



EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES  
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

Luis Olmedo  
10-5-1

May 26, 2010

VIA ELECTRONIC MAIL

Ms. Mary Nichols  
Chair  
California Air Resources Board  
P.O. Box 2815  
Sacramento, CA 95812

**Re: San Joaquin Valley Modifications to Agricultural Burning Requirements**

Dear Chair Nichols:

This letter is submitted on behalf of The California Food Project, Pesticide Watch Education Fund, Coalition for Clean Air, Fresno Metro Ministry, Tri-Valley CAREs, Medical Advocates for Healthy Air, TriCounty Watchdogs, Comite Civico de Valle, Inc., California Rural Legal Assistance Foundation, National Parks Conservation Association, Center on Race, Poverty and the Environment, California Communities Against Toxics, Sierra Club, and the Central Valley Air Quality Coalition's Watchdog Committee to urge the Board not to concur with the San Joaquin Valley Unified Air Pollution Control District's ("District") decision to postpone the agricultural burning bans required under S.B. 705 (Health & Safety Code § 41855.5).

It has been seven years since the Governor signed S.B. 705 into law to eliminate the air pollution caused in the San Joaquin Valley by open burning practices. And yet with this final phase of the District's actions to implement the law, half of the emissions of fine particulate matter ("PM2.5"), oxides of nitrogen ("NOx"), and volatile organic compounds ("VOC") caused by open burning will be left unabated. The District will allow burning to continue to add over 1,200 tons per year of PM2.5, 1,000 tons per year of NOx, and 1,100 tons per year of VOC to the Valley's filthy air. The District's actions meet neither the spirit nor the letter of S.B. 705, and it is ARB's responsibility to reject these attempts to avoid the required controls.

The May 6, 2010 "Staff Report on the San Joaquin Valley Smoke Management Program and Consideration of Modifications to Agricultural Burning Requirements" (hereinafter "ARB Staff Report") submitted to the Board recommending concurrence under S.B. 705, does a disservice to the Board. The ARB Staff Report does little more than parrot back the conclusions of the District without investigating any of the factual bases for them. The only new analysis offered is a cynical presentation of emissions data to claim that the emissions that will be exempted by

the District are of no concern. The Board should reject the Staff recommendations and require the District to prohibit the burning of the crops discussed below.

#### Summary of S.B. 705

In 2003, the State legislature, frustrated with the failure of the District's "smoke management system" to control air pollution from widespread open agricultural burning in the Valley, adopted an aggressive schedule to phase out the practice at all agricultural sources. Cal. Health & Safety Code §§ 41855.5 and 41855.6. Under the law, the District is to stop issuing permits for specific types of burning according to the following schedule:

- Commencing June 1, 2005, for field crops, prunings and weed abatement;
- Commencing June 1, 2007, for orchard removals; and
- Commencing June 1, 2010, for other materials, vineyard removals, and surface harvested prunings.

Cal. Health & Safety Code § 41855.5(a).

The law includes a very carefully tailored exception for addressing the need to burn certain diseased crops. Section 41855.5(d) directs the District to adopt rules by January 1, 2005 to regulate the burning of diseased crops. The rules are to provide for the issuance of a conditional crop burning permit on a case-by-case basis if *all* of the following criteria are met:

- (1) The fields to be burned are specifically described;
- (2) The applicant has not been cited for a burning violation in the last three years; and
- (3) The county agricultural commissioner has determined *all* of the following:
  - (i) A disease is present that will cause "substantial, quantifiable reduction in yield or poses a threat to the health of adjacent vines, trees or plants" during the current or next growing season;
  - (ii) There is no economically feasible alternative means of eliminating the disease other than burning.

Cal. Health & Safety Code § 41855.5(d). The burn permit must be limited to the identified diseased crop and cannot be transferred to any other individual. *Id.*

The only other mechanism for avoiding the burning prohibition deadline is through a postponement allowed under section 41855.6. This section allows the District to "postpone" the deadlines provided in section 41855.5(a) for any category of agricultural waste or crop if *all* of the following are satisfied:

- (1) The District determines there is no economically feasible alternative means of eliminating the waste;

- (2) The District determines that there is no long-term federal or state funding commitment for the continued operation of biomass facilities in the Valley or development of alternatives to burning;
- (3) The District determines that the continued issuance of permits will not cause or contribute to a violation of a national ambient air quality standard; and
- (4) The Board concurs with the District's determinations pursuant to this section.

