VIA ELECTRONIC SUBMITTAL

October 23, 2013

Ms. Mary Nichols, Chair

California Air Resources Board

1001 I Street

Sacramento, CA, 95814

Dear Chair Nichols,

This letter, submitted on behalf of Earthjustice, Fresno Metro Ministry, Central Valley Air Quality (CVAQ) Coalition Watchdog Committee, Regional Asthma Management and Prevention (RAMP), Natural Resources Defense Council, and Coalition for Clean Air, details our extreme disappointment with the California Air Resources Board’s proposed regulation for “State Implementation Plan Credit from Mobile Agricultural Equipment.” California, particularly the San Joaquin Valley, has no strategy for actually attaining the ozone national ambient air quality standards (“NAAQS”), and agricultural equipment is a significant source of emissions responsible for this pollution. In 2007, ARB committed to tackling this largely unregulated source by pursuing an In-Use Off-Road Mobile Agricultural Equipment Regulation. Your staff, however, are breaking that commitment, proposing now to ask the Board to approve a measure that is an unlawful accounting scheme to justify further delay of these needed emission reductions. To make matters worse, the Staff Report misleads the Board and the public about the justification for this proposal. Contrary to the assertions in the Staff Report, this proposal does nothing to address the pollution problems of the San Joaquin Valley, and is inconsistent with the transformative change that this Board knows is necessary to meet national air quality obligations. We therefore respectfully ask that the Board reject this proposal, and instead direct staff to expeditiously prepare regulations to protect San Joaquin Valley residents from polluting agricultural equipment.

**Background**

Farm equipment is a significant contributor to high ozone pollution in the Valley that endangers public health. Approximately 95% of this sector is comprised of diesel-fired agricultural tractors. The emissions inventory in the 2007 8-hour ozone plan for the San Joaquin Valley estimated that NOx emissions from farm equipment would amount to 38.5 tons per day (tpd) in 2014. To put this figure into context, the District needs to reduce NOx emissions by 85 tons per day to fill the “black box” in the 2007 8-hour ozone plan. The 2014 estimate of farm equipment emissions represents 45% of the emission reduction gap facing the Valley.

Farm equipment is such a significant driver of ozone pollution in the Valley because of the age of equipment in operation on farms. The Valley’s 2007 8-hour ozone plan estimated that in 2008 there would be 74,474 diesel-fired agricultural tractors in use.[[1]](#footnote-1) Of these, 25% would have Tier 0 engines, 28% would have Tier 1 engines, and 31% would have Tier 2 engines.[[2]](#footnote-2) Tier 0 engines do not have any emission controls, and are the oldest and dirtiest engines. Tier 0 engines are at least 17 years old (manufactured prior to 1996), but many are decades older. While other sectors comply with more and more stringent regulations and implement new emissions controls to help reduce ozone pollution in the Valley, agricultural equipment that is decades old continues to operate without any controls or any regulation.

In the *2007 State Strategy for California's State Implementation Plan for Federal PM2.5 and 8-Hour Ozone Standards* (“2007 SIP”), ARB committed to bringing an in-use agricultural equipment regulation to the Board by 2010 that would reduce emissions in the San Joaquin Valley in 2014, 2020, and 2023. 2007 SIP at 120. In 2012, ARB staff began public outreach on an agricultural equipment regulation as committed to in the 2007 SIP. During the initial phases of rule development in 2012, staff held public workshops and engaged in discussions with the regulated community as well as environmental and health advocates. The rule was described to workshop attendees as a regulation that would impact all in-use off-road mobile agricultural equipment in the State. The regulation would draw on an extensive survey of agricultural equipment conducted by ARB, to ensure that regulations were appropriate and would deliver the necessary emissions reductions. In the workshops, staff received pushback from agriculture industry representatives, who claimed that regulation would bankrupt smaller farmers and require multiple rounds of new equipment purchases.

