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San Francisco, CA 94117

December 10, 2010

Chair Mary Nichols and Members of the Board

California Air Resources Board

1001 “I” Street

Sacramento, California 95812

Re: **Comments on Proposed California Cap-and-Trade Regulation and Environmental Justice**

Dear Chair and Members of the Board:

As federal and international efforts to provide a comprehensive approach to climate change fall by the wayside, it is all the more inspiring to review CARB’s development of a sophisticated cap-and-trade program for California. Although I express concerns about the degree to which the proposed regulation integrates greenhouse gas (GHG) and co-pollutant reduction objectives, those concerns should not be read as a condemnation of this impressive initiative.

These comments address the following topics:

* Reliance on offsets
* Impact of opt-in facilities on the allowance market
* Environmental impacts of biomass and biofuels
* Cap-and-trade and co-pollutants: Concerns
  + Increases in co-pollutants
    - Legal interpretation of “prevent any increase”
    - Potentially underestimate risk of emissions increases
  + Complement the state’s air quality objectives
* Cap-and-trade and co-pollutants: Suggestions
  + Mechanisms to maximize co-pollutant benefits
  + Staff’s concerns about these alternatives
* CARB assessment of co-pollutant impacts

1. Reduce Allowable Use of Offsets

The greater the use of offsets, the fewer the reductions from covered sectors. With fewer reductions in the covered sectors, there is less of an incentive to create more efficient alternatives and California will lose the environmental and economic co-benefits of GHG reductions in stationary source emissions. Rather than allowing for increased use of offsets, CARB should focus on cost containment mechanisms that respond to actual, not prospective, high prices, and that do not undermine incentives for reductions within covered sectors.

The Staff Report explains that the percentage of offsets that can be used to show compliance increased from 4% in the PDR to 8% in the current proposal to account for the decision to place a larger number of allowances in the Allowance Price Containment Reserve, since having more allowances in the Reserve would shrink the availability of allowances and potentially increase their cost.

Rather than assuming that greater offset use will be necessary to contain costs, CARB should limit offsets and increase allowance or offset supply if and when market conditions demonstrate that cost containment is, in fact, necessary. In many environmental programs, the costs of compliance have ended up lower than anticipated. Cost containment mechanisms that respond to actual prices are preferable. CARB could rely on the Reserve, or could begin by allowing 4%, and allow a progressively greater use of offsets if higher allowance prices emerge.

The Staff Report also emphasizes that allowing offsets provides the benefit of triggering GHG reductions or sequestration that might not otherwise occur. In addition, offset projects could generate their own environmental and economic co-benefits (whether domestically or abroad).

The implicit assumption is that these measures would not be undertaken in the absence of an offset program. That conclusion presents a false choice. Many offset projects, like manure digesters, are worthwhile. CARB should explore new requirements in the agriculture sector to reduce GHG emissions, not require industrial emitters to subsidize agricultural reductions. Moreover, CARB should not allow stationary source emitters to avoid their own reductions by facilitating reductions or sequestration that should happen in addition to, rather than instead of, their own reductions.

To the extent that the activities contemplated as offset projects do require external funding, the use of auction revenue would be a more environmentally sound mechanism for providing the necessary funding. Then the projects would provide emissions reductions that would complement, rather than supplant, stationary source emissions reductions.

1. Opt-in Covered Entities

If non-covered facilities “opt-in” to the cap-and-trade program, they are likely to do so because they can easily reduce energy use and seek to make a profit selling excess allowances. CARB needs to ensure that its provisions for allowing facilities to opt in address the potential that the facilities could increase the number of available allowances, dampening the incentive for covered facilities to reduce emissions. Just as the cap will be adjusted when transportation fuels are added to the program in 2015, the cap may need to be adjusted to account for the emissions associated with facilities that opt in.

1. Biomass and Biofuels

In all provisions relating to the burning of biomass and biofuels, CARB should carefully assess associated co-pollutant and other environmental implications. For example, if biomass-derived fuel sources do not have to account for their GHG emissions, the rule could create incentives to use biomass that have incidental adverse environmental consequences.

1. Cap-and-Trade and Co-Pollutants

Given the acknowledged link between GHGs and co-pollutants, the state would benefit from integrating its GHG and co-pollutant reduction strategies and creating a more unified approach to regulating industrial emissions.