Cal. Health & Safety Code § 41855.6.

### **The San Joaquin Valley Air District's Implementation of S.B. 705**

Since the first phase of prohibitions required in 2005, the District has used a variety of excuses to undermine the requirements of S.B. 705. The latest round of requirements are no different. In this final phase, the District was to ban burning of all vineyard removals, surface harvested prunings, and other materials such as diseased bee hives, brooder papers and deceased goats. Cal. Health & Safety Code § 41855.5(a) and (c). The District's requirements submitted for your concurrence, however, exempt burning for all vineyard removals, raisin trays, almond, walnut, and pecan prunings from orchards under 3,500 acres, prunings from any orchard less than 15 acres in size, and diseased beehives. The result is that over 90 percent of the emissions that should have been eliminated by this final phase of S.B. 705 will be allowed to continue. In addition to the massive exemptions in this final phase, the District has also decided to extend the exemptions adopted in earlier phases for 70 percent of rice stubble field burning, all burning of citrus, apple, pear and quince orchard removals, all burning of other orchard removals of less than 15 acres in size, and all burning of apple, pear and quince prunings.

The District uses different arguments to justify postponing the burning ban for the different categories. None of these arguments, however, satisfies the criteria for postponement provided in state law. California Health and Safety Code section 41855.6 allows the District to postpone the deadline for the burning ban only if it determines that "there is no economically feasible alternative" to burning these materials. The District either fails to assess "economic feasibility" at all, or applies a made-up test that has no relevance to the ability of the regulated industry to use alternatives to burning. This letter explains why the arguments for postponement do not meet the legal requirements of the Health and Safety Code.

### **The District's Economic Feasibility Analysis is Fundamentally Flawed.**

#### **1. The Test Applied to Determine Economic Feasibility is Arbitrary in the Extreme**

The District found that there were no economically feasible alternatives to the burning of many of the crop types that have been postponed or have yet to be phased out under S.B. 705, including citrus orchard removals, almond, walnut, and pecan prunings from orchards less than 3,500 acres, vineyard removals, and all orchard removals of 15 acres or less. In order to

conclude that the added costs of the alternatives to burning rendered these alternatives economically infeasible, the District applied a "10 percent of the crop category's net profits" test. See San Joaquin Valley Unified Air Pollution Control District, "Revised Proposed Staff Report and Recommendations on Agricultural Burning" at 1-4 (May 20, 2010) (hereinafter "District Staff Report"). Under this test, "If the cost of implementing the alternative exceeds ten percent of the crop category's net profit, District staff will recommend a temporary postponement of the burn prohibition for that specific crop/material." *Id.*

The fundamental defect in the District's "10 percent of profits" test is that it has no rational connection to whether an alternative is "economically feasible." Although "economic feasibility" is not defined in the California Health and Safety Code, the common usage of "feasible" is understood as "capable of being done or carried out." Merriam-Webster's Online Dictionary (2010), available at <http://www.m-w.com/dictionary/feasible>. "Feasible" is also defined in the California Environmental Quality Act ("CEQA") Guidelines as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."<sup>1</sup> 14 Cal. Code Regs. § 15364 (2007). Thus, the key question is whether an industry is *capable* of handling the costs of an alternative to burning.

It is not enough to show that a control will be expensive, or even that the costs might exceed the benefits. See, e.g., *American Textile Manufacturers Institute v. Donovan*, 452 U.S. 490, 519-20 (1981) (noting that Congress understands the difference between "feasible" and "cost-beneficial" and that the use of the former reflects a decision to impose the costs of control as a cost of doing business in order to protect public health.); see also *Uphold Our Heritage v. Town of Woodside*, 147 Cal.App.4th 587, 599 (Cal. App. 1 Dist. 2007) ("The fact that an alternative to the proposed project may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible." (quoting *Citizens of Goleta Valley v. Board of Supervisors*, 197 Cal.App.3d 1167, 1181 (Cal. App. 2 Dist. 1988)); *Maintain Our Desert Environment v. Town of Apple Valley*, 124 Cal.App.4th 430, 449 (Cal. App. 4 Dist. 2004) ("[e]conomic unfeasibility is not measured by increased cost or lost profit."). In *American Textile*, the Supreme Court upheld the Occupational Health & Safety Administration's ("OSHA") determination that its cotton dust workplace standard was "economically feasible" based on OSHA's finding that it was "within the financial capability of the covered industry."<sup>2</sup> 452 U.S. at 531 n.55. OSHA based this finding on its

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<sup>1</sup> ARB has cited to this CEQA Guideline in defining, "every feasible measure" for purposes of achievement of emissions reductions by stationary sources under the California Clear Air Act. See ARB, Identification of Performance Standards for Existing Stationary Sources - A Resource Document (ARB, 2001), <http://arb.ca.gov/ssps/ssps.htm>.

