July 18, 2007
Project 10096.001

Ms. Mary Nichols
Chair, California Air Resources Board
1001 "I" Street
Post Office Box 2815
Sacramento, California 95812

Subject: Detailed Comments & Recommendations for the Market Advisory Committee in response to the June 1, 2007, MAC Draft Report

Dear Ms. Nichols:

As representatives of the California cement industry, we welcome the opportunity to respond to the MAC's recommendations on the general conceptual design of a cap-and-trade system, and we look forward to further discussions of the design specifics affecting the cement industry or a broader regulatory program. After presenting an executive summary, we will discuss each issue in turn.

Executive Summary

- We believe that any state climate change policy must have the real potential to significantly reduce greenhouse gas emissions while minimizing the overall economic impact on the state. For a multi-sector cap-and-trade system to achieve meaningful reductions with minimal economic disruption, it must be well designed.

- Failure to design a cap-and-trade system that reflects the unique characteristics and key challenges of individual sectors will result in unacceptable costs and severe economic dislocation – shifting production to uncapped jurisdictions and compromising the policy's overall effectiveness at combating global greenhouse gas emissions (i.e. leakage).

- Although we believe that MAC has correctly stated that a cap-and-trade system must be consistent with fundamental principles of effectiveness, efficiency, and equity, we disagree that the application of these principles leads to many of the recommendations put forward in the MAC's report. The following recommendations are provided in an effort to bring these principles into better balance and create a cap-and-trade system that is acceptable to all stakeholders:

    1. ***Program Scope - Implementing a Comprehensive System:*** *A cap-and-trade system should be as comprehensive as possible from the outset. The transportation sector should be included in the initial phase of the program and CARB should aggressively pursue the development work needed to do so.*

2. ***Allowance Allocation - Addressing Sector-Specific Challenges:*** *Allocation decisions should be based on a "bottom-up" approach that considers the unique characteristics and challenges of specific industries. The ratio of auctioned to freely allocated permits should be determined independently for each sector – ensuring that the overall reliance on auctions is driven by practical economic considerations.*
3. ***Allowance Allocation - Applying the Equity-Value Neutrality Criteria:*** *To correct for competitive distortions and minimize leakage, policymakers should satisfy the equity-value neutrality criterion through the allocation of free allowances. Policymakers should select and apply a method for determining free allowances that satisfies the criterion, while maintaining incentives for early action.*
4. ***Allowance Allocation - Avoiding an Extreme 100% Auction Mandate:*** *Policymakers should avoid mandating a transition to a 100% auction, and should maintain a role for regulatory discretion by permanently designating a portion of allowances for free allocation. Where necessary to correct competitive distortions and satisfy the equity-value neutrality criterion, free allowances should be provided in perpetuity.*
5. ***Price Safety Valve - Insuring Against Unacceptable Costs:*** *A price safety valve or comparable mechanism that caps overall program costs should be incorporated into any cap-and-trade system. The choice of mechanism and trigger price should attempt to maximize the program's environmental integrity and ability to link with other trading regimes, subject to an acceptable cap on overall program costs. CARB should immediately commence the modeling and analysis needed to sufficiently inform the choice of an appropriate mechanism and trigger price.*

1.0 INTRODUCTION

As representatives of the California cement industry, we appreciate the opportunity to comment on the recommendations put forth on June 1st by the Market Advisory Committee (MAC) regarding the design of a cap-and-trade system.[1] In our letter of May 15 of this year, we provided several general recommendations for designing a cap-and-trade system that is consistent with principles of effectiveness, efficiency, and equity. And although we are pleased that the MAC has adopted similar guiding principles, we do not believe that their application logically leads to many of the recommendations in the report. Consequently, we would like to

[1] We recognize that this submission does not meet the June 15th deadline for comments. Considering the unusually short comment period and the time needed to carefully weigh the MAC's recommendations, we ask that this letter be considered by CARB in parallel with the MAC's final report.

take this opportunity to provide more detailed comments and recommendations on the conceptual design.

As mentioned in our previous letter, the California cement industry is the largest state cement industry in the U.S. and includes some of the most efficient facilities in the world. The cement industry is a cornerstone of economic growth and a sector of high strategic value to California – especially given the state's aging infrastructure. Any new regulations that impact California's cement manufacturers, such as CARB's policy options for achieving GHG reductions, are likely to have far reaching consequences for the state's economic prosperity and its ability to satisfy its considerable construction needs in a cost-effective manner.

Any new regulations that will significantly increase costs for California cement manufacturers and potentially place them at a competitive disadvantage is of high concern to the cement industry, our employees, our customers, and the California economy. We hope that regulators will make an effort to understand these concerns and develop an appreciation for the cement industry's unique challenges, as well as those of other industries that will be profoundly affected by the implementation of a cap-and-trade system.