AB 32 recognizes the connection between GHGs and co-pollutants, and instructs CARB to develop GHG reduction policies that would not only reduce GHGs, but do so in a way that “maximizes additional environmental and economic co-benefits for California, and complements the state’s efforts to improve air quality.”[[1]](#footnote-1) Overall, the scoping plan in general and the cap-and-trade program in particular will likely lead to improvements in air quality. That said, the cap-and-trade program does not include measures to prevent increases in co-pollutants or optimize the location of GHG and corresponding co-pollutant reductions.

1. **Concerns**
2. **Increases** **in co-pollutants**.

The California legislature expressed its concern about the distributional implications of a cap-and-trade program by explicitly stating that market mechanisms must, to the extent feasible, be designed “to prevent any increase in the emissions of toxic air contaminants or criteria air pollutants.”[[2]](#footnote-2)

My first comment is one of legal interpretation: based on the language in the Staff Report, the Staff appear to construe the language “prevent any increase” too narrowly. The Staff appear to be interpreting this language to mean that the cap-and-trade program *itself* must not “cause” increases in co-pollutant emissions.[[3]](#footnote-3) Under this approach, the Staff Report acknowledges that the cap-and-trade program could, in some instances, create incentives that could result in co-pollutant increases. For example, if a utility relies upon several different generation facilities, the price signal generated by the cap-and-trade program could induce the utility to increase production at more energy efficient facilities. Co-pollutant emissions could therefore increase at the more efficient facilities.[[4]](#footnote-4)

The Staff’s interpretation of AB 32 appears too narrow. The language states that the agency is required to “prevent” increases in co-pollutant emissions, without limiting that obligation to increases caused by the cap-and-trade program itself. As the Staff Report acknowledges, facilities could choose to increase emissions in order to increase production or expand into a new type of production. New facilities could also be built. To the extent a cap-and-trade program allows facilities to increase emissions by buying GHG allowances, the GHG control program would not constrain co-pollutant increases and could be inconsistent with AB 32’s requirements.

The Staff Report also suggests that co-pollutant increases are extremely unlikely to occur because the burden of New Source Review requirements and the cost of GHG allowances themselves will discourage increased emissions. At the same time, however, the Staff Report acknowledges that the state’s refineries are likely to continue to supply areas outside California even if demand for fossil fuels in California drops. The Staff Report also acknowledges that new biorefineries and biomass facilities could be incentivized by AB 32 implementation measures. Thus, emissions increases are a real possibility.

The case studies in the emissions assessment do include emissions increase scenarios, evaluating both the possibility that facilities would increase GHG emissions by 4 percent and the possibility of a new source in each study area. The Staff Report reveals that these GHG emissions increases would lead to small increases in co-pollutants relative to the baseline scenario.[[5]](#footnote-5) Moreover, it is possible that major facility expansions could lead to increases above 4 percent and that more than one new facility could choose to locate in certain areas, possibilities not considered by the assessment.

The Staff Report also argues that existing air pollution regulations would keep any co-pollutant increases to a minimum. This is not the place to pick apart California’s air pollution regulations, but it is not clear that they would fully address an impacted community’s concerns. For example, even if NSR were triggered and the facility had to purchase criteria pollutant offsets to compensate for the increase in criteria pollutants, it is not clear that the emission reduction credits would come from the same location as the increases, potentially leading to a net increase in impacted communities notwithstanding the offset requirement. Moreover, offset requirements apply only to criteria pollutants, not air toxics. While California’s “Hot Spots” program provides more attention to local emissions than occurs in most states, it does not directly prevent increases.

The Staff Report’s analysis of the impacts of emissions increases places them in context: the Staff Report analyzes potential co-pollutant increases under the cap-and-trade program in relation to the significant decreases in co-pollutants that existing regulations are expected to achieve by 2020. The state’s initiatives to decrease co-pollutants are laudable. And the Staff’s implicit point is well-taken: if those decreases are realized, there is less of a need to use AB 32 to indirectly accomplish co-pollutant reductions. Nonetheless, AB 32 states that the state’s GHG policies should be designed to complement its efforts to attain air quality standards. The cap-and-trade program, as currently designed, does not take that step.