<sup>2</sup> OSHA's finding that the standard was "economically feasible" was based on a much more comprehensive economic analysis of the industry than that conducted by the District, including an estimate of the total compliance cost, an estimate of the total and annual economic impact on each sector of the industry, an output demand elasticity analysis, and consideration of the impacts on employment requirements, energy use, increased production costs and consequent

conclusion that the industry as a whole would not be threatened, although some marginal businesses may close as a result of adopting the standard. *Id.* at 531.

The “10 percent of the industry’s profits” test used by the District has no connection to whether each industry is “capable” of bearing the costs of control. It gives no indication of whether the industry will be threatened or whether sources will shut down. First, the 10 percent cutoff itself is meaningless. If an industry is highly profitable, a reduction of 10 percent of profits does not mean that it is no longer profitable (e.g., the difference between a 20 percent return and an 18 percent return does not mean that the industry is not capable of applying controls). Similarly, an industry that has extremely low profit margins will not necessarily be forced to shut down if those marginal profits are reduced by 10 percent (e.g., the difference between a 2 percent rate of return may not be meaningfully distinct from a 1.8 percent rate of return).

More importantly, the “10 percent of the industry’s profits” test created by the District does not mean profits will actually be reduced at all. The test does not attempt to assess how profits will in fact be affected. It is a simplistic comparison of costs to profits. The impact of these additional costs on profits depends on the ability of sources to raise their prices or lower their costs as a result of the regulation. In order to assess how the costs of control will affect an industry, the District must look at how those costs will impact production, employment, competition, and prices. None of these impacts can be determined from the proposed “10 percent” test.

That this test answers none of the basic questions necessary for evaluating economic feasibility should not be surprising given that the test is derived from one that ARB and the District have traditionally used as a standard for assessing whether a District rule will have “significant economic impacts.” *See* District Staff Report at 1-5. The test does not indicate whether an industry is “capable” of meeting a new requirement because this was never the purpose of the test. *Just because a rule may have a significant economic impact does not mean that it is economically infeasible.*

The ARB Staff Report misleadingly states that ARB has used a similar test “to decide if alternatives are economically feasible.” ARB Staff Report at 3. ARB and the District have historically used the “10 percent of the industry’s profits” test to show that the economic impacts will be *insignificant*. The 10 percent test is akin to a *de minimis* test for showing that a given rule will have no significant adverse impacts. It does not mean that impacts over 10 percent are significant, let alone that such impacts render the tighter controls economically infeasible.

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price increases by affected industries, capital requirements and capital financing problems, competition effects on profit and market structure, inflationary impact on consumers and the U.S. economy, and employment impact due to the contraction of output demand. *See American Textile*, 452 U.S. at 531-34.

The ARB and District Staff Reports reference the methodology prepared by Dr. Peter Berck of U.C. Berkeley. See ARB Staff Report at 3; District Staff Report at 1-5 (referencing Peter Berck, "Development of a Methodology to Assess the Economic Impact Required by SB513/AB969" 7 (ARB, Aug. 1995)). In that analysis, Dr. Berck explained that one way to look at whether a rule's economic impacts would be significant is to assess the impacts on an industry's ability to compete. See Berck at 7. One way to assess impacts on competitiveness is to look at whether the return on equity or investment might be reduced to the point that an industry would be better off moving its investments elsewhere. *Id.* at 5. As an example, Dr. Berck looked at the return on equity for three industries and compared the rates of return at the regional and national level. Citing to other studies, Dr. Berck noted that "there is considerable variation in the rates of return both within and between sectors" and that rates of return for most sectors varied between 9 and 15 percent. *Id.* at 7. Given this variability, Dr. Berck found that "a change in the rate of return of even a full percentage point may not have important deleterious effects for competitiveness. That size change is well within the natural variance from one industry to the next." *Id.* (emphasis added). As a result, Dr. Berck concluded that a "10 percent change in Return on Equity (i.e., a change from 10 percent return to a 9 percent return) as a threshold for finding no significant, adverse impact on either competitiveness or jobs seems reasonable or even conservative" because even larger impacts on return could be expected without negatively impacting competitiveness. *Id.* Far from concluding that impacts greater than 10 percent were significant, Dr. Berck concluded that such impacts on returns might not affect competitiveness or jobs at all. To then apply this threshold defining insignificant impacts to demonstrate economic infeasibility has no basis whatsoever.