Failure to sufficiently address such sector-specific challenges is likely to result in significant underinvestment and severe economic dislocation (i.e. leakage). The risk of leakage is particularly high for the cement industry. By its very nature, cement production involves significant energy consumption, carbon-intensive processes, and an internationally competitive environment that prevents manufacturers from passing through costs to consumers. Undoubtedly, a system that fails to address such challenges will result in the worst of all worlds – a climate change policy that burdens California with enormous economic costs, including higher unemployment and weakened growth, and that significantly compromises its ability to achieve meaningful global GHG emission reductions by shifting cement production to uncapped jurisdictions.

We continue to believe that a properly designed cap-and-trade system has the greatest potential to reduce greenhouse gas emissions in an effective, efficient, and equitable manner. And while we acknowledge the MAC's efforts and agree with its general goals, we are concerned that its guidance is often incomplete and occasionally inconsistent with its stated objectives. The following recommendations are intended to build on the framework presented in the report and provide adjustments that are essential to creating an effective, efficient, and equitable cap-and-trade system that can be supported by all stakeholders. We hope that MAC committee members, CARB staff, and state officials will embrace our recommendations as positive contributions to the advancement of California's economic, environmental, and strategic interests.

2.0 KEY CONCERNS & RECOMMENDATIONS

2.1 Program Scope: Implementing a Comprehensive Program

MAC Position: *There should be a gradual increase in program inclusiveness, with the transportation sector being included at some point in the future.*

Key Concern: *Failure to include major sources of GHG emissions (e.g., the transportation sector) in the initial phase of the program will unnecessarily burden early participants and increase overall costs.*

The MAC has clearly stated its preference for a program that is as inclusive as practically possible. Although we support this general sentiment, we disagree with the MAC's majority opinion that the program should include only first sellers of electricity and large industrial emitters before incorporating other sectors that are amenable to a cap-and-trade system – in particular, the transportation fuels sector. For numerous reasons, excluding the transportation sector at the outset of the program clearly violates sensible notions of effectiveness, efficiency, and equity:

- Achieving California's ambitious reduction targets will require that all major emitters contribute reductions as much as possible, as soon as possible. The transportation sector represents 40% of the state's GHG emissions – making it the largest emitting sector in the California economy. Failure to include almost half of all GHG emissions under the cap at the outset compromises the system's ability to practically and cost-effectively attain these economy-wide targets.

- As recognized by the MAC, "A broader program will yield additional opportunities for low-cost mitigation thereby reducing the expected cost of achieving overall emissions targets." (pg. 22) Conversely, restricting program scope by excluding the transportation sector from the initial phase places an unnecessary burden on affected parties by preventing them from enjoying the cost-reduction benefits that broad coverage provides – violating reasonable notions of equity. Similarly, restricting program scope unnecessarily raises the expected costs of the program – violating principles of efficiency.

- A key challenge for any cap-and-trade system is to develop a market for permits in the initial stages that is liquid, stable, and promotes public confidence. As the MAC notes, the realization of these objectives is directly related to the number of market participants. Specifically, a broader program "promotes greater market liquidity by increasing the number of entities involved in trading and helps to ensure that there are enough actors in the market to support active trading and prevent any one entity or group of entities from exercising market power." (pg. 23) Likewise, excluding the transportation sector from the initial phase will reduce the number of market participants, decrease market liquidity, increase price volatility, and enhance the

likelihood that any one entity can exercise market power – all dangerous developments for a market that is attempting to mature and establish credibility.

Despite the clear rationale for including the transportation sector at the outset of the program, the MAC has recommended that it be incorporated into the program over time, noting that "some work will be required" to overcome the administrative challenges of monitoring the approximately 30 first sellers of transportation fuels (pgs. 29,33). Given CARB's extensive experience with regulating transportation fuels and considering that much of the needed development work is already proceeding under the California's Low-Carbon Fuel Standard, it seems premature to conclude that regulators will be unable to "identify specific points of regulation, develop measurement and reporting protocols, and sort out the regulatory roles and responsibilities of industry and government officials" in a timely manner (pg. 33). Rather, considering the significant benefits that inclusion of the transportation sector can provide, it seems more prudent to recommend that CARB aggressively pursue the development work necessary to bring the transportation sector under the cap at the outset of the program.

