

COALITION FOR SUSTAINABLE CEMENT MANUFACTURING & ENVIRONMENT
1029 J Street, Suite 300, Sacramento, CA 95814

August 11, 2011

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

Subject: **Comments on CARB's July 25, 2011 Notice of Public Availability of Modified Text and Availability of Additional Documents Regarding the Cap-and-Trade Regulation under AB 32**

Dear Ms. Nichols:

The Coalition for Sustainable Cement Manufacturing and Environment ("CSCME"), a coalition of all six cement manufacturers in California,¹ hereby submits the following comments on the Notice of Public Availability of Modified Text and Availability of Additional Documents ("15-day Notice") issued on July 25, 2011 by the California Air Resources Board ("CARB"). Two sets of comments that CSCME recently submitted to CARB are attached, and CSCME incorporates the entirety of those comments into this submission. This submission supplements CSCME's previous comments, and focuses on the following issues:

- **Proposed Command-And-Control Measures:** CSCME is pleased that CARB recognizes that a public notice and comment period would be required prior to implementation of any command-and-control measures requiring that firms take certain actions identified as cost-effective in each individual firm's Energy Efficiency and Co-Benefits Audit ("EEA"). Any such notice and comment should focus on not only *how* to implement such command-and-control measures, but also on *whether* to do so. CSCME maintains that CARB should abandon any plans to implement such command-and-control measures. CARB lacks legal authority to implement such a command-and-control provision to regulate emissions other than greenhouse gas ("GHG") emissions under AB 32, and CARB has embraced the view of leading economists that command-and-control is not the most cost-effective approach to achieving the goals of AB 32.
- **Cement Benchmark And Early Actions:** CARB should adopt a cement benchmark that is based on the industry average GHG intensity, rather than the current benchmark based on the "best in class" emissions intensity of a single plant that would place all California cement producers at an

¹ The Coalition includes CalPortland Company, Cemex, Inc., Lehigh Southwest Cement Company, Mitsubishi Cement Corporation, National Cement Company of California Inc., and Texas Industries, Inc. There are ten cement plants located in California, eight of which are currently operating in the aftermath of the recent recession and uneven economic recovery.

immediate cost disadvantage.² Additionally, CARB should adjust the cement benchmark to account for early actions by California cement producers, including increased use of biogenic materials.

- **Indirect Emissions:** In order to minimize leakage, CARB should allocate allowances directly to industrial facilities with high exposure to leakage to account for indirect emissions.
- **True-up:** CSCME commends CARB's proposed modifications to the allowance allocation system in order to ensure alignment between actual and intended allowance allocations. Although CSCME believes that these proposed modifications represent a significant step in the right direction, we recommend that CARB make one additional adjustment to ensure the adoption of a "pure" true-up method.
- **Offsets:** CSCME is pleased that CARB recognizes the importance of offsets as both a cost-control mechanism and a way to advance the goal of global GHG emissions reductions. Quantitative and geographic limits on offsets are unnecessary and counterproductive. CARB should eliminate limits on the use of offsets, either altogether or at a minimum for industrial sectors with high vulnerability to leakage.
- **Prorating Allowances:** CARB has reaffirmed its intention to prorate allowances only in the industrial sector in the event that the amount of allowances dedicated to specific uses exceeds the amount of allowances available in a given year. CSCME recommends that: (1) all entities receiving allowances be subject to the risk of proration and (2) the sequence of proration among these entities be prioritized in order to minimize the risk in sectors highly exposed to leakage.
- **Penalty And Violation Provisions:** CSCME agrees with the modifications to Sections 96013 and 96014(b), but believes that Section 96014(c) should be modified to ensure it only applies to acts of deception and not to inadvertent omissions.

1. Proposed Command-And-Control Measures Related To Energy Efficiency And Co-Benefits Audits

CSCME recently submitted comments to CARB regarding CARB's apparent decision to implement command-and-control measures (in addition to cap-and-trade measures) to force California industries to take actions identified as cost-effective in each individual firm's EEA.³ CSCME communicated that CARB should not enact these proposed command-and-control measures on top of existing cap-and-trade measure because (1) neither AB 32 nor the California Environmental Quality Act ("CEQA") authorizes CARB to implement such a command-and-control approach to address emissions other than

² The application of the cap adjustment factor in 2013 ensures that all California cement producers face immediate costs associated with AB 32 compliance that are not faced by foreign suppliers. This cost disadvantage is then exacerbated further by various fees imposed by CARB as well as highly burdensome new U.S. federal regulatory requirements.

