

## **Appendix D**

### **Summary of Public Comments and ARB Responses**

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## **I. Introduction**

In 2012, California Air Resources Board (ARB) staff began the public regulatory development process for mobile agricultural equipment. A primary focus of this process was for staff to gain a thorough understanding of California's agricultural industry, its economic impacts on the State, and how the agricultural industry uses, maintains, and replaces mobile agricultural equipment. In addition, staff's efforts included soliciting public comments from stakeholders and other interested parties. Staff also created a dedicated webpage to provide public information of the background for the proposed regulation, timeline of events, notice of public workshops, documents, links to other relevant websites, staff contact information, and a list-serve signup to receive email notifications. ARB also held a series of public workshops to present information about the proposed regulation, inform stakeholders on the progress of the regulation development, and provide a forum for the public to communicate their ideas, comments, and questions regarding the proposed regulation.

A Final Statement of Reasons for Rulemaking (FSOR) will follow and update the Initial Statement of Reasons (ISOR) to which this document is an appendix. The FSOR will provide summaries of the written and oral comments received during the 45-Day and 15-Day Comment Periods and ARB's responses to those comments.

### **A. Workshops**

The following is a list of public workshops held including the date of workshop, topic summary, and location.

1. Initial workshop series to notify the public and receive input on effectively achieving emission reductions from mobile agricultural equipment and include discussion of the emissions inventory, economic analysis, expected timeline, and public process for rule development.  
Date: September 6, 2012  
Location: San Joaquin Valley Air Pollution Control District offices: main meeting in Fresno, simulcast to Bakersfield and Modesto.
2. Repeat of initial public workshop with webcast.  
Date: September 18, 2012  
Location: Sacramento
3. Repeat of initial public workshop.  
Date: October 4, 2012  
Location: Redding
4. Second series of workshops held for public input on California's air quality goals and the need for emission reductions from mobile agricultural equipment. Topics discussed include: draft survey results from mobile

agricultural equipment, assessment of local, State, and federal financial incentive programs, the development of a mechanism to ensure local, State, and federal incentive program reductions are creditable to the State Implementation Plan (SIP), and the availability of cleaner technologies (tier 4 final) in mobile agricultural equipment.

Date: March 14, 2013

Location: San Joaquin Valley Air Pollution Control District offices: main meeting in Fresno, simulcast to Bakersfield and Modesto.

5. Repeat of second public workshop with webcast.

Date: March 15, 2013

Location: Sacramento

6. Third workshop held for public input on draft proposals for the regulation.

Date: July 9, 2013

Location: San Joaquin Valley Air Pollution Control District offices: main meeting in Fresno, simulcast to Bakersfield and Modesto. In addition, the workshop was webcast via the internet.

## **B. During this Rulemaking**

Actions taken during this rulemaking include gathering data about the California agricultural industry and the mobile agricultural equipment used by the industry and understanding how the equipment contributes to air quality problems in California. Staff communicated with and listened to stakeholders about their views and concerns about these issues. Comments and questions were received from the public throughout this process, through conversation during tours of farms and ranches, received through email and by letters, and during public workshops.

## **II. Summary of Comments, Questions, and Agency Responses to the Proposal**

The following is a summarization of the comments and questions received from stakeholders during the rulemaking process since March 2012.

### **A. Regarding Emission Reductions from Mobile Agricultural Equipment**

Staff received a number of comments (listed below) regarding whether there exists a need for emission reductions from mobile agricultural equipment in all areas of California or just the San Joaquin Valley.

- Mobile agricultural equipment should only be regulated in areas of the state where they contribute to a significant air pollution problem.

- A mobile agricultural equipment regulation should apply to all regions of the State to avoid placing certain areas in a competitive disadvantage.
- The percentage that mobile agricultural equipment contributes to the air pollution problem in the San Joaquin Valley and in other areas of the State is very small.
- The mobile agricultural equipment fleet causes air pollution and should be regulated like other mobile sources in California.
- Growing crops produce air quality benefits that should be measured and could balance emissions from mobile agricultural equipment.