Recommendation: *A cap-and-trade system should be as comprehensive as possible from the outset. The transportation sector should be included in the initial phase of the program and CARB should aggressively pursue the development work needed to do so.*

2.2 Allowance Allocation: Addressing Sector-Specific Challenges

MAC Position: *California should eventually transition to a 100% auction format, implying a "top-down" approach to allocation that is not based on an appreciation for the long-term challenges that a carbon constraint presents for various industries.*

Key Concern: *A cap-and-trade system will create unique long-term challenges for different industries and allocation decisions should be driven by these sector-specific considerations.*

The MAC has recommended that California distribute some allowances for free at the outset of the program and transition to a full auction over time (pg. 52). In the absence of significantly more detailed guidance, it appears that the MAC has adopted a "top-down" approach to allocation that is based on general rules of thumb rather than an appreciation for the long-term impact that a cap-and-trade program will have on various sectors of the California economy – an approach that overvalues simplicity at the expense of other vital objectives.

In contrast, a "bottom-up" approach based on sector-specific considerations is likely to strike a more reasonable balance between the primary objectives of effectiveness, efficiency, and equity. The distribution of costs throughout the economy is likely to be complex, uneven, and highly dependent upon the unique characteristics and composition of key sectors. Although research has shown that consumers are likely to shoulder a significant portion of the cost burden, it has also shown that certain sectors are likely to be severely and disproportionately impacted as well – for example, large energy consumers and carbon-intensive industries that are unable to pass

through costs to consumers, such as the cement industry. The method of allocation should reflect these complex and disparate burdens.

Specifically, the ratio of auctioned to freely allocated permits should be determined independently for each sector based on sector-specific considerations. Such a "bottom-up" approach will insure that the program's overall reliance on allocating allowances through auction is driven by practical economic considerations rather than simple rules of thumb.

Recommendation: *Allocation decisions should be based on a "bottom-up" approach that considers the unique characteristics and challenges of a given industry. The ratio of auctioned to freely allocated permits should be determined independently for each sector – ensuring that the overall reliance on auctions is driven by practical economic considerations.*

2.3 Allowance Allocation: Applying the Equity-Value Neutrality Criterion

MAC Position: *California should distribute allowances in a manner that mitigates economic dislocation caused by competition from firms in uncapped jurisdictions.*

Key Concern: *Failure to sufficiently compensate affected firms will increase the potential for leakage and compromise the environmental effectiveness of a cap-and-trade program.*

The MAC has clearly expressed its desire to minimize leakage and stated its support for "further study to determine whether any firms are likely to shut down or substantially downsize on account of competitive pressures that are directly connected to the absence of caps on global warming pollution outside of the state." (pg. 53, 54) We echo the MAC's comments and believe it is important to reemphasize the connection between allocation decisions, fairness, leakage, and the program's environmental effectiveness. The implementation of an asymmetric carbon constraint necessarily results in the distortion of competitive forces in sectors that are exposed to competition from uncapped jurisdictions. In the absence of countervailing measures, firms within key sectors will be forced to shut down or relocate – shifting production to less environmentally conscious regions and compromising the environmental effectiveness of the program. Fortunately, allocation decisions provide policymakers with a powerful tool for correcting such distortions.

To satisfy basic notions of fairness and mitigate leakage, we recommend that policymakers allocate allowances within each sector in a manner that preserves incentives for early action, while also satisfying an "equity-value neutrality" criterion. As described by Bovenberg and Goulder, the equity-value neutrality criterion requires that "the real value of equity of the principally affected industries must not be changed (that is, reduced) at the time the abatement policy is announced and implemented."[2] This is related to the actual cost burden that the regulation places on businesses, which depends on their ability to pass through costs and other

[2] Bovenberg, A. Lans and Lawrence H Goulder. "Neutralizing the Adverse Industry Impacts of CO2 Abatement Policies: What Does It Cost?." Resources for the Future, Discussion Paper 00-27, July 2000.

factors. The ability to pass through costs has not been studied for California businesses, and an assumption about California businesses' ability to pass through costs should not be made without appropriate study.

Note that the use of free allocation to meet the equity-value neutrality criterion does not need to diminish the reward for early action. Indeed, the careful selection and application of the allocation method (e.g., performance-based benchmarking) can simultaneously maintain incentives for early action, guard against windfall profits, insure that businesses are treated equitably, and minimize leakage.

Recommendation: *To correct for competitive distortions and minimize leakage, policymakers should satisfy the equity-value neutrality criterion through the allocation of free allowances. Policymakers should select and apply a method for determining free allowances that satisfies the criterion while maintaining incentives for early action.*

2.4 Allowance Allocation: Avoiding a Rigid and Extreme 100% Auction Mandate

MAC Position: *California should eventually transition to a 100% auction format.*

Key Concern: *Failure to provide free allowances on a permanent basis will significantly reduce investment in long-lived assets. Moreover, it is premature to mandate the appropriate amount of auctioned allowances, as the heavy use of auctions in a multi-sector cap-and-trade program remains untested and eliminates the important role of regulatory discretion.*

The MAC has simultaneously stated that some sectors will require compensation to mitigate the competitive distortions created by a cap-and-trade system and expressed its support for eventually auctioning 100% of allowances – recommendations that appear to be incompatible with each other and inconsistent with principles of effectiveness and equity. For sectors exposed to international competition, the distortions created by a carbon constraint are likely to persist until California's cap-and-trade system is replaced by a global regime that imposes a uniform price for carbon and eliminates the potential for leakage.