These comments do not dispute that changes in *co-pollutant* levels as a consequence of *GHG* trading reflect the relative stringency of associated co-pollutant regulation. If a GHG trade leads to increases in co-pollutants, it is because the co-pollutant regulatory program did not prevent those increases. CARB may resist the effort to impose co-pollutant goals on its GHG regulatory program. But, as noted above, AB 32 explicitly links GHG and co-pollutant emissions by specifying that the flexibility of a market-based GHG program not lead to increases in associated co-pollutants, even if those increases would be permissible under existing co-pollutant regulations.

1. **Complement the state’s air quality objectives.**

As noted above, AB 32 directs CARB to develop policies that “complement[] the state’s efforts to improve air quality.”[[6]](#footnote-6) It is not enough to prevent co-pollutant *increases*. Ideally, the cap-and-trade program should help achieve air quality standards by targeting GHG, and associated co-pollutant, *reductions* in the state’s most polluted areas. Not surprisingly, CARB’s Co-Pollutant Emissions Assessment reveals that greater co-pollutant reductions benefits would be achieved if all facilities had to reduce their proportionate share than will be achieved by letting facilities trade GHG allowances in ways that could maintain or increase emissions.[[7]](#footnote-7) While the percentage difference in emissions reductions is small, the data indicates that the cap-and-trade program has not been designed to enhance the achievement of air quality objectives.

In addition, the emissions assessment does not evaluate what could have been achieved if the program were designed to require or incentivize greater GHG reductions in the state’s most polluted areas. The first scenario in all of the report’s case studies assumes that all facilities in the state reduce by the same amount. The report does not analyze the co-pollutant consequences of achieving greater-than-average GHG reductions in the state’s most polluted areas.

1. **Suggestions**

In response to the November 2009 Proposed Draft Regulation, I submitted comments addressing numerous ways in which a trading program could incorporate co-pollutant reduction objectives (Kaswan PDR comments). The comments did not advocate for any one mechanism, but evaluated the strengths and weaknesses of several options.

The Kaswan PDR comments are incorporated here by reference. Of the seven options included in the original memo, I would suggest focusing on the following four options (options that could be used individually or in combination):

1. Combine trading with direct regulation (now or in the future);
2. Impose individual facility caps for facilities in heavily-polluted areas;
3. Create incentives for greater reductions in heavily-polluted areas (through differentiated allowance allocation, fees, higher allowance prices, or enhanced allowance retirement requirements; and
4. Devote auction revenue to a Community Benefits Fund to help finance co-pollutant reductions in disadvantaged areas.

While I will not repeat the analysis of these options in this document, I will comment on the Staff’s discussion of some of these alternatives.

**Alternative Rejected by Staff - Implement Only Additional Source-Specific Command-and-Control Regulations**. CARB staff rejected the alternative of replacing the cap-and-trade program with a direct regulatory program for industrial sources. The Staff Report presents a number of convincing arguments for why regulation should not *replace* a cap-and-trade program, but did not address the value of complementing the cap-and-trade program with limited and targeted regulatory efforts where appropriate. The Staff Report expresses concerns about the cost-effectiveness of regulation if applied to all industries. But if regulation were used to complement cap-and-trade only where appropriate, CARB could take cost-effectiveness into account in deciding whether to impose regulations. In determining cost-effectiveness, it is also important for CARB to consider not only the costs of regulation to the relevant industry, but also the economic benefits of enhanced emissions reductions.

The Staff Report also observes that regulations would be difficult to draft given the lack of data on effective emission reduction mechanisms and the variation among facilities. However, CARB is requiring energy audits at industrial facilities, a process that includes an assessment of associated co-pollutant impacts. While current data may be insufficient, the audits could provide a much stronger basis for identifying cost-effective energy efficiency mechanisms that could be required at industrial facilities, and that could achieve both GHG and co-pollutant reductions.

CARB Staff may be assuming that facilities will adopt cost-effective reduction strategies in response to the price signal created by the cap-and-trade program, without the need for command-and-control regulations. But industrial investment decisions are complex. Inertia, uncertainty about future carbon markets, concerns about short-term capital expenditures, and other factors could impede otherwise cost-effective investment in emission reductions. If price signals do not end up prompting cost-effective measures with significant co-pollutant benefits, then CARB should retain the authority to require appropriate measures.

In addition, if CARB identifies cost-effective GHG emission reduction measures with particularly significant co-pollutant benefits,[[8]](#footnote-8) then it would be consistent with AB 32’s goals to require those measures rather than relying upon the vagaries of the market to incentivize them.