But rather than exploring the root of these concerns and the regulatory options for addressing them, staff simply abandoned new standards. Staff’s new proposal is to forgo control requirements and instead to take credit for voluntary activities already underway. As described below, the proposed credit scheme does not comply with the Clean Air Act and is based on flawed and misleading policy claims.

**The San Joaquin Valley Suffers Urgent Public Health Impacts from Air Pollution**

As you know, diesel pollution including that from agricultural engines constitutes a major public health hazard through the complex mixture of air pollutants including fine particulate matter (PM), nitrogen oxides (NOx), volatile organic compounds (VOCs), sulfur oxides, and a wide range of toxic air emissions. Numerous studies have documented a wide range of adverse health impacts from exposure to these pollutants including increased rates of: Cardiovascular disease, such as atherosclerosis, heart attacks, respiratory illness including asthma, emergency room visits, adverse birth outcomes and premature death. Of particular concern are the impacts of diesel pollution on asthmatics and the fact that significant exposure to diesel pollution could actually cause health people to develop asthma.

In the San Joaquin Valley, 647,000 people (or 16.7%) of the population have been diagnosed with asthma. For some particularly vulnerable groups, the asthma prevalence is even higher. For example, children between 12-17 years old have an asthma prevalence of 19.5% and 22.8% of African Americans living in the San Joaquin Valley have been diagnosed with asthma. Among people in the SJV with asthma, 16.8% had an emergency room or urgent care visit for asthma within the past year.

Agricultural diesel engines are also major contributors to ozone pollution, as discussed above. Ground level ozone smog can cause irreversible changes in lung structure, eventually leading to chronic respiratory illnesses, such as emphysema and chronic bronchitis. In fact, recent research funded in part by your agency shows that chronic exposure to ozone can significantly increase risk of death from ischemic heart disease. (Jerrett et. al., 2013)

**The Clean Air Act Does Not Allow SIP Credits for Unenforceable Measures**

Instead of actually trying to reduce emissions, the new proposal seeks to get credit for existing voluntary incentive programs in order to meet the 5 to 10 ton NOx emission reduction commitment of the 2007 SIP. *See* Staff Report at 1 and 7. The Staff Report acknowledges that to receive SIP credit, emission reductions must be permanent, quantifiable, enforceable, and surplus. Staff Report at 11. The Staff Report, however, provides the Board and the public no explanation of what these requirements mean, and only conclusory assertions that the proposal satisfies these requirements.

The Board should not be misled. There has been no determination that these programs satisfy the Clean Air Act’s requirements for enforceable emission reductions. The Staff Report cites to a 2010 Statement of Principles signed by various agencies to signal a *desire* to provide credit for these voluntary agricultural equipment programs, *see, e.g.*, Staff Report at 2, but this statement signed by mid-level agency staff has zero legal weight and provides no basis for claiming that the requirements of the Clean Air Act will be satisfied by this proposal. Similarly, the repeated references to San Joaquin Valley Rule 9610 are unhelpful because that rule suffers from the same legal defects outlined below and cannot be lawfully approved by EPA.

Staff’s proposed rule runs counter to EPA’s well-established interpretations of the Clean Air Act enforceability requirements for SIP measures. Congress gave states broad discretion to formulate strategies for achieving and maintaining compliance with national ambient air quality standards. At the same time, however, Congress was not willing to let states merely “promise” to protect air quality. Section 110(a)(1) requires states to formulate specific plans for meeting and maintaining compliance with those standards and section 110(a)(2) outlines the minimum mandatory requirements for such plans. Section 110(a)(2)(A) provides that each implementation plan must “include enforceable emission limitations and other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights) . . . as may be necessary or appropriate to meet the applicable requirements of this chapter . . . .” EPA has made clear that all such measures must be “enforceable”:

The amended provision [in section 110(a)(2)(A)] authorizes SIP’s to contain certain nontraditional techniques for reducing pollution – economic incentives, marketable permits, and auctions of emissions rights. The EPA reads this language to require even these other means of achieving reductions to be enforceable.