RESPONSE:

The *Proposed Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment* is designed to address the 2007 8-Hour Ozone SIP goal of achieving 5 to 10 tons per day emission reductions of nitrogen oxides (NO<sub>x</sub>) in the San Joaquin Valley by providing an administrative mechanism to be eligible to receive SIP credit. The 2007 SIP did not identify emission reduction goals for mobile agriculture equipment for areas other than the San Joaquin Valley. In the San Joaquin Valley, mobile agricultural equipment plays a significant role in the air quality challenges, accounting for over 13 percent of the total NO<sub>x</sub> emissions from mobile sources.<sup>1</sup>

The proposed regulation is an administrative mechanism that concerns programs, projects, and emission reductions that are already occurring and will continue to occur regardless of whether the proposed regulation is adopted. As such, the proposed regulation will not place the San Joaquin Valley in a competitive disadvantage with other areas of the State. The competitive position of other California air districts that opt-in to this proposed regulation will similarly not be affected.

A new 2016 ozone SIP process, based on more stringent 2008 federal standards for 8-hour ozone, will identify additional reductions needed from mobile agricultural equipment with attainment required in 2032. To address the new 2008 federal standards and the additional reduction needs that may result during the development of the new SIP, a second mobile agricultural equipment regulation process will include accelerated fleet turnover as one of the strategies to be considered. 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.

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<sup>1</sup> California Emissions Projection Analysis Model (CEPAM)  
<http://outapp.arb.ca.gov/cefs/norcal2012pm25sip/>

## **B. Regarding Inventory of Mobile Agricultural Equipment**

Staff received a number of questions and comments (listed below) regarding the inventory of mobile agricultural equipment in California and particularly in the San Joaquin Valley.

- What is the inventory of mobile agricultural equipment in California and other areas in the State?
- How did ARB develop the inventory?
- What is the inventory comprised of in terms of age, use, size, and other factors?
- What is the natural turnover of the fleet?
- Aren't the emission reductions that are being achieved through natural turnover of the mobile agricultural equipment fleet enough?
- How does ARB model what happens to the inventory if a regulation is enacted?
- How will this regulation affect the inventory?
- What happens if the inventory is significantly incorrect?
- How do the incentive program mobile agricultural equipment projects being done in the San Joaquin Valley affect the inventory?

### **RESPONSE:**

An inventory is a representation of the emissions from mobile agricultural equipment in the State as a whole and within regions of the State. Information on equipment characteristics is combined with emissions measurements to produce an emissions inventory. In 2009, ARB, in conjunction with California State University Fresno and the agriculture industry, began a survey of how mobile agricultural equipment is used, maintained, and replaced. Mobile agricultural equipment is defined as diesel-fueled, self-propelled, off-road equipment or vehicles with greater than 25 horsepower that are used in agricultural operations. The results of the survey were presented during the March 14 and 15, 2013, workshops held for this regulation. The full presentation is available on the ARB website, <http://www.arb.ca.gov/ag/agtractor/workshop/wspres03142013.pdf>.

The results of the survey show a total of 151,900 pieces of mobile agricultural equipment operating in California, including 77 percent tractors, 10 percent harvesters, 6 percent loaders, and 7 percent "other." By sector, producers have the largest population of equipment in the State, representing about 71 percent of the total. Custom operators represent about 25 percent, and the remaining 4 percent are made up of rental, first processor, and logging operations.

Turnover in this context is defined as the normal process the fleet of mobile agricultural equipment undergoes as used equipment is replaced or scrapped and newer equipment is purchased. So called "natural" turnover is how this process occurs without regulatory requirements that result in more rapid turnover. Since 2008, natural turnover in the San Joaquin Valley has been enhanced by over 2,500 pieces of mobile agricultural equipment that have been replaced through the several voluntary incentive programs in the San Joaquin Valley. Staff estimates that these

and future projects resulting from continued funding will meet the SIP goal of NO<sub>x</sub> reductions of 5 to 10 tons per day by 2017. The proposed regulation will not affect natural turnover in the San Joaquin Valley, or other air districts that opt-in, because the incentive programs, projects, and emission reductions are occurring and will continue to occur regardless of this proposed regulation.