³ See CSCME letter to Chairman Nichols, "Comments on CARB's Notice of Public Availability of Cap-and-Trade Discussion Draft and July 15, 2011 Workshop -- Objection to the Application of New Command-and-Control Measures" (July 21, 2011). Attached at Exhibit 1.

GHG emissions in the proposed manner; (2) even assuming it had such authority, CARB has not provided an opportunity for notice and comment regarding these new proposed measures; and (3) CARB lacks any justification to pursue command-and-control measures in addition to cap-and-trade, in particular because CARB has recognized that command-and-control does not minimize leakage and has embraced the views of leading economists that it is not the most cost-effective approach to accomplishing AB 32's goals.

CSCME is pleased that CARB acknowledged in the 15-day Notice that a notice and comment period is required prior to implementation of any such command-and-control provisions. Without providing details, CARB stated that it would "initiate a separate public process in Fall 2011" related to its proposal to require industrial facilities to take certain actions identified in EEAs.⁴ If CARB does proceed with this separate public notice and comment period, it should request comments not only on *how* it might implement command-and-control, but also on *whether* it should do so.

Evaluation of whether to implement the proposed command-and-control measures is important, because CARB has not conducted cost-effectiveness analysis of these newly proposed command-and-control measures. CARB was clear during the EEA rulemaking process that it was not proposing any mandatory actions as a result of EEAs. For example, in its Initial Statement of Reasons in the EEA rulemaking process, CARB provided several reasons why its proposal "does not include a requirement to implement the improvement projects that are identified in the Assessment Reports."⁵ One of the reasons CARB provided was that "a cost-effectiveness or feasibility trigger would need to be established," and that this would be difficult prior to completing the audits.⁶ Similarly, in its Final Statement of Reasons during the EEA rulemaking, CARB stated that "[t]he regulation does not require implementation of any of the identified improvement opportunities, so therefore, does not provide or need to provide credit for investments."⁷ Thus, the use of EEA information to impose command-and-control measures was not part of the EEA rulemaking, and CARB must undertake a new notice and comment procedure that accords full due process rights to interested parties before expanding the scope of obligations in relation to the use of EEA information.

CSCME remains concerned about the legal basis for CARB imposing command-and-control in addition to cap-and-trade, as explained more fully in the attached comments. If, however, CARB does proceed as it has proposed, both AB 32 and CEQA require CARB to conduct a full analysis of the proposed command-

⁴ See CARB Notice of Availability of Modified Text and Availability of Additional Document (July 25, 2011) ("15-day Notice") at 2.

⁵ See Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Regulation for Energy Efficiency and Co-Benefits Assessment of Large Industrial Facilities at ES-8.

⁶ *Id.*

⁷ See Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Responses, Regulation for Energy Efficiency and Co-Benefits Assessment of Large Industrial Facilities at 14.

and-control measures in combination with cap-and-trade. As required by AB 32, this analysis must include consideration of both cost-effectiveness and minimization of leakage.

2. Cement Benchmark And Early Action Issues

CSCME recently submitted comments regarding cap-and-trade program design, addressing (1) the excessive stringency of CARB's proposed GHG emissions intensity benchmark based on the GHG emissions intensity of a single "best in class" cement plant; (2) the inadequacy of the proposed benchmark because it fails to recognize early action taken by California cement producers between 2006 and 2009, particularly their increased use of biogenic fuels; (3) the need for an incremental border adjustment to ensure that California producers regulated under AB 32 are not unfairly disadvantaged vis-à-vis cement exporters to California from less stringently regulated jurisdictions; and (4) the need to maintain strict confidentiality of firm-level allocation data.⁸ Each of these issues remains outstanding, and, if left unresolved, will result in leakage by exacerbating the adverse competitive conditions facing California cement producers.

As explained in the attached comments, use of a "best in class" emissions intensity benchmark would impose immediate compliance costs on all California cement plants that would not be borne by imports. This is in striking contrast to other sectors that have multiple plants that are rewarded for having lower emission intensities than the industry benchmark of 90% of the industry average. We agree with CARB that the benchmark should never be lower than the best performer in a given sector. By setting the benchmark at the level of the best performer, however, CARB is inequitably penalizing sectors with tight performance ranges (less than 10% around the average) relative to other sectors with wider performance ranges (greater than 10% around the average). Sectors like cement that are classified in the high leakage risk category should not have a more stringent benchmark standard than other sectors with lower leakage risk. That is why CSCME has proposed the use of the industry's average GHG intensity as a benchmark. We believe this approach is more equitable and more consistent with the objective of minimizing leakage to the extent feasible.