74 Fed. Reg. 13498, 13556 (April 16, 1992); *see also* EPA, “Improving Air Quality with Economic Incentive Programs,” at 35-36 (Jan. 2001) (“EIP Guidance”) (describing requirement for enforceability of economic incentive programs relied upon in SIPs).

EPA has repeatedly explained that to be “enforceable,” EPA and citizens must have the ability to bring enforcement actions to assure compliance:

SIP provisions that operate to preclude enforcement by the EPA or citizens for violations, whether through impermissible exemptions or other SIP provisions that function to bar effective enforcement, not only undermine the enforcement structure of the CAA in a technical sense, but undermine effective enforcement in reality. Congress provided states, the EPA, and citizens with independent statutory enforcement authority to ensure compliance with CAA requirements. By empowering states, the EPA, and citizens to make their own enforcement decisions with respect to violations, the CAA provides deterrence and helps to assure better source compliance.

EPA, Memorandum to Docket for Rulemaking, “State Implementation Plans: Response to Petition for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction” (EPA-HQ-OAR-2012-0322) at 24 (Feb. 4, 2013) (hereinafter “2013 SSM Memo”); *see also* *id.* at 7 (“A core principle of the CAA is that by taking action to approve emission limitations into a SIP, the EPA thereby makes those emission limitations a federally enforceable component of the SIP that the state, the EPA, or citizens can thereafter enforce in the event of alleged violations.”); EIP Guidance at 35-36 (explaining that “required actions are enforceable if . . . [states] and the EPA maintain the ability to apply penalties and secure appropriate corrective actions where applicable, [and] [c]itizens can file suits against sources for violations.”). A state cannot claim SIP credit from control measures that shield pollution sources from independent enforcement actions.

The structure of the CAA reinforces EPA’s conclusion that Congress was not willing to rely on states alone to guarantee that the claimed emission reductions would occur or be enforced. *See* 78 Fed. Reg. 12,460, 12,484 (Feb. 22, 2013) (“The possibility for effective enforcement of emission limitations in SIPs is itself an important principle of the CAA, as embodied in CAA sections 113 and 304.”). Section 113 of the Act gives EPA authority to ensure compliance whenever any person is in violation of any requirement of the Act, and section 304 allows citizens to enforce the requirements of the Act. The Supreme Court has found that “Congress enacted 304 specifically to encourage citizen participation in the enforcement of standards and regulations established under this Act, and intended the section to afford citizens very broad opportunities to participate in the effort to prevent and abate air pollution.” *Pennsylvania v. Del. Valley Citizens’ Council for Clean Air*, 478 U.S. 546, 560 (1986).

This notion that SIPs must be built upon emission reductions that are capable of being enforced by EPA and citizens pervades a number of EPA’s policies regarding SIP approvability. For example, EPA will not approve control measures that include “director discretion” to define or redefine compliance requirements:

Another feature of the 1999 SSM Guidance . . . is the express statement concerning the interrelationship between SIP provisions and citizen-suit enforcement under CAA section 304. The EPA stated unequivocally that it:

does not intend to approve SIP revisions that would enable a State director’s decision to bar EPA’s or citizen’s ability to enforce applicable requirements. Such an approach would be inconsistent with the regulatory scheme established in Title I of the Clean Air Act.

2013 SSM Memo, at 12-13 (quoting Memo from Steven A. Herman, Assist. Admin. for Enf. and Compliance, to Regional Administrators, at 3 (Sept. 20, 1999) (“1999 SSM Memo”)).

EPA will also not allow SIPs to include state affirmative defenses that would foreclose EPA or other enforcement. S*ee id.* at 11 (“Even if a state elects to provide parameters for its own exercise of enforcement discretion, the decision of the state not to enforce cannot be construed to preclude enforcement by the EPA or citizens.”).

