-in if they comply with the requirements of this proposed regulation.

No discussion of alternatives or mitigation measures is necessary because no significant adverse environmental impacts were identified.

V. ENVIRONMENTAL JUSTICE

State law defines environmental justice as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. ARB is committed to making environmental justice an integral part of its activities. The Board approved its Environmental Justice Policies and Actions (Policies) on December 13, 2001, to establish a framework for incorporating environmental justice into ARB's programs consistent with the directives of State law (CARB 2001). These policies apply to all communities in California, but recognize that environmental justice issues have been raised more in the context of low-income and minority communities. The proposed regulation has no impact on State or other air district's Environmental Justice efforts.

VI. ECONOMIC IMPACT ANALYSIS/ASSESSMENT PREPARED PURSUANT TO GOVERNMENT CODE SEC. 11346.3(b)

A. Potential Cost Impacts of the Proposed Regulation

This proposed regulation does not affect or otherwise alter the economic benefit that businesses have received or will continue to receive from their participation in voluntary incentive programs for mobile agricultural equipment. The proposed regulation causes no additional work load or cost increases for either SJVAPCD or ARB, because ARB and SJVAPCD are already implementing and plan to continue to implement these programs. Furthermore, the Carl Moyer Program provides funding for administration of the program to ARB and participating air districts. Other air districts that opt-in to this proposed regulation may or may not already implement voluntary incentive program mobile agricultural equipment projects, but the proposed regulation imposes no extra work load or cost increases.

B. Major Regulations

HSC Section 57005 requires ARB to perform an economic impact analysis of submitted alternatives to a proposed measure before adopting any major regulation. A major regulation is defined as a regulation that will have a potential cost to California business enterprises in an amount exceeding $10 million. Staff estimates the cost of the proposed regulation to California is no cost.

C. Reasonable Alternatives to the Proposed Regulation and the Agency's Reason for Rejecting those Alternatives

Staff considered two alternatives to the proposed regulation. One alternative considered was "No Regulation"; that is, refrain from establishing a mechanism for mobile agricultural equipment voluntary incentive programs and projects to demonstrate emission reductions that can be eligible to receive SIP credit. Staff rejected this proposal because, as discussed in Section II, the administrative mechanism proposed is necessary for these mobile agricultural equipment voluntary incentive programs and projects to be eligible to receive SIP credit for the emission reductions that they are achieving and will continue to achieve, as well as the emission reductions to be achieved by new projects in the future. Under the "No Regulation" alternative, additional regulations would be needed to achieve the emission reductions equivalent to those achieved by the incentive programs.

The second alternative considered by staff was to accelerate development of a regulation to require the mobile agricultural equipment fleet in the San Joaquin Valley to turn over to the cleanest technologies by a set compliance schedule. Such a compliance schedule would be designed to accomplish fleet turnover at a faster rate than would otherwise occur through natural attrition in order to achieve emission reductions that meet SIP attainment goals.

Staff rejected this alternative for several reasons. First, staff estimates that the mobile agricultural equipment turnover from agriculture industry participation in voluntary incentive programs in the San Joaquin Valley that has been occurring and will continue to occur is sufficient to meet the 2007 emission reduction goal of 5 to 10 tons per day of NOx reductions by 2017. Therefore, the immediate regulatory need is to ensure a mechanism for achieving SIP credit for these emission reductions.

Second, a new ozone SIP process must be developed by 2016 to meet a more stringent 2008 federal 8-hour ozone standard, which identify additional reductions needed from mobile agricultural equipment with attainment required in 2032. More time is needed to develop a regulation proposal to address emissions from mobile agricultural equipment after 2017. As discussed in Section I.F., however, a near-term compliance schedule is not practical to consider at this time because the deployment of cleanest engine technologies (Tier 4 final) are not expected to be widely available in the agricultural sector until 2020.

Third, because Tier 4 final technologies in mobile agricultural equipment are not widely available now, requiring turnover prior to 2017 would result in a mobile agricultural equipment inventory that would not meet the needs for attainment in 2032. This would create a requirement for a second turnover of the fleet to Tier 4 final technologies when that equipment becomes available. Requiring the agriculture industry to turnover equipment twice will impose significant increased costs and is not necessary at this time because the voluntary incentive program agricultural equipment projects are meeting the 2007 SIP emission reduction goal.

Finally, to address the new 2008 federal standards and the additional post-2017 reduction needs, the process for a separate mobile agricultural equipment regulation has been started and scheduled for completion in 2015. This subsequent process will address both the remaining emission reduction needs for attainment in 2023 as well as provide additional reductions needed for the attainment in 2032.

D. Significant Adverse Economic Impact Directly Affecting Business-Evidence

This proposed regulation provides an administrative mechanism to ensure that incentive funded mobile agricultural projects implemented using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. The mechanism requires SJVAPCD and other air districts to use Carl Moyer Program Guidelines to implement the programs to ensure that emission reductions are surplus, quantifiable, enforceable, and permanent, and meet U.S. EPA guidance for SIP creditability of incentive funded projects. These programs, projects, and emission reductions, are occurring and will continue to occur, regardless of this proposed regulation. As such, this proposed regulation has no adverse economic impacts that directly affect business, including small businesses, and the Board has not identified any impacts or alternatives that would lessen any impacts on small

businesses. Even though other air districts may opt-in to this proposed regulation, the administrative mechanism similarly has no significant adverse economic impacts that directly affect business in those areas.