In the attached comments, CSCME also highlighted its concern that CARB's current proposed benchmark does not meet the AB 32 requirement to ensure that entities "receive appropriate credit for early voluntary reductions."⁹ Providing credit for early actions is not only required by AB 32 but also consistent with the EPA's administration of Best Available Control Technology ("BACT") determinations, which credit facilities for existing energy-efficiency improvements. Moreover, CARB cannot mandate energy efficiency improvements through command-and-control without taking into account the cement industry's pro-active efforts to make such improvements since the passage of AB32. It is fundamentally

⁸ See CSCME letter to Chairman Nichols, "Comments on CARB's Notice of Public Availability of Cap-and-Trade Discussion Draft and July 15, 2011 Workshop -- Cap-and-Trade Design" (July 21, 2011). Attached at **Exhibit 2**.

⁹ Health & Safety Code ("HSC") § 38562(b)(3). See **Exhibit 2** at 3-4.

inconsistent to recognize early actions, but not apply early actions to derive a corrected benchmark to credit such actions – actions which required capital and operational investment. CARB data suggest that the cement industry has significantly increased its use of biogenic materials from 2006 (*i.e.*, the year in which AB 32 was adopted) to 2009 (*i.e.*, the year used to establish the benchmark), but the current benchmark does not reflect these early actions. CARB should modify the benchmark for cement to account for these voluntary actions between 2006 and 2009.¹⁰

3. Indirect Emissions

CSCME has previously commented that failure to account for indirect emissions in the construction of the cement industry benchmark increases the risk of leakage.¹¹ CARB's revised Section 95892(a) might appear to address this concern by requiring electrical distribution utilities to use allocated allowances "exclusively for the benefit of retail ratepayers." This provision for indirect emissions, however, is inadequate, because no guidance is provided as to how to allocate allowances among ratepayers. AB 32 requires CARB to minimize leakage. CARB has recognized that the risk of emissions leakage is a function of the net increase in total policy-related costs (including the costs associated with direct and indirect emissions)¹² and, thus, that minimizing leakage requires addressing both direct and indirect emissions.

CARB may not rely on the California Public Utilities Commission ("PUC") to minimize leakage resulting from indirect emissions. As CSCME has previously observed, AB 32 requires CARB, not the PUC, "to adopt greenhouse gas emission limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions,"¹³ and "to the extent feasible . . . minimize leakage" in addition to consideration of other factors.¹⁴ Providing general guidance to use allocated allowances "for the benefit of retail ratepayers" is insufficient action to ensure CARB is fulfilling its mandate under AB 32 to minimize leakage.

As a result, for industries with high exposure to leakage, CARB should allocate allowances directly to compensate for indirect emissions. This would be consistent with the approach that was proposed at

¹⁰ Such credit would be consistent with the approach under the energy-based allocation calculation methodology where CARB added text to section 95891(c)(1) to explain that "the baseline annual amount of California GHG Allowances directly allocated to each eligible entity will be representative of current activity but provide appropriate credit for early voluntary reductions in greenhouse gas emissions." 15-day Notice at 18.

¹¹ See CSCME letter to Chairman Nichols, "Final Comments On CARB's October 28, 2010 Proposed Cap-and-Trade Regulation And Supporting Documents" (Dec. 15, 2010) ("CSCME Dec. 15, 2010 Comments") at 18-22.

¹² This is directly recognized in CARB Appendix J: Allowance Allocation, at Figure J-5 and indirectly recognized by the inclusion of indirect emissions when assessing each industry's leakage risk.

¹³ HSC § 38562(a). See CSCME discussion of this unlawful delegation issue in the CSCME Dec. 15, 2010 Comments at 20-22.

¹⁴ HSC § 38562(b)(2), (8).

the federal level in the Waxman-Markey bill¹⁵ and would ensure that CARB fulfills its statutory mandate to minimize leakage.