The proposed rule to take credit for agricultural equipment subsidy programs in the Valley does not satisfy these requirements because these emission reductions are not enforceable by EPA or citizens. EPA itself has explained that emission reductions, such as those achieved by the Valley’s incentive programs, that are “not enforceable against individual sources” are “voluntary” and are subject to a cap on SIP credit. *See* EPA, “Incorporating Emerging and Voluntary Measures in a State Implementation Plan,” at 1 and 5 (Sept. 2004). Emission reductions are “enforceable” against the source if:

 (1) They are independently verifiable;

 (2) Program violations are defined;

 (3) Those liable for violations can be identified;

(4) The District, State and EPA maintain the ability to apply penalties and secure appropriate corrective actions where applicable;

(5) Citizens have access to all the emissions-related information obtained from the source;

(6) Citizens can file suits against sources for violations; and

(7) They are practicably enforceable in accordance with other EPA guidance on practicable enforceability.

*Id.* at 3-4; *see also* EIP Guidance at 35-36.

The emission reductions that the proposal seeks to credit do not meet these criteria. The emission reductions are not independently verifiable because EPA and citizens can only rely on data submitted to, or collected by the District or ARB. EPA, in particular, has no authority to inspect these sources for compliance with the contracts between the District and the source. Nor does EPA have the ability to apply penalties or secure corrective actions against the sources. Finally, because the emission reductions are secured through contracts between the source and the District, compliance with those agreements cannot be enforced by the public or EPA. Indeed the District has discretion to modify these contracts and redefine violations without any EPA or public oversight. Such director’s discretion has repeatedly been rejected by EPA.

Contrary to the assertions of the Staff Report, there is no basis for claiming that the proposed rule satisfies the requirements of the Clean Air Act and enables ARB to meet its SIP commitment to provide 5 to 10 tons of creditable emission reductions. It may be that staff’s proposal “buys” delay while these legal issues are sorted out at EPA and in the courts, but commenters hope that the Board’s goal is not just to delay regulations but to find the best solution to the air pollution problems in the Valley. As discussed below, even setting aside these legal defects, the proposal should be rejected because it is not supported by a reasonable technical or policy rationale.

**Staff’s Rationale for the Proposed Rule is Misleading and Flawed**

The Staff Report offers the following arguments for not adopting regulations for agricultural equipment at this time:

*(1) If the incentive program approach is not approved, California would need to adopt additional regulations at a significant cost to businesses. Staff Report at 16.*

There is no basis in the Staff Report or accompanying materials for the claim that regulations would come at a “significant cost to businesses.” It is, of course, obvious that such an assessment cannot be made without knowing what the specific regulations would require or when. It is disingenuous to throw out these assertions without any analysis. What we do know is that many tractors in the Valley are Tier 0 or Tier 1 pieces of equipment (53% of the over 74,000 tractors). Even modest upgrades to these pieces of equipment could result in significant emission reductions depending on their operation. If they are operated regularly, the cost-effectiveness of an upgrade could be low compared to other emission reduction opportunities. If they are not operated regularly, retirement could be achieved without significant cost. Moreover, there is no reason that regulations cannot be coupled with subsidies to address specific economic impacts of concern. For that matter, there are a variety of options for tiering and scheduling regulations to address cost concerns. But staff offers only a baseless assertion that costs would exceed some undefined threshold considered “significant.” Commenters are not suggesting that these emission reductions will be free, but they may be among the cheapest emission reduction opportunities still available in the Valley. The impact on business depends on how the specific regulations and subsidies are structured. But the Staff Report considers none of this.

*(2) Staff estimates that the emission reductions that will be eligible for SIP credit as a result of the proposed regulation will help meet the 5 to 10 ton SIP commitment and accelerate air quality progress. Staff Report at 16.*

Notably absent from the Staff Report and accompanying materials is any calculation of the emission reductions that have or will be achieved by these subsidy programs. The Staff Report repeatedly states that the proposed rule “will help” meet the commitment, but does not provide the data or argument to support this claim, let alone the necessary conclusion that the SIP commitment “will be” met. This proposed regulation in the end is simply an accounting rule to enable the state to take credit for emission reductions already being achieved, but the rule does not provide any of the actual accounting. Staff is asking the Board to approve this regulation as satisfying its obligations under the 2007 SIP without showing the Board how this commitment will actually be met.