**Alternative Rejected by Staff: Facility-Specific Caps**. The Staff Report expresses valid concerns about a program that applied facility-specific caps to all facilities. But the Staff Report evaluates only the most extreme version of this option. First, facility caps could be applied only to facilities in the state’s most polluted areas. Second, the impact of facility caps would depend upon their stringency. The Staff Report rejects caps that would require each facility to reduce its proportional share of emissions. But a cap would not have to be that stringent. A cap that prevented the facility from increasing emissions would eliminate the risk of violating AB 32’s requirement that the trading program prevent increases, while still providing substantial flexibility. If facility increases are as unlikely as the Staff Report claims, then such caps could ensure that the program complies with AB 32 without having a significant impact on covered facilities.

To further AB 32’s goal’s of complementing the state’s efforts to achieve air quality, facility caps could, however, go farther than simply preventing increases. The caps could be set somewhat below the level of existing emissions. Such an approach could still be more flexible than the one that the Staff rejected, because the level could be set somewhere between current emissions and the full proportionate share of reductions.

The Staff reject facility caps because of their impact on cost-effectiveness. But a full assessment of cost-effectiveness should take into consideration not only the costs of pollution control, but the benefits of reducing pollution in heavily polluted areas. Thus, varying requirements depending upon the benefits of pollution control could be more, not less, cost-effective from the state’s perspective.

**Alternative Rejected by Staff: Restricting Trading in Adversely Impacted Communities**. Essentially, the Staff Report argues that existing programs are already doing enough to address pollution in California, and that trading restrictions on stationary sources would add only a marginal benefit. Ultimately, whether CARB thinks it is necessary or not, AB 32 states that California should use its GHG policies, including its market mechanisms, to further co-pollutant reduction goals.

1. **Assessment of Co-Pollutant Impacts**

The proposed regulation states that CARB will monitor the co-pollutant consequences of the trading program and take further action as appropriate. Such monitoring will provide an important opportunity to assess the program. However, the report indicates that such an assessment will occur only once a compliance period – once every three years. That appears to be too infrequent to properly monitor the program’s co-pollutant consequences.

Ultimately, the state’s commitment to reduce GHGs is likely to improve co-pollutant levels and redound to the benefit of most, if not all, Californians. The state could, however, take greater initiative in fulfilling AB 32’s invitation to link GHG and co-pollutant reduction benefits.

Thank you for the opportunity to submit these comments.

Sincerely,

Alice Kaswan

Professor of Law

1. Cal. Health & Safety Code § 38501(h). [↑](#footnote-ref-1)
2. Cal. Health & Safety Code § 38570(b)(2). [↑](#footnote-ref-2)
3. *See, e.g.,* Staff Report, P-4, note 1 (Stating that “[n]ot all emissions increases at facilities covered by the cap-and-trade program will result from the program itself …. Staff believes that only in very limited circumstances would a localized emissions increase be the actual result of the incentives created by the cap-and-trade program ….”). *See also* Staff Report at II-59, note 33; Staff Report at VII-3, note 79. [↑](#footnote-ref-3)
4. Incentivizing more efficient energy generation is, of course, a positive development. Nonetheless, AB 32 requires CARB to take the co-pollutant consequences into account. [↑](#footnote-ref-4)
5. For example, in the Wilmington case study, if GHG emissions increased by 4 %, then, in comparison with the baseline scenario resulting from current criteria pollutant controls, there would be 1% less NOx reduction, 2% less PM2.5 reduction, and 1% less ROG reduction. Staff Report, Table VII-2, at VII-13. Achieving less reduction is tantamount to increasing emissions relative to the baseline; co-pollutant emissions would be higher than they would have been had the facilities reduced instead of increasing GHG emissions. [↑](#footnote-ref-5)
6. Cal. Health & Safety Code § 38501(h). [↑](#footnote-ref-6)
7. For example, in the Wilmington case study, if facilities reduced their GHG emissions by their proportionate share rather than increasing emissions, co-pollutant reductions would be enhanced by 2% for NOx, 3% for PM2.5, and 1% for ROG. Staff Report, Table VII-2, at VII-13. [↑](#footnote-ref-7)
8. Co-pollutant benefits could be particularly significant either because GHG reductions lead to a large reduction in associated co-pollutants, and/or because the industries to be regulated are located in especially polluted areas. [↑](#footnote-ref-8)