4. True-up

CARB's ISOR proposed to allocate allowances to the industrial sector according to a lagged average of output in previous years. Under the ISOR approach, a facility's emissions obligations would correspond to their actual level of output during the compliance period (*e.g.*, 2012), but their allocated allowances for that same compliance period would be based on an average level of output during previous years (*e.g.*, 2008-2010).¹⁶ In addition, the ISOR approach made no effort to bring allowance allocations and compliance obligations into alignment through an ex-post "true-up" mechanism.¹⁷

As noted in CSCME's previous comments, the ISOR approach introduces the possibility that certain industries may experience a significant disconnect between the actual level of allowance allocation and the intended level, as implied by CARB's policy design. This possibility is particularly concerning in the context of the recent economic recession and housing crisis, which have substantially depressed output in certain industries, including the California cement industry. As trends in the economy improve, these industries are likely to experience gradual increases in output as they eventually return to a more normal market environment. As a result, they will experience a persistent under-allocation of allowances throughout the policy timeframe under the ISOR approach, because compliance obligations will correspond to actual output in a given year while allowance allocations correspond to the much lower output observed in previous years. Indeed, CSCME estimates that, relative to a true-up system in which both obligations and allowance allocations are based on actual output, the ISOR approach is likely to double the cement industry's compliance costs under AB 32.

Accordingly, CSCME commends CARB staff for its proposed modifications to the output term of the allowance allocation system, including the use of output data from the most recent year available and the inclusion of a "true-up factor" in the allocation formula. We also note, however, that the proposed solution only approximates a "pure" true-up mechanism and does not eliminate all of the biases embedded in the ISOR approach. Specifically, the proposed solution does not eliminate the possibility that facilities will not receive a true-up for the last two years of the program in the event that it is discontinued. Furthermore, it does not eliminate the possibility that facilities may need to submit compliance obligations well in advance of receiving its full portion of allowances — effectively imposing

¹⁵ See CSCME December 15, 2010 Comments at 20.

¹⁶ See CARB Appendix J: Allowance Allocation, at J-34.

¹⁷ A "true up" refers to the practice of allocating allowances at the beginning of a compliance year based on projected output and adjusting those allowances after the compliance year once actual output is known (*i.e.*, data for the compliance year is reported and verified).

"carrying costs" on those facilities in the interceding months. CSCME believes that such issues can be avoided with a small modification to CARB's proposed solution.

Specifically, CSCME recommends that, rather than applying the true-up factor to future allocations, CARB apply it to existing compliance obligations. The merits of this approach are relatively straightforward. In order to accurately assess compliance obligations, CARB must have verified MRR data on both a facility's emissions and output during the compliance year in question — therefore, it has all the data it needs to perform a "pure" true-up. Furthermore, the adjustment is relatively simple — CARB only needs to remove the true-up factor from the allowance allocation formula and apply it as an offsetting term in the calculation of a facility's outstanding emissions obligations.

For example, assume that a facility has an allocation rate per unit of output (*i.e.*, the product of the industry benchmark, assistance factor, and cap adjustment factor) in 2013 of 0.8 allowance per ton of CO₂-e emitted. In addition, assume that the facility's output in 2011 was 1.0 million units and, therefore, CARB allocates 800,000 allowances to the facility in January 2013. In addition, assume that the facility's actual output in 2013 is eventually determined to be 1.2 million units and, therefore, the facility should have received 960,000 allowances.

Under CARB's proposed approach, the difference between expected and actual allowance allocations (160,000) will be added to the facility's allowance allocation in January of 2015, which is the first allocation that occurs after the facility's actual 2013 output is known. In contrast, under CSCME's proposed modification, this same amount of allowances will instead be subtracted from the facility's 2013 compliance obligations, which are assessed in the fall of 2014 — thereby ensuring perfect alignment between actual and intended allowance allocations at the earliest practical date.

5. Offsets

CSCME is pleased that CARB recognizes the importance of offsets as both a cost-control mechanism and a way to advance the goal of GHG emissions reductions. Offsets are an important tool to help minimize leakage.

Given the importance of offsets and CARB's stringent qualification rules for all offsets, CSCME is concerned about the limit on offset use. Currently, CARB has proposed that a maximum of 8 percent of an industrial facility's compliance obligation can be met by offsets. This limit is unnecessary in light of CARB's stringent offset qualification rules, and it is also counterproductive as it could limit the cost-effectiveness of CARB's GHG reduction program, particularly for California cement producers who have few, if any, additional cost-effective abatement opportunities available.