## 2. The District's Application of the Profits Test is Arbitrary

Even if one were to accept this test for determining economic infeasibility, the District's oversimplified analysis would still need to be rejected due to the numerous defects in the way it is applied. For example, Dr. Berck notes that because profits and equity data are "after tax," the cost of compliance needs to be calculated "after tax" as well. *Id.* at 6. The District makes no attempt to account for tax implications of increased control costs. As Dr. Berck explained, "A \$10,000 additional expenditure, therefore, reduces net after-tax profits by only \$5,895." *Id.* Because the District makes no attempt to adjust its cost estimates to allow any analysis of how these costs will actually translate into lost return on equity or sales, the exercise is merely an "apples to oranges" comparison of two numbers that have no relationship to one another.

The District also makes a number of simplifying assumptions that undermine any claim that the rejected controls are truly economically infeasible. For example, the District uses a 10-year cost amortization schedule for vineyards and orchards when formulating the "cost to profits" ratio of alternatives to burning. This 10-year assumption has no rational basis and produces artificially high annual cost figures for the one-time expense of removing an orchard. The productive lifespan of vineyards and orchards is much longer than 10 years. Documents

submitted by the agriculture industry explain that “25 years is the standard production lifetime for a vineyard” and “the life of the [citrus] orchard is assumed to be 40 years.” See District Staff Report at Appendix H. Similar cost and return studies from the University of California Cooperative Extension show the expected life of almond, walnut, cherry, and pomegranate orchards to be 25 years, of pecan orchards to be 40 years, of nectarine and peach orchards to be 15 years, of olive orchards to be 40 - 60 years, and of fig orchards to be 50+ years. In fact, many of these crops do not reach their peak productive capabilities for several years, with citrus hitting its peak only after year 10 years. See District Staff Report at Appendix H. By using a 10-year cost amortization schedule and a 10-year net profit figure, the District artificially reduces the overall profitability of the crop while creating an inaccurately high annual cost for the one-time burn alternative that would be used when the orchard is removed.

Using citrus as an example, the District estimates that the 10 year net profit per average farm greater than 100 acres is \$3,167,489. See District Staff Report, Appendix E at E-21. The cost of the burn alternative for citrus orchard removals (grind and haul) per average farm greater than 100 acres is assumed to be \$326,064. *Id.* The District concludes, using its “10 percent of profits” test, that the cost is too high because it is 10.3% of the crop category’s ten-year net profits. However, if the District had instead used the actual expected life of a citrus orchard – 40 years – to calculate net profits, the total net profits for 40 years would be \$12,669,954, making the District’s estimated cost for grinding and hauling the orchard removal only three percent of the crop category’s net profit. This more than meets the District’s “10% of profits” threshold.

### 3. ARB Must Reject the District’s Feasibility Analysis

ARB cannot allow the District to rely on this arbitrary test to meet the statutory requirement to demonstrate economic infeasibility. There is no connection between the artificial ratio that the District has invented and any rational claim that the alternatives to burning are economically infeasible. Moreover, even if ARB could envision some theoretical argument for why the District’s invented test could act as a surrogate for infeasibility, the District’s calculations must all be redone to reflect the evidence in the record and provide a realistic picture of how the cost of alternatives compares to the real profits of each crop category. In most cases, the cost of the alternatives to burning are far less than 10% of the crop category’s real net profits and a postponement cannot be granted even under this made-up test for economic infeasibility.

Because the feasibility analysis is fundamentally flawed throughout the District’s analysis, the postponements must be rejected in their entirety. The remaining discussion below, nonetheless, addresses specific defects in the analysis for several of the crops that should not be allowed to burn and addresses the other criteria for a postponement allowed under S.B. 705 that have been manipulated by District and ARB Staff to try to justify these exemptions.