### **C. Regarding Turnover of Equipment to Cleaner Technology**

Staff received a number of comments (listed below) regarding why the turnover of equipment to cleaner technology should or should not be required.

- The agriculture industry should be required to turn over the entire fleet to cleaner equipment now and to the cleanest equipment once it becomes available.
- What constitutes “cleaner technology” and “cleanest technology?”
- New technologies such as particulate filters and other emission reduction technologies are inappropriate for agriculture due to safety and cost issues.
- New technologies have higher operating temperatures that increase fire danger and insurance costs.
- New mobile agricultural equipment requires larger engine compartments that cause safety issues due to hindered sight lines for operators, can damage crops or orchards, and may not be feasible to produce and therefore not made available for purchase due to these reasons.
- Because new mobile agricultural equipment requires larger engine compartments, this may require changes in how crops are planted and grown.
- New mobile agricultural equipment have increased costs due to complex engine management systems that cost more to repair, take longer to repair, are harder to diagnose, require factory or dealer mechanics to repair, and may disrupt operations during critical periods of harvest or weather events.
- Older equipment must be allowed as backup for when newer equipment fails.
- ARB should not require turnover to the cleanest equipment until it is widely available and thoroughly field tested.
- Many technologies exist that can reduce emissions from existing mobile agricultural equipment but are not certified by ARB and cannot legally be used.
- ARB should help people get rid of the oldest equipment rather than require people to buy the newest equipment.
- Replacement equipment for specialized mobile agricultural equipment may no longer be available at any cost or may be cost prohibitive to custom manufacture.
- Specialized equipment should be exempt from regulation due to low usage and high costs.

#### **RESPONSE:**

Staff considered a regulation to require turnover to new technology that would 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 ultimately did not propose such a regulation 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 SIP emission reduction goal of 5 to 10 tons per day of NOx reductions by 2017.

Second, a new 2016 ozone SIP process, based on more stringent 2008 federal standards for 8-hour ozone, will identify additional reductions needed from mobile agricultural equipment with attainment required in 2032. A compliance schedule, however, 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 now would result in a mobile agricultural equipment inventory that would not meet the needs for attainment in 2032. This would create a need to require 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 reduction needs that may result during the development of the new SIP, a second mobile agricultural equipment regulation process will include accelerated fleet turnover as one of the strategies to be considered. This subsequent process will address both the remaining emission reduction needs for attainment in 2032 as well as provide additional reductions needed for attainment in 2032.

#### **D. Regarding Economic Impacts**

Staff received a number of questions and comments (listed below) regarding economic impacts of the *Proposed Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment*.

- A rigorous, balanced, and complete economic analysis is needed to study the potential impacts of a regulation on food prices, consumers, individual farmers and ranchers, and the California agriculture industry as a whole.
- The agriculture industry in California is extremely complex and economic impacts of a regulation will be difficult to accurately predict.

- ARB should consider the cumulative and growing economic impact of all the regulations that California agricultural industry faces other than ARB regulations, such as water, pesticide, and labor regulations.
- Most farmers, ranchers, and dairy operators cannot afford to purchase new equipment, even with help from incentive programs.
- The economics to replace a tractor that doesn't operate for very many hours doesn't make sense, most farmers can't afford to replace low operation equipment, and low operation equipment can't receive incentive funding because it does not meet cost-effectiveness requirements.
- Regulation causes equipment that will become noncompliant in the future to lose value immediately.
- Noncompliant equipment becomes worthless, making the purchase of new equipment even more difficult.
- A mobile agricultural equipment regulation will increase the competitive disadvantage that California already faces with the rest of the country and the world.
- Extra costs imposed on farmers cannot easily be passed along to consumers.