In order to ensure adequate offset availability, CARB should not limit the geographical location of qualified offset projects. Currently, CARB proposes limiting offset projects to North America.¹⁸ Approval of all offset programs that meet CARB's stringent qualification requirements, regardless of geographical location, would be consistent with AB 32's goal of reducing global GHG emissions.¹⁹

CARB should eliminate both quantitative and geographic limits on the use of qualified offsets to satisfy compliance obligations. Alternatively, if CARB does maintain some limit on the use of offsets, limits should vary based on an industry's leakage category. The cement sector, with its high vulnerability to leakage, therefore should have a high limit (if any) on its ability to rely on offsets to meet its compliance obligations.

Finally, geographic limits on offsets undermine certain fundamental principles on which AB 32 is based, including California's global leadership in addressing climate change and the importance of national and international action to fully address the issue of global warming. By limiting offsets to California, CARB would signal that achieving lower GHG reductions in California is preferable to using the same funds to achieve higher GHG reductions and associated co-benefits in local communities that lack the type of stringent environmental controls imposed in California.

6. Prorating Allowances

In the modified text, CARB reaffirmed its intention to prorate allowances only in the industrial sector in the event that the amount of allowances dedicated to specific uses exceeds the amount of allowances available in a given year. As a result, the industrial sector assumes the full risk that CARB mistakenly over-allocates allowances. In addition to being incompatible with basic notions of equity, this approach is counterproductive to the goals of the program given the concentration of leakage risk in the industrial sector. Accordingly, CSCME recommends that: (1) all entities receiving allowances be subject to the risk of proration and (2) the sequence of proration among these entities be prioritized in order to minimize the risk in sectors highly exposed to leakage.

7. Penalty And Violation Provisions

a. Section 96013

CARB's revision to Section 96013 requires it to "consider all relevant circumstances, including the criteria in Health and Safety Code section 42403(b)" in determining any penalty amount for failing to surrender the appropriate number of compliance instruments in a timely manner. This minor clarification is appropriate, because it highlights the need for CARB to consider circumstances in determining a penalty amount. Factors mentioned in HSC § 42403(b) include the extent of any harm

¹⁸ 15-day Notice at 21 (discussing modifications to Section 95972(c)).

¹⁹ See HSC § 38501(d).

caused, the nature and persistence of a violation, the frequency of past violations, and the financial burden to the defendant. Explicit reference to consideration of such factors helps ensure consistency of the AB 32 program with other environmental programs.

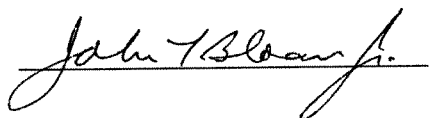
b. Section 96014(b)

CARB states in the 15-day Notice that it modified Section 96014(b) to clarify that entities will not accrue daily violations for failing to surrender a compliance instrument on the required day until at least forty-five days have passed, in order to "allow greater time to obtain the compliance instruments and thus maintain stability of the market."²⁰ CSCME agrees that this clarification is reasonable.

c. Section 96014(c)

CARB states in the 15-day Notice that Section 96014(c) was added "to clarify that any act of deception in working with ARB will subject an entity to additional penalties."²¹ CSCME is concerned that Section 96014(c), as currently drafted, could require additional penalties as a result of not only deceptive acts and statements but also inadvertent omissions. Specifically, Section 96014(c)(2) refers to any submission that "[m]akes any false, fictitious or fraudulent statement or representation," and Section 96014(c)(4) refers to any submission that "[o]mits material facts from a submittal or record." CSCME respectfully submits that the term "knowingly" should be added to both of these provisions to ensure that each provision addresses deceptive rather than inadvertent acts. This would be consistent both with CARB's stated purpose of addressing acts of deception and with the wording of Section 96014(c)(3), which refers to relying on a false document "*knowing* the same to contain any false, fictitious or fraudulent statement or entry." (emphasis added)

Sincerely yours,



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²⁰ 15-day Notice at 41.

²¹ 15-day Notice at 41.