### **Burning of Citrus Orchard Removal Material Must Be Banned**

The District's justification for allowing the continued burning of citrus orchard removal materials typifies the faulty analysis throughout the District's Staff Report as well as ARB Staff's failure to provide any meaningful basis for concurrence. The District first claims that alternatives to burning will be too costly. This conclusion is based on the arbitrary profits test discussed above. To ensure that these alternatives would fail this made up test, the District inserts baseless assumptions to inflate the costs. For example, the District assumes citrus removal root material must be separated from the tree material and transported to a composting facility at an additional cost of \$244 per acre. *See* District Staff Report, Table 6-5 at 6-14. However, conversations with biomass facility operators and two of the largest orchard removal contractors in the Valley, confirmed that no such special treatment is needed for citrus roots. These can be chipped and transported to biomass facilities along with the rest of the chipped material.

The District next suggests that grinding and hauling material to a biomass plant may not be *technically* feasible, either. The District cites "concerns" by unidentified agricultural representatives that not all biomass plants accept citrus chips and that the existing biomass plants may not have the capacity to handle the additional wood material that would be generated if burning citrus removal were prohibited. These conclusions are again not supported by any evidence in the record.

The biomass industry testified repeatedly and submitted comments contradicting the District's claims that citrus is not readily accepted at the facilities serving the Valley. The District Staff Report admits: "Biomass power plant operators have indicated that previous concerns regarding certain materials have been alleviated over the past few years as the operators have improved the methods in processing the materials to better suit the needs of the plant." District Staff Report at 7-8. The District Staff Report further acknowledges the multi-million dollar investments many biomass operators have made to upgrade their facilities. *See Id.* at 7-13. Yet the technical infeasibility conclusions of the District and ARB Staff reflect none of these findings. *See, e.g.,* ARB Staff Report at 13.

In the version of the District Staff Report reviewed by ARB Staff, the District concluded that "staff does not believe that the biomass power plants have the capacity to use tonnage of agricultural material generated by the prohibition of burning of citrus orchard removals." ARB Staff blindly accept these conclusions. *See* ARB Staff Report at 13. However, in the District's May 20, 2010 revisions to the Staff Report, that language was removed and the District acknowledges the following:

- All 12 biomass power plants have very broad acceptance policies for wood fuel, which include citrus orchard and vineyard removals.



Letter to Ms. Mary Nichols

May 26, 2010

Page 9 of 15

- The Delano biomass power plant currently has the capacity to accept approximately 130,000 Bone Dry Tons (“BDTs”) of citrus annually.
- The total maximum storage capacity at all 12 facilities that use San Joaquin Valley agricultural waste is 782,500 tons. The current storage capacity of Covanta Delano alone is 125,000 green tons. Further, the majority of these facilities can store 60-175 operating days of fuel. This large storage capacity allows the use of wood fuel such as citrus and other types of fuel that may be stockpiled at significantly higher amounts and percentages than the actual fuel mix to the boiler (i.e., Covanta Delano may receive 50% citrus in the total agriculture deliveries for several months and then blend the fuel later to achieve an ideal mix to the boilers of 30% citrus).
- Citrus handling and grinding practices have changed resulting in a wood product that may be used in higher percentages than in past years. For example, Covanta Delano alone may now burn up to 100,000 BDTs of this fuel in any one year. Rio Bravo Fresno and Covanta Mendota are capable of burning up to 40,000 BDTs and 20,000 BDTs of citrus annually, respectively.

This new information provided by the biomass industry proves not only that the 12 biomass facilities serving the Valley are physically capable of handling the 54,035-ton increase in material that would be caused by a total prohibition on burning citrus orchard removals, but that the entire amount could be handled by just one plant (Covanta Delano). In an apparent attempt to support its now-debunked argument, the District highlights the fact that in spite of its capacity, the Covanta Delano plant only actually received 34,000 tons of citrus—as if the lack of supply of citrus material was somehow related to the plant’s acceptance policies. These attempts to manipulate the facts and the numbers in order to preserve an exemption for the citrus industry from the burn prohibition are absurd.

More alarming still is the fact that ARB Staff rely on these baseless conclusions without any attempt to verify any of them. ARB concurrence with no independent analysis of the factual basis for its conclusions is the very definition of arbitrary and capricious agency action.