The notion that this accounting rule will actually “accelerate air quality progress” is absurd. This rule, as staff admits, does nothing to change the air quality picture in the Valley. The Staff acknowledge, “Because these administration requirements are already in use by SJVUAPCD and other air districts, they do not go above and beyond or add to the standard administrative activities that air districts perform regularly.” *See* Staff Report at 19 (“The mechanism itself does not generate additional emission reductions . . . .”). This regulation does not increase incentive funding nor does it alter the incentives of individual farmers to participate in the program. The regulation merely takes credit for programs that are already in place. Thus, the claim that air quality improvements will be accelerated is misleading and false.

More fundamentally, the repeated focus on the 5 to 10 ton SIP commitment is misleading because it ignores the much larger ozone problems in the Valley.[[3]](#footnote-3) The 2007 ozone plan for the Valley does not actually include a strategy for attaining the 0.08 ppm national ozone standard by 2023. Instead the plan identifies a need to identify another 85 tons per day of NOx reductions. To date, there has been no serious attempt to identify how the Valley will achieve those additional emission reductions. Agricultural equipment represents “low hanging fruit” because so many pieces of equipment are virtually uncontrolled. Thus, while this accounting exercise may provide a way to satisfy the minimum SIP commitment, it inexcusably delays needed emission reductions required to attain the 0.08 ppm standard. While staff may believe that such delay is useful for industry, it does not explain why this is appropriate from an air quality perspective or why staff could not deal with industry concerns through regulatory action now. Indeed, delaying regulatory action until we are closer to the 2023 deadline, actually limits the flexibility options available to the Board to fashion acceptable regulatory requirements.

The proposal here has no air quality improvement rationale to support it. The various suggestions in the Staff Report that this regulation will provide, let alone accelerate, air quality benefits are misleading to the Board and the public.

*(3) Staff estimates that the turnover from participation in the incentive programs is sufficient to meet the 2007 emission reduction goal of 5 to 10 tons by 2017. Staff Report at 23; Summary of Public Comments at D-23.*

As noted above, the materials provide no support for this conclusion. There is no explanation of the data or assumptions that have gone into this conclusion and thus no way for commenters to evaluate them. But as also noted above, even if this conclusion is true, and this rule will allow the Board to provide the accounting to show that the commitment is met, it ignores the bigger ozone problems facing the Valley and is not a legitimate policy choice if the Board is serious about dealing with the Valley’s ozone problem.

*(4) A near-term compliance schedule is not practical because the deployment of cleanest engine technologies (Tier 4 final) are not expected to be widely available in the agricultural sector until 2020. Staff Report at 23; Summary of Comments at D-9.*

This claim is again unsupported by any data. The Staff Report repeatedly uses careful (and misleading) language suggesting that Tier 4 equipment will not be introduced for “all” mobile agricultural equipment applications (Staff Report at 9), or Tier 4 equipment will not be “widely available” (id. at 23) or available for “all” power categories (id. at 14) until 2020. These are not the relevant issues. The main target for upgrades is tractors. Within this category, the availability of new equipment can be further assessed for each power category. The analysis should have explored the status of Tier 4 tractors of various sizes and could have targeted requirements for the largest categories where equipment is available now. The notion that equipment might not be “widely available” is also irrelevant. If the market for that equipment is in the Valley, then that is where that equipment will be made available.

It is also disingenuous to suggest that regulations could not be adopted now that could address the staged availability of Tier 4 equipment. Regulations can be structured to account for these issues. The conclusion also ignores the effect that regulations can have on the introduction and diffusion of technologies. Adopting regulatory requirements sends the market the signal that advancing innovation and availability will provide rewards.