No alternatives considered by the Board would be more effective in carrying out the purpose for which the proposed regulation is proposed or would be as effective as or less cumbersome to affected private persons than the proposed regulation.

E. Justification for Adoption Regulations Different from Federal Regulations Contained in the Code of Federal Regulations

This proposed regulation does not differ from any federal regulations contained in the Code of Federal Regulations and therefore does not warrant justification for being different.

VII. SUMMARY AND RATIONALE FOR EACH REGULATORY PROVISION

This chapter describes the major provisions of the proposed regulation, including:

- Purpose
- Applicability
- Definitions
- Air District Requirements
- Incentive Program Guidelines
- Recordkeeping Requirements
- Project Monitoring Review Provisions
- Opt-in Provisions
- ARB Requirements

A discussion of the proposal's main elements and their rationale is provided below. The proposed regulatory text to adopt new article 4.1, section 2428, title 13, California Code of Regulations is contained in Appendix A.

A. Summary of Subsection 2428(a) Purpose

Subsection (a) of the proposed regulation provides an administrative mechanism to ensure that incentive funded mobile agricultural projects implemented by SJVAPCD using Carl Moyer Program Guidelines result in emission reductions that are eligible for SIP credit. While this proposed regulation establishes SIP eligibility, the emission reductions are quantified and granted credit to the SIP through a SIP amendment. Other air districts may opt-in to be eligible to receive SIP credit for emission reductions from voluntary incentive program mobile agricultural equipment projects if they notify the Executive Officer and follow the proposed requirements.

B. Rationale for Subsection 2428(a) Purpose

This subsection is needed for SJVAPCD and other air districts that opt-in to be eligible to receive SIP credit for off-road mobile agricultural equipment projects that are paid for following the Carl Moyer Program Guidelines. Furthermore, emission reductions achieved will assist in meeting the 2007 SIP goal of achieving 5 to 10 tons per day of NOx reductions and accelerate clean air quality progress.

C. Summary of Subsection 2428(b) Applicability

Subsection (b) of the proposed regulation applies to emission reductions achieved in the San Joaquin Valley from voluntary incentive program mobile agricultural equipment projects administered or implemented by ARB and SJVAPCD using Carl Moyer Program Guidelines. Other air districts may opt-in to the proposed regulation.

D. Rationale for Subsection 2428(b) Applicability

This subsection is needed to define that the proposed regulation applies to SJVAPCD and to other air districts that opt-in.

E. Summary of Subsection 2428(c) Definitions

Subsection (c) of the proposed regulation provides definitions of the terms used in the regulation.

F. Rationale for Subsection 2428(c) Definitions

This subsection is needed to provide clarity and support for the requirements presented within the proposed regulation. Many of the definitions are unique to this proposed regulation, but where possible the definitions come from existing regulations and state and federal guideline documents.

G. Summary of Subsection 2428(d) District Requirements

Subsection (d) of the proposed regulation clarifies the responsibility of SJVAPCD, and other districts that opt-in, to fulfill the requirements of this proposed regulation.

H. Rationale for Subsection 2428(d) District Requirements

This subsection is needed for emission reductions from incentive-funded mobile agricultural equipment projects to be eligible to receive SIP credit.

I. Summary of Subsection 2428(e) Incentive Program Guidelines

Subsection (e) of the proposed regulation requires that SJVAPCD, and other air districts that opt-in, must use Carl Moyer Program Guidelines to administer and implement voluntary incentive program mobile agricultural equipment projects to result in emission reductions that are eligible for SIP credit. Approved Carl Moyer Program Guidelines include the *2011 Carl Moyer Program Guidelines*, approved April 28, 2011; the *2008 Carl Moyer Program Guidelines*, approved March 27, 2008; and the *2005 Carl Moyer Program Guidelines*, approved November 17, 2005.

J. Rationale for Subsection 2428(e) Incentive Program Guidelines

This subsection is needed to provide the Carl Moyer Program Guidelines that SJVAPCD and other air districts that opt-in must use for programs that they seek to be eligible to receive SIP credit.

K. Summary of Subsection 2428(f) Recordkeeping Requirements

Subsection (f) of the proposed regulation requires that SJVAPCD and other air districts that opt-in must follow Carl Moyer Program Guidelines requirements to keep and maintain documents created or used for incentive-funded mobile agricultural

equipment projects that receive SIP credit. Such records must also be made available for public review, consistent with the California Public Records Act and other related requirements.

L. Rationale for Subsection 2428(f) Recordkeeping Requirements

This subsection is needed to ensure the records and documents are properly kept and maintained and to ensure that they are available for public review.