### **Burning of Almond, Walnut, and Pecan Prunings Must Be Banned**

The District’s decision to exempt the burning of almond, walnut and pecan prunings is even more absurd. The District admits that “most nuts growers are currently shredding the prunings and leaving the materials on the orchard floor” and that “comments from growers and custom shredders indicat[e] that shredding of nut prunings has been a successful procedure in the farming operation.” District Staff Report at 3-30. Despite this, and findings in its economic feasibility analysis<sup>3</sup> that shredding almond, walnut, and pecan prunings is economically

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<sup>3</sup> Shredding was determined to be economically feasible even using the District’s flawed “10%

feasible for farms of all sizes, the District is proposing to allow growers whose total nut acreage is less than 3,500 acres to burn 20 acres of prunings, plus an unrestricted additional amount if:

- The operator submits to the APCO before the pruning operation is completed, a representative cost estimate(s) for shredding all prunings generated by the total nut acreage at the agricultural operation site. The cost estimate(s) shall reflect shredding in a time frame that allows the operator to proceed with established post-pruning cultural practices.
- The APCO determines that either the submitted cost estimate(s) represent(s) an unreasonable financial impact to the operator, or that adequate shredding services are not available in time for the operator to proceed with established post-pruning cultural practices.

District Staff Report at 3-29.

There is absolutely no authority under S.B. 705 for this type of open-ended, case-by-case exemption from the burning ban. The criteria and procedures the District proposes to use do not follow the criteria and procedures required for a postponement under Health and Safety Code section 41855.6. Most obviously, ARB is being asked to provide a "blank check" concurrence with no factual basis for finding that alternatives are economically infeasible.

ARB cannot rationally conclude that this type of open-ended exemption is justified. The District admits that most of these prunings are already being shred. *See* District Staff Report at 3-39 (noting that "about 18% of the [almond and walnut] acreage pruned per year is contributed to open burning, while most of the growers are using other alternative practices rather than open burn"). The District, nonetheless, suggests that it is infeasible to require a total ban on burning these prunings because 1) there may not be enough shredding/chipping contractors/equipment available to handle the additional material and 2) there are "concerns" over chips interfering with the harvest of the product.

Had ARB Staff investigated either of these claims, it would have quickly rejected them. In conversations with several of the largest shredding contractors in the Valley, all indicated that they are at nowhere near capacity for work and could easily take on the additional acres that would come with a burn ban. A quick look through the *Ag Source Magazine* shows as many as 30 contractors who can chip, shred, or grind agricultural materials. There are several types of shredding equipment available in the Valley to do this work (*see* District Staff Report at 3-37), including Flory, Rears, DiAnna, and JackRabbit machines. Over 80 percent of the pruned acres (or over 300,000 acres) are already being shred by the existing contractors. *See id.* at 3-38.

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of profits" test and a two year net profit period.

Furthermore, as the District Staff Report suggests, the amount of material being pruned has decreased significantly as growers move to lighter pruning (*see id* at 3-37), so the additional burden on contractors should be even less than assumed. There is simply no basis for the claim that the industry cannot handle the remaining acres if the burn ban is implemented as intended by law.

Regarding the District's second excuse that hullers have problems with chips getting mixed in with hulls, in conversations with contractors and representatives of the Almond Board of California, we have learned that this problem has been addressed as chipping/shredding has gotten finer and most contractors have not had any complaints about the chips in recent years.

Again, ARB Staff ignored the conflicting evidence in the record and made no attempt to verify any of the District's baseless claims by, for example, asking shredders about their capacity to handle additional material. Even the most superficial investigation would have revealed that the burning of these nut tree prunings is no longer a necessary option.

#### **Exemptions for the Burning of All Vineyard Removal Materials Cannot Be Justified**

In addition to the general fundamental flaws associated with the test used to show economic infeasibility, the District's analysis of alternatives available for various types of vineyard removals again relies on arbitrary assumptions to manipulate the cost conclusions.

For example, in analyzing alternatives for burning of kiwi vineyards, the District arbitrarily uses a 10-year life for vineyards that are expected to last at least 25 years. Recalculating the net profits over 25 years and using even the industry stakeholders' higher estimate of the cost of burn alternatives, the "cost per net profit per average farm" would only be 5.6% for kiwi farms over 100 acres and 6.6% for kiwi farms under 100 acres. Thus, even under the District's arbitrary profits test, the highly profitable kiwi industry should easily be able to handle the additional cost necessary to avoid burning and should not receive an exemption. The analysis for wine grapes must also be reconsidered to reflect the actual lifetime profitability of the vineyard.

The other trick used by the District is to combine different industries to hide differences in profitability. For the raisin and table grape categories, it is impossible to determine the true impact of the cost of burn alternatives because, while these two categories enjoy vastly different profits, the District has lumped them together for the purposes of analyzing economic feasibility, leading to an unrealistic result. The profits of the raisin industry are significantly lower than those of the table grape industry. The District averaged the profits of these different industries together to artificially reduce the overall profitability of table grapes, making the one-time expense of vineyard removal appear infeasible.