#### RESPONSE:

These questions are most relevant to the longer-term development process for the 2016 SIP and the next mobile agricultural equipment regulation development. The *Proposed Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment* causes no administrative costs on the San Joaquin Air Pollution Control District (SJVAPCD), other air districts, and ARB.

### **E. Regarding Incentive Programs**

Staff received a number of questions and comments (listed below) regarding the mobile agricultural incentive programs that underlay the *Proposed Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment*.

- There is not enough incentive funds available to help everyone who needs help to turn over mobile agricultural equipment.
- Relying upon incentive program emission reductions doesn't provide enough emission reductions.
- Incentive funds typically go to the largest operations that don't really need the help.
- Incentive funds typically go to replace mobile agricultural equipment that has the highest use, but most of the oldest/highest polluting equipment has lower usage.
- The process to apply and receive incentive funds is complex and lengthy which discourages all but the largest operations from participation.
- Incentive program contractual requirements, including usage requirements, discourage smaller operations from participating.
- Many who have applied for incentive funding but turned down will not try again.

- Specialized equipment that gets low hours of operation may not qualify for incentive programs.
- Incentive funds should go to manufacturers or dealers to make mobile agricultural equipment more affordable for everyone rather than to purchasers.
- U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) funded projects should be recommended as playing a role in achieving emission reductions that will count towards meeting SIP credit.

**RESPONSE:**

This regulation is designed to complement SJVAPCD's Rule 9610, adopted by the SJVAPCD Board on June 20, 2013, and recognizes emission reductions achieved through incentive programs administered by SJVAPCD, NRCS, and ARB. In general, this regulation imposes certain minimum administrative and implementation policies and procedures for incentive programs to be eligible to receive SIP credit, but does not otherwise affect the programs.

ARB recognizes the importance of incentive programs for achieving emission reduction goals through accelerating the use of cleaner technology. The existing incentive programs and projects have been producing emission reductions since 2008, and these and subsequent incentive program projects will continue regardless of this regulation. ARB will continue to work cooperatively with stakeholders and other government agencies to identify additional sources of funding for the industry.

**F. Regarding Enforcement**

Staff received comments (listed below) regarding enforcement of the *Proposed Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment*.

- Enforcement by ARB should protect and encourage those who comply or attempt to comply by taking action on those who refuse to comply.
- People who simply can't afford to comply shouldn't be made criminals.
- Enforcement should be fair.
- How does the public ensure that emission reductions are occurring?
- Farmers don't want to register their mobile agricultural equipment because they fear it puts them "in the system" and makes them more vulnerable to enforcement.

**RESPONSE:**

These comments are most relevant to the longer-term development process for the 2016 SIP and the next mobile agricultural equipment regulation development. This regulation, however, requires SJVAPCD and other air districts to monitor and enforce the projects as required in the Carl Moyer Program Guidelines. 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.

## **G. General Comments on this Regulation**

Staff received a number of general questions and comments (listed below) regarding the *Proposed Regulation for State Implementation Plan Credit from Mobile Agricultural Equipment*.

- A mobile agricultural equipment regulation should be coordinated and commence later than other ARB regulations such as the Truck and Bus Rule and the Off-Road Compression Ignition Regulation.
- Compliance options should be flexible and provide plenty of time for the regulated community to take action to comply.
- A regulation should be simple to understand.
- A regulation should have ample and effective outreach to ensure that everyone who should know about it does and has time to comply.
- ARB should provide a low-usage exemption for mobile agricultural equipment. (Suggested thresholds range from between 50 to 600 annual hours.)
- Tier 3 and cleaner equipment should be exempt to regulation until 2032.
- There should be a trade-up program so that cleaner equipment remains in the inventory and the oldest/dirtiest is removed.
- All equipment should have a useful life before they are affected by regulation. (Suggested useful lifespans ranged from 15 to 30 years.)
- Regulation should focus on removing uncontrolled and Tier 1 equipment.

### **RESPONSE:**

These comments are not germane to the proposed regulation but pertain to equipment regulations in general and are most relevant to the development process for the 2016 SIP and the next mobile agricultural equipment regulation.