COALITION FOR SUSTAINABLE CEMENT MANUFACTURING & ENVIRONMENT
1029 J Street, Suite 300, Sacramento, CA 95814

July 21, 2011

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

Subject: Comments on CARB's Notice of Public Availability of Cap-and-Trade Discussion Draft and July 15, 2011 Workshop -- Objection to the Application of New Command-and-Control Measures

Dear Ms. Nichols:

The Coalition for Sustainable Cement Manufacturing and Environment ("CSCME"), a coalition of all six cement manufacturers in California,¹ hereby submits the following comments on the California Air Resources Board ("CARB") Notice of Public Availability of Cap-and-Trade Discussion Draft and July 15, 2011 Workshop ("Notice"). These comments focus on CARB's apparent decision to implement new command-and-control measures in addition to its cap-and-trade program.

CARB appears to have concluded that it will now implement command-and-control measures (in addition to cap-and-trade measures) to force California industries to take actions identified as cost-effective in each individual firm's Energy Efficiency and Co-Benefits Audit ("EEA"). Neither AB 32 nor the California Environmental Quality Act authorizes CARB to implement such a command-and-control approach to address pollutants other than greenhouse gas ("GHG") emissions in this manner. Moreover, even assuming it had such authority, CARB has not provided an opportunity for notice and comment regarding these new proposed measures. Finally, CARB lacks any justification to pursue command-and-control measures because CARB has recognized that command-and-control does not minimize leakage and has embraced the views of leading economists that it is not the most cost-effective approach to accomplishing AB 32's goals.

1. CARB Should Not Implement New Command-And-Control Measures

On page 3 of the Notice, CARB states that

Staff is also investigating ways to ensure that large industrial sources
subject to the recently finalized Energy Efficiency and Co-Benefits Audit

¹ The Coalition includes CalPortland Company, Cemex, Inc., Lehigh Southwest Cement Company, Mitsubishi Cement Corporation, National Cement Company of California Inc., and Texas Industries, Inc. There are ten cement plants located in California, eight of which are currently operating in the aftermath of the recent recession and uneven economic recovery.

regulation be required to take all cost-effective actions identified under those audits.

This is a command-and-control provision, because CARB would use the results of EEAs to require industries to take certain actions deemed cost-effective. CARB should abandon this command-and-control approach. CARB is not legally authorized under AB 32 and the California Environmental Quality Act to implement this command-and-control provision to address pollutants other than GHG emissions. Analysis by CARB and other experts demonstrates that the command-and-control approach would be less cost-effective than a cap-and-trade approach and would likely result in significant leakage in the cement sector.

a. Use of the command-and-control provision to regulate anything other than GHG emissions would exceed the scope of legislative delegation under AB 32

Under section 38530(a) of AB 32, CARB must “adopt regulations to require the reporting and verification of statewide greenhouse gas emissions.” Section 38560 of AB 32 directs CARB to “adopt rules and regulations in an open and public process to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions from sources or categories of sources.” Similarly, section 38562 provides that CARB will “adopt greenhouse gas emission limits and emission reduction measures by regulation.” Regarding the development of the Scoping Plan, section 38561(a) of AB 32 similarly provides that the plan governs “achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions.” Subpart (b) confirms that the Scoping Plan

shall identify and make recommendations on direct emission reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives for sources and categories of sources that the state board finds are necessary or desirable to facilitate the achievement of the maximum feasible and cost-effective reductions of greenhouse gas emissions by 2020.

Although AB 32 provides CARB the statutory authority to enact regulations to collect and verify emissions data and to reduce greenhouse gas (“GHG”) emissions, it does not provide any authority, express or implied, for CARB to regulate anything other than GHG emissions. In the section of the Statement of Reasons on Primary Enabling Legislation, CARB implicitly recognizes the limitations on its authority, noting that AB 32 “made ARB responsible for monitoring and reducing GHG emissions” and required CARB to adopt a Scoping Plan “to reduce GHG emissions.”²

² Initial Statement of Reasons for Proposed Rulemaking for the Proposed Regulation, at 2.

By utilizing the proposed command-and-control approach to require all cost-effective actions identified in EEAs, CARB would exceed its legislative delegation under AB 32 to regulate solely GHG emissions. In addition to GHG emissions, EEAs will consider criteria air pollutants and toxic air contaminant emissions.³ Although the legislature could have given authority to CARB to regulate other emissions under AB 32, it did not do so. Thus, CARB would exceed its authority by considering criteria pollutants in determining which measures are cost-effective.