ARB must reject these attempts to manipulate the feasibility analysis and direct Staff to conduct its own independent assessment using reasonable assumptions and a rational metric for determining compliance with S.B. 705.

### **Postponement for Pome Fruit Prunings and Orchard Removal Violates California Health and Safety Code**

Without any analysis, the District concluded that there are no technologically feasible alternatives to open burning of apple, pear, and quince prunings or orchard removals. District Staff Report at 3-23, 3-28. This conclusion is based not on any actual analysis of feasibility, but on "concerns" over the risk of spreading fire blight, a bacterial disease that affects these crop types. The District mentions treatment with Streptomycin and burying diseased material in double plastic bags, but offers no analysis of the technical or economic feasibility of these options. The District also explains that pruning and orchard removal equipment is routinely sterilized when moving from tree to tree but doesn't explain why, with these routine precautions, removing waste materials for off-site destruction is infeasible but collecting these materials in a pile for burning is not.

The more fundamental problem with the District's conclusion, however, is that the risk of disease is not an allowable basis for postponing burning bans under state law. *See* Cal. Health & Safety Code § 41855.6. The risk of disease can be used to justify continued burning only if the requirements of Health and Safety Code section 41855.5(d) have been met. Section 41855.5(d) provides a limited, narrowly-tailored exception to the prohibition on burning through the use of conditional burning permits to be issued *on a case-by-case basis* with a finding by the agricultural commissioner of *actual* disease. In order for a source to receive such a conditional burn permit, it must describe the specific fields to be burned, demonstrate that it has had no violations of burning requirements over the last three years, and include a determination from the county agricultural commissioner that the disease is present, poses a threat to the health of adjacent trees, and there is no economically feasible alternative for eliminating the disease. Cal. Health & Safety Code § 41855.5(d).

The District's blanket exemption for the burning of pome fruit relies on the *risk* of disease to side step all of the specific findings required for a conditional burn permit. The District uses the possibility of disease to claim that there is no technically feasible alternative to burning whether or not the materials actually are diseased or pose any threat to adjacent plots. ARB cannot concur with this exemption because it meets none of the specific legal requirements for allowing burning to address disease.

### **Funding Commitment for Biomass and Other Burning Alternatives**

The District and ARB Staff assert that there is no long term federal or state funding to support biomass facilities. The brief analysis fails to acknowledge that nearly every biomass facility

serving the Valley has a long-term contract with one of California's investor owned utilities. Nor does the analysis mention the various agricultural incentive programs such as the Biomass Crop Assistance Program authorized under the 2008 Farm Bill that incentivize growers to send their agricultural waste to a qualified bioenergy facility. These funding sources along with the long list of initiatives intended to address greenhouse gas emissions and promote renewable energy more than satisfy the intent of S.B. 705 to ensure the continued viability of biomass as an alternative to burning.

### **The Emissions Exempted by the District Will Continue to Cause and Contribute to Violations of National Air Quality Standards**

The most disturbing portion of the ARB Staff Report is not its failure to conduct any of its own analysis on the feasibility of burning alternatives, but its misleading description of the air quality impacts that the various exemptions adopted by the District will have on one of the most polluted areas in the country. The ARB Staff Report's cynical presentation of the emissions data deserves a point-by-point review.

The ARB Staff Report first attempts to minimize the concern by claiming that burning on high pollution days is limited by the District's smoke management plan. ARB Staff Report at 3 and 16. The smoke management program does not stop pollution from burning; it merely reschedules those emissions. The contribution to unhealthy air from the pollutants created by burning – NO<sub>x</sub>, VOC, and PM<sub>2.5</sub> – is not limited to those days that are already at or near the federal standard. These pollutants remain in the atmosphere and add to the load that has made the Valley one of the worst PM<sub>2.5</sub>-polluted area in the country. S.B. 705 was adopted in the face of this smoke management system because the legislature recognized that it was not enough just to shuffle the timing of this pollution. For ARB to claim that pollution from this particular industry only matters on days when federal standards are being violated defies basic notions of atmospheric science and is inconsistent with decades of air quality planning efforts.