Perhaps even more importantly, capital investments in industries likely to be significantly impacted by a cap-and-trade system typically cost hundreds of millions of dollars and have productive lives of 20, 30, or 40 years or more. Such investments are highly sensitive to long-term expectations and risks. Even a gradual transition towards a 100% auction format is likely to significantly and immediately subvert investment in long-lived assets and advanced technologies. Thus, to the extent that they are justified by the equity-value neutrality criterion, free allocations should be provided in perpetuity in an effort to minimize investor uncertainty and mitigate underinvestment in long-lived assets and technologies.

In seeking to make equitable allocation decisions, regulators need to consider existing equipment life in setting the timing of regulatory caps to allow investors to obtain a reasonable return on

investments previously made. Capital intensity and equipment life vary significantly by industry sector.

Furthermore, the heavy use of auctions to distribute permits in a multi-sector cap-and-trade program remains untested. In the absence of practical experience, it is premature and imprudent to mandate the use of 100% auctions. Rather, policymakers should maintain a role for informed judgment by permanently designating a portion of allowances for free allocation. Policies and regulations must be clearly stated, but flexible enough to allow for adjustments based on past experience and the pace of market development.

Recommendation: *Policymakers should avoid a transition to a 100% auction and maintain a role for regulatory discretion by permanently designating a portion of allowances for free allocation. Where necessary to correct competitive distortions and satisfy the equity-value neutrality criterion, free allowances should be provided to firms in perpetuity or until a global emissions reduction program is implemented.*

2.5 Cost-Containment Mechanism

MAC Position: *A safety valve should not be included in the design of a cap-and-trade system.*

Key Concern: *In the absence of a price safety valve or other hard measures of cost-containment, a cap-and-trade system may impose unexpected and unacceptable costs on the California economy.*

The MAC has recommended that a California cap-and-trade program not include a price safety valve. On the one hand, a safety valve (if triggered) may compromise the hard emissions cap established by legislative mandate and make it more difficult to link to other trading programs. On the other hand, a ceiling price on emission allowances provides price certainty and limits the cost of a cap-and-trade program. Thus, a price safety valve crystallizes the trade-off between a program's environmental effectiveness and its overall costs, with the trigger price providing policymakers with an opportunity to determine the extent of this tradeoff.

A recommendation to completely exclude a price safety valve suggests a belief that California's environmental objectives should be achieved at any and all costs – an extreme position that no responsible policymaker should embrace. In contrast, a more sensible approach would be for policymakers to use informed judgment and rigorous analysis to estimate the point at which the costs of maintaining the state's carbon constraint are likely to become unacceptable, especially in the absence of a coordinated international effort to reduce GHGs.

The safety valve is one of the key mechanisms to minimize leakage. Concerns about unpredictable and potentially very high costs reduce the likelihood that businesses will invest to keep their production in California.

It should be noted that it is the triggering of a safety valve, not the existence of a safety valve, which can potentially affect the program's environmental effectiveness and ability to link with other markets. However, the triggering of a well chosen safety valve implies that either the cap was not achievable at acceptable costs or the market is not functioning properly. In either instance, the rationale for government intervention through a safety value mechanism is compelling. Thus, the appropriate debate is not "if" there should be a safety valve – indeed, responsible public policy demands it. Rather, the appropriate debate revolves around the choice of a trigger price that assures an acceptable balance between the program's environmental effectiveness and overall costs.

There are several specific mechanisms that have the potential to mitigate price spikes and these options should be the subject of more detailed analysis. However, in general, the careful design of the overall program – including a more inclusive scope, greater emphasis on sector-specific considerations, and a sensible allocation scheme – can minimize price volatility and reduce the likelihood that a price safety valve will be triggered.

Recommendation: *A price safety valve or comparable mechanism that caps overall program costs should be incorporated into any cap-and-trade system. The choice of mechanism and trigger price should attempt to maximize the program's environmental integrity and ability to link with other trading regimes, subject to an acceptable cap on overall program costs. CARB should immediately commence the modeling and analysis needed to sufficiently inform the choice of an appropriate mechanism and trigger price.*

We look forward to working with ARB on any regulatory issues through informal discussions and the submission of more detailed comments throughout this regulatory process. We would be happy to meet with ARB staff to discuss the issues raised in this letter.

Sincerely yours,

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