REAP

Renewable Energy Action Project

Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, CA 95814

June 12, 2007

Delivered by Electronic Mail

Re: Amendments to the Phase 3 California Reformulated Gasoline Regulations

Dear Clerk of the Board,

The Renewable Energy Action Project (REAP), a national coalition of environmentalists, private foundations, local government agencies, renewable energy advocates and producers, appreciates the opportunity to comment on the "*Proposed 2007 Amendments to Phase 3 California Reformulated gasoline Regulations; Staff Report: Initial Statement of Reasons*," released on April 27, 2007. We commend the ARB staff for conducting an extensive and open rulemaking process for the purpose of developing amendments to the Predictive Model.

REAP generally supports the objectives set forth in the Initial Statement of Reasons (ISOR), especially with regard to updating the effect of carbon monoxide (CO) on ozone-forming potential and including permeation emissions in the Predictive Model (it should be noted, however, that permeation was not wholly unaccounted for in the previous model). We also support the staff's commitment to address offroad emissions in the coming months. We hope this issue will be addressed expeditiously, as unresolved technical issues will continue to hinder fuel diversification efforts with regard to ethanol use.

Among the several positive recommendations in the ISOR, REAP nonetheless does not feel that Executive Order S-06-06 was taken into adequate consideration.

On April 25, 2006, Governor Schwarzenegger provided guidance to ARB staff to maximize flexibility in the CaRFG3 regulation to utilize biofuels. The order (Executive Order S-06-06) stated, "[t]he California Air Resources Board is urged to consider as part of its rulemaking the most flexible possible use of biofuels through its Rulemaking to Update the Predictive Model and Specification for Reformulated Gasoline, while preserving the full environmental benefits of California's Reformulated Gasoline Programs." Several months later, Governor Schwarzenegger announced a plan to reduce California petroleum dependence, during which he directly referenced the intent of S-06-06 to "maintain current [biofuel] levels while enabling production and consumption growth." Governor Schwarzenegger's Executive Order is not mentioned in the ISOR as an organizing principle for conducting the rulemaking. The ISOR does not identify measures it considered in the context of S-06-06. In addition, getting to 10 percent ethanol blends (E10) is a widely recognized first step to meeting the Governor's low carbon fuel standard (LCFS) requirements. The ability for the state to get to E10 blends depends, first and foremost, on the CaRFG3 regulation, and more specifically, on the Predictive

Model. Yet this state policy goal is not identified in the ISOR as a driver for the amendments recommended by the state board.

REAP believes that ARB staff could go farther with regard to meeting the goals set forth by Governor Schwarzenegger.

During the rulemaking process, there was very little (if any) discussion about flexibility in the context of S-06-06. For example, we are not aware of any serious discussions about a minimum oxygen content requirement that would have maintained current levels of ethanol in gasoline (~6 percent). Also, there was no sub-committee group gathered to consider how to maximize flexibility in the regulation while protecting air quality. The California gasoline regulation is often referred to as one that facilitates market flexibility, with the implication being that ARB prefers not to require specific fuel recipes. However, beneath the exterior the regulation does enforce a framework of fuel controls for several fuel components such as sulfur, distillation temperature, aromatics, benzene, etc. While California clearly enforces a fuel regulation that is totally different and technically more advanced than other states, it is useful to note that Minnesota jumpstarted its fuel ethanol industry by enforcing a minimum oxygen requirement. California may prefer to diversify the fuels market via a carbon metric (re: the proposed LCFS). But at this point the LCFS is a concept, and could take years to develop and enforce.