The concern expressed here is that Staff does not want to require farmers to upgrade their equipment to Tier 3 or interim Tier 4 because Staff does not want to require multiple upgrades. Staff Report at 23. Again this is an issue that can be addressed in any regulatory requirement. What is disingenuous about this argument is that the current policy is to subsidize upgrades to Tier 3. Thus, staff has concluded it is reasonable to use public money to support these upgrades even though staff implies that future regulations will require this equipment to be replaced with Tier 4 equipment anyway. Certainly, staff is contemplating some flexibility for those farmers who voluntarily upgrade, so it makes no sense to suggest that similar options are not available to address upgrades required by law. Commenters note that this same rationale was used to delay national air toxics rules that would have required upgrades to subsidized agricultural pumps in the Valley. Staff is misleading the Board by suggesting that the regulatory approach would require multiple upgrades but the incentive approach does not. No matter how these upgrades occur, staff will find a way to avoid perceived unfairnesses. In the meantime, air quality and public health in the Valley will continue to suffer while staff waits for an acceptable time to require upgrades.

*(5) The process for a separate mobile agricultural equipment regulation has been started and scheduled for completion in 2015. Staff Report at 23.*

This argument is honest in that it communicates that the decision here was to delay regulation of this category. What is misleading, however, is the suggestion that this decision to delay control requirements justifies the decision to do nothing today. As noted above, there is no reason that regulation could not be adopted now that will address the unregulated pollution from this category. Staff broke its promise from 2007 to regulate, and we have no confidence that this new promise to kick the regulation “can” down the road will provide any different result. Moreover, even if we assume this regulation will happen, this delay has health consequences for the already hard-hit communities and farmworkers in the Valley, and staff has not explored or even acknowledged these consequences.

Delay, as noted above, also is bad policy because it will limit the options available to the Board in structuring acceptable requirements in the future as the Valley gets closer to its attainment deadline, and will further delay helpful market signals that would drive innovation and diffusion. Finally, to the extent staff believes that subsidies must be provided to support the upgrade of equipment, it is better to couple those available dollars with a regulatory strategy so that the limited funds can be spent wisely to address the regulatory requirements of greatest concern. By spending the money now and regulating later, opportunities for wise use of those funds will be wasted. Industry representatives have complained that commenters are opposed to these subsidy programs. This is simply not the case. The fact is that regulations must eventually be adopted if the Valley is going to attain the national ozone standards, and subsidy dollars will always be limited. The better policy – for both industry and the public – is to couple subsidy investment decisions with regulatory decisions to build the most effective and sensible strategies. Staff’s proposed regulation seems to be driven by political pressure not sensible policymaking.

**Conclusion**

For all of the above reasons, we urge the Board to reject the unlawful proposal, and to direct staff to adopt regulations that require equipment upgrades that actually move the state toward achieving air quality standards and climate goals. We are counting on you to provide urgently needed air quality improvements in the San Joaquin Valley, and agricultural diesel engines should be a core part of that effort.

Sincerely,



Paul Cort, **Earthjustice**

Azibuike Akaba, **Regional Asthma Management and Prevention (RAMP)**

Diane Bailey, **Natural Resources Defense Council**

Elizabeth Jonasson, **Coalition for Clean Air**

Jenny Saklar, **Central Valley Air Quality (CVAQ) Coalition Watchdog Committee**

Sarah Sharpe, **Fresno Metro Ministry**

1. The Staff Report estimates that there are approximately 121,000 tractors statewide. *See* Staff Report at 4 (noting that tractors represent 76% of the 160,000 pieces of agricultural equipment statewide). [↑](#footnote-ref-1)
2. The Staff Report provides no information to the Board or the public on the makeup of the existing agricultural equipment fleet. [↑](#footnote-ref-2)
3. It also ignores the fact that additional reductions from this category of equipment are necessary to meet national standards for fine particulate matter pollution in the Valley and the state’s greenhouse gas reduction goals. By refusing to acknowledge these problems, staff implies that it is okay for the Board to do nothing now because these other problems will be addressed somehow, sometime in the future. [↑](#footnote-ref-3)