The ARB Staff Report next tries to craft an argument from chemical mass balance speciation data to claim that agricultural burning is responsible for less than 3% of the PM<sub>2.5</sub> measured in ambient air in Fresno and Bakersfield. ARB Staff Report at 3 and 16-17. The chemical mass balance analysis that ARB Staff uses looked at the chemical composition of the various particles collected in the studies to determine the portion of the particle mass that could be attributed to burnt vegetative matter. This data, however, does not include the secondary particle contribution to particle formation caused by the NO<sub>x</sub> and VOC emissions released from burning. As such, it underestimates the total contribution from burning.

Even more troubling, however, is that ARB Staff offer these numbers without providing any context to assess their significance. ARB Staff report the contribution of burning-related PM<sub>2.5</sub> as a percentage of the total PM<sub>2.5</sub> concentration, but that is not the relevant measure of how significantly these emissions contribute to the nonattainment problem. As the ARB Staff Report

notes, the design values in Fresno and Bakersfield are 17.1 ug/m<sup>3</sup> and 21.3 ug/m<sup>3</sup>, respectively. ARB Staff Report at 16. The national standard is currently 15 ug/m<sup>3</sup>. Thus, Fresno needs a 2.1 ug/m<sup>3</sup> improvement and Bakersfield needs a 6.3 ug/m<sup>3</sup> reduction in PM<sub>2.5</sub> concentrations to meet the national standard. ARB Staff claim that the remaining burning will only add .28 ug/m<sup>3</sup> in Fresno and .51 ug/m<sup>3</sup> in Bakersfield. *Id.* These concentrations represent 13% of the needed reductions in Fresno and 8% of the reductions needed for Bakersfield, even excluding the NO<sub>x</sub> benefits. These are hardly trivial portions of the pollution problem.

In order to understand how important this contribution is, ARB Staff should have provided a comparison to other major sources of pollution in the Valley. The ARB Staff Report is deliberately silent in providing such context. According to ARB's 2008 emissions inventory data for the San Joaquin Valley (available at [www.arb.ca.gov/app/emsinv/emssumcat\\_query.php?F\\_YR=2008&F\\_SEASON=A&SP=2009&F\\_DIV=-4&F\\_AREA=DIS&F\\_DIS=SJU](http://www.arb.ca.gov/app/emsinv/emssumcat_query.php?F_YR=2008&F_SEASON=A&SP=2009&F_DIV=-4&F_AREA=DIS&F_DIS=SJU)), the remaining emissions from agricultural burning, which is a subset of the managed burning and disposal inventory category, are 14.8 tons per day of PM<sub>2.5</sub>, 10.20 tons per day of NO<sub>x</sub>, and 12.46 tons per day of VOC. The final phase of the District's burning restrictions would lower these numbers by 0.34, 0.11, and 0.29 tons per day respectively. *See* District Staff Report at 5-7. Even with these reductions:

- Agricultural burning is the second largest category of direct PM<sub>2.5</sub> emissions, behind only dust from farming operations;
- Burning contributes results in more direct PM<sub>2.5</sub> emissions than all mobile sources combined and more than twice as much as all stationary fuel combustion sources combined;
- The remaining burning operations will add more NO<sub>x</sub> emissions than either electric utilities or cogeneration facilities;
- The NO<sub>x</sub> emissions from burning are roughly 60 percent of the NO<sub>x</sub> emissions from all passenger cars; and
- VOC emissions from burning are larger than any category of stationary source except oil and gas production.

To claim that these emissions are insignificant is to claim that virtually all sources of pollution are trivial and not worth controlling. Agricultural burning, with the massive exemptions that the District has adopted, will continue to be one of the largest categories of PM<sub>2.5</sub>, NO<sub>x</sub> and VOC emissions in the Valley. The Board must reject Staff's attempt to minimize the importance of this continuing problem.

Letter to Ms. Mary Nichols

May 26, 2010

Page 15 of 15

### Conclusion

The District's decision to exempt nearly half of all agricultural burning from the bans required by S.B. 705 is a terrible example of shaping the analysis to fit the desired outcome. The analysis comes nowhere close to meeting the legal criteria required for justifying postponements under state law. We urge you to reject the District's request for concurrence and direct the District to prohibit the burning of all feasible orchard and vineyard residues commencing June 1, 2010, as required by law. Special situations involving disease can be addressed on a case-by-case basis through conditional burn permits. Only through these changes can the Board assure that the requirements of S.B. 705 are met and that the pollution associated with burning is adequately addressed.

Sincerely,



Paul Cort  
Staff Attorney

Cc: Hon. Dean Florez  
James Goldstene, Executive Officer, ARB