The Alternative Emissions Reduction Plan (AERP) might be considered in the context of E10 and S-06-06. The proposed AERP approach provides refiners with an additional compliance option for mitigating increased permeation emissions from ethanol blends (18.4 tons per day in 2010; 12.1 tpd in 2015). Given that permeation emissions rates do not increase when a refiner moves from 6 percent to 10 percent ethanol content by volume, and certain hydrocarbon reductions accrue at 10 percent ethanol content, it has been suggested that with the AERP in place refiners may be more inclined to mitigate permeation by marketing E10. But the AERP only shifts the “penalties” ascribed to increased ethanol by the Predictive Model to other sectors or timeframes, and therefore may not be a realistic compliance option for the refining industry. It is unclear whether the AERP proposal increases the feasibility or probability of E10 use in California, and it is questionable to claim that the AERP actually increases flexibility to utilize biofuels in the marketplace, as called for by EO #S-06-06.

REAP recommends delaying final implementation until ARB staff considers a wider set of strategies to increase flexibility in the regulation. A “flexibility working group” could be pulled together in a relatively short time frame, as there are experts already working on these issues.

One way to increase flexibility is to adopt a Dual Model Approach. This methodology has not received adequate consideration, and requires further analysis.

Early in the public workshop process, REAP took interest in the Dual Model approach recommended then by Dr. Jonathan Cohen from ICF International, and now by a wider set of experts (recently resubmitted by the Renewable Fuels Association as “The Case for a Dual Tech 4 Model Within the California Predictive Model”). The Dual Model approach was first discussed with ARB as far back as 1999. This approach would increase regulatory flexibility for refiners to utilize E10 while protecting air quality.

During the course of more than a dozen public workshops, ARB staff made a commitment to provide a formal, technical and written response to the Cohen report in advance of the release of the ISOR, so that the technical arguments could be reviewed and discussed in a workshop setting. This commitment was made in part because the Dual Model proposal appeared to more accurately represent the response of the vehicle fleet to fuel property changes on a statistical basis. ARB did not furnish this response (significantly) prior to the ISOR, and the response it did submit (prepared by Dr. David M. Rocke of the University of California, Davis) includes very little technical analysis (the entire letter is ~ 2 pages). The critical question was whether there is an engineering justification for splitting the Model (a vehicle question), yet a vehicle expert was not retained by the state to look at the issue (an engineering justification for the Dual Model was submitted to ARB by Gary Herwick of Transportation Fuels Consulting, Inc.).

Given that stakeholders have not been given a chance to review ARB's technical position with regard to the issues detailed in Dr. Rocke's response, REAP recommends delaying final implementation until ARB staff provides a more thorough analysis of the work submitted by ICF International, Gary Herwick and Tom Darlington (AIR, Inc.), which could be conducted as part of the "flexibility working group" referenced above.

As the Board is aware, the California gasoline regulation has a history of inheriting overarching state policy challenges. The first version of the regulation needed to greatly reduce vehicular emissions and clean up gasoline to comply with federal and state air quality goals. The second version (1999/2000) advanced these state air quality goals, but also needed to create flexibility for the elimination of the gasoline additive and drinking water contaminant MTBE. The latest version proposes to resolve several outstanding technical issues (permeation included), but has also been tasked (EO S-06-06) with maximizing flexibility to use current and increasing amounts of biofuels in the California marketplace (while protecting air quality). However, the ISOR makes clear that S-06-06 was not a fundamental consideration in the process.

The treatment of ethanol in the fuel regulation is critical to the emerging California renewable fuels industry. Today's ethanol is produced largely from corn (and in the case of California producers, largely from corn already imported for animal feed markets). But tomorrow's ethanol may be produced from a variety of feedstocks, including biomass and agricultural waste. California cannot lead the renewable fuels market toward increased sustainability if the state's unique fuel regulation unnecessarily dissuades the use of the product.

Again, we appreciate the staff's efforts updating the Predictive Model and look forward to the timely incorporation of offroad impacts. But we encourage the Board to ask for more consideration of the flexibility component before approving the regulation. Please do not hesitate to contact REAP if further information is required.

Sincerely,

R. Brooke Coleman
Director
Renewable Energy Action Project (REAP)