M. Summary of Subsection 2428(g) Project Monitoring Provisions

Subsection (g) of the proposed regulation requires that SJVAPCD and other air districts that opt-in must monitor the voluntary incentive program mobile agricultural equipment projects per Carl Moyer Program Guidelines requirements. These requirements verify and ensure that projects are surplus, quantifiable, enforceable, and permanent throughout the life of the contract. The proposed regulation also requires SJVAPCD and other air districts that opt-in to allow ARB to monitor the projects reported.

N. Rationale for Subsection 2428(g) Project Monitoring Provisions

This subsection is needed to ensure that expected emission reductions are achieved and are implemented in a manner consistent with Carl Moyer Program Guidelines, U.S. EPA Integrity Elements, and State law.

O. Summary of Subsection 2428(h) Opt-in Provisions

Subsection (h) of the proposed regulation allows air districts other than the SJVAPCD to opt-in to the proposed regulation. To opt-in, air districts must notify the ARB Executive Officer in writing and comply with the requirements of the proposed regulation to ensure that emission reductions from voluntary incentive program mobile agricultural equipment projects are eligible to receive SIP credit. In addition, the air district must adopt a local rule that meets the requirements of this proposed regulation and submit the local rule to U.S. EPA for approval.

P. Rationale for Subsection 2428(h) Opt-In Provisions

This subsection is needed to provide the steps necessary for air districts other than SJVAPCD to opt-in to the proposed regulation.

Q. Summary of Subsection 2428(i) ARB Requirements

Subsection (i) of the proposed regulation requires ARB to annually report to U.S. EPA by November 30 the participating air districts and the programs, projects, and project data they report to ARB per Carl Moyer Program Guidelines.

R. Rationale for Subsection 2428(i) ARB Requirements

This subsection is needed to provide the requirements and date for ARB to report to U.S. EPA the districts, programs, projects, and project data subject to the regulation.

VIII. PUBLIC PROCESS FOR DEVELOPMENT OF PROPOSED ACTION (PRE-REGULATORY INFORMATION)

This section describes the public process conducted by ARB during the development of the proposed regulation. ARB conducted three sets of public workshops to present proposals and to solicit public input. All of the Sacramento workshops were webcast to increase participation.

The first set of public workshops was held on September 6, 2012, September 18, 2012, and October 4, 2012, in Fresno, Sacramento and Redding, respectively. These workshops were kick-off workshops on the overall statewide off-road mobile agricultural equipment regulatory strategy. The Fresno workshop was also video telecast to Modesto and Bakersfield in order to reach more stakeholders. At these workshops, staff provided background information on the need for emission reductions from mobile agricultural equipment, an update on the development of the emissions inventories for mobile agricultural equipment, the data sources that were currently being utilized, the role of the economic analysis, and the next steps of the regulatory process.

The second set of public workshops was held on March 14, 2013 and March 15, 2013, in Fresno and Sacramento, respectively. The Fresno workshop was also video telecast to Modesto and Bakersfield. At these workshops, staff provided a proposal for a two-step approach for the regulatory strategy for mobile agricultural equipment, draft results from the *In-Use Mobile Agricultural Equipment Regulation Survey,*[11] the proposed regulation *State Implementation Plan Credit from Mobile Agricultural Equipment*, and the timeline for the regulatory development process.

The third public workshop was held on July 9, 2013 in Fresno with video telecast to Modesto and Bakersfield, and was webcast via the internet. At this workshop, staff presented the draft regulatory language for the proposed regulation for *State Implementation Plan Credit from Mobile Agricultural Equipment*.

Notices of the workshops were sent via the electronic In-Use Mobile and Stationary Diesel Agricultural Engines list serve and the general Mobile Source Mailings list serve. ARB also posted notice of the workshops and the workshop materials on its In-Use Off-Road Mobile Agricultural Equipment Regulation webpage.[12]

In addition to the public workshops, ARB staff worked extensively with the agricultural industry over the past few years to establish a better understanding of mobile agricultural equipment in California, their operating characteristics, and the impacts from equipment on emissions statewide and regionally. During the past year, ARB regulatory, inventory, and economic staff have had numerous meetings with farmers, custom operators, first processors, equipment and engine manufacturers, and industry organizations throughout California. ARB staff toured grower's fields, dairies,

[11] http://www.arb.ca.gov/ag/agtractor/agsurvey.htm
[12] http://www.arb.ca.gov/ag/agtractor/agtractor.htm

manufacturing plants, packing facilities, and feed lots. The tours covered a wide array of commodities, including: nuts, fruit (avocado, peaches, pomegranate, grapes, etc.), cotton, hay, rice, vegetables (potatoes, carrots, onions, etc.).

Staff also met with the California Farm Bureau and local Farm Bureaus throughout the state often attending their monthly meetings. For the past two years, staff attended the world's largest annual agricultural exposition, the World Ag Expo in Tulare. In the second year, ARB staff provided materials in an outreach booth in order to address stakeholders concern and receive their input. In addition to meeting with industry stakeholders, staff also held meetings with U.S. EPA, SJVAPCD and various environmental and health advocacy organizations. This resulted in valuable input and feedback that ultimately helped guide the direction of the proposed regulation for mobile agricultural equipment.

For additional information on public comments received during ARB's process to develop this proposed action see Appendix D.

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