Several provisions of AB 32 may appear to justify command-and-control regulation of criteria pollutants, but in fact do not. Section 38561(a) requires that CARB ensure all GHG emissions reduction activities are “complementary, nonduplicative, and can be implemented in an efficient and cost-effective manner.” Command-and-control regulation of criteria pollutants would not meet these requirements because it would not be cost-effective and may be duplicative of existing regulations of these pollutants. Whereas existing regulations governing criteria pollutants are designed to effectively reduce these pollutants, the use of a GHG control measure to reduce criteria pollutants is a blunt and ineffective instrument given that there is often no direct relationship between GHG reduction and criteria pollutant control.

Moreover, cap-and-trade is designed to capture all cost-effective measures. As CARB staff has stated, “[t]he flexibility afforded by a cap-and-trade program helps ensure that the needed GHG emissions reductions are cost-effective.”⁴ Adding command-and-control measures that require cost-effective measures on top of a cap-and-trade program that is already designed to capture all cost-effective measures is inherently duplicative. The inherent problem with using energy efficiency mandates to supplement cap-and-trade is that energy efficiency mandates focus on only one approach to reducing GHG emissions (through reduced energy usage), whereas cap-and-trade allows for multiple approaches to reducing GHG emissions, including alternative fuels and other approaches. Because mandating energy efficiency measures removes the flexibility of choosing other approaches, it is inherently less cost-effective than cap-and-trade.

Importantly, although Sections 38562(b)(2), (4), and (6) discuss considerations that may impact criteria pollutants,⁵ CARB is authorized to take actions only in the context of measures that “achieve the

³ See, e.g., Section 95604(a) of the Final Regulation Order: Regulation For Energy Efficiency And Co-Benefits Assessment Of Large Industrial Facilities.

⁴ See CARB Proposed Regulation to Implement the California Cap-and-Trade Program, Staff Report: Initial Statement of Reasons (October 28, 2010) at ES-4.

⁵ See Health & Safety Code (“HSC”) § 38562(b)(2) (directing CARB to design regulations implementing AB 32 that “do not disproportionately impact low-income communities”); § 38562(b)(4) (directing CARB to design regulations implementing AB 32 that “complement, and do not interfere with, efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminant emissions”); § 38562(b)(6) (directing CARB to “[c]onsider overall societal benefits, including reductions in other air pollutants”).

maximum technologically feasible and cost-effective reductions in greenhouse gas emissions”⁶ and are taken “in furtherance of achieving the statewide greenhouse gas emissions limit.”⁷ Moreover, Sections 38562(b)(2) and (4) do not grant affirmative authority to CARB to take any actions, but are prohibitions against CARB taking actions that would “disproportionately impact low-income communities”⁸ or “interfere with efforts to achieve and maintain federal and state ambient air quality standards.”⁹ Section 38562(b)(6) simply calls for CARB to consider societal benefits “including reductions in other air pollutants.” Because there is no evidence that command-and-control regulation of criteria pollutants is a cost-effective way to pursue the GHG emissions reduction goals of AB 32, and cost-effectiveness is required under AB 32, CARB cannot implement command-and-control on the basis of mere “considerations” of societal benefits under Section 38562(b)(6).

Similarly, provisions of Section 38570(b) that call for consideration of “localized impacts in communities that are already adversely impacted by air pollution,”¹⁰ regulatory design that would “prevent any increase in the emissions of toxic air contaminants or criteria air pollutants,”¹¹ and “additional environmental and economic benefits”¹² must be read in context. These considerations are only to be taken into account to the extent that they are consistent with AB 32’s overarching goal: “achieving the statewide greenhouse gas emissions limit.”¹³ Moreover, because Section 38570 simply provides detail about market-based compliance mechanisms that are components of the overall plan for greenhouse gas emissions reductions in Section 38562, any actions taken under Section 38570 must also be “cost-effective.”¹⁴

Finally, Section 38501(h) references “additional environmental and economic co-benefits,” but this provision is merely a “finding,” or an expression of general intent on the part of the Legislature. It is a well-established principle of statutory interpretation that a more specific statutory provision takes precedence over a general provision.¹⁵ Therefore, the more specific provisions of Section 38562, with

⁶ HSC § 38562(a) (emphases added).

⁷ HSC § 38562(b) (emphasis added).

⁸ HSC § 38562(b)(2).

⁹ HSC § 38562(b)(4).

¹⁰ HSC § 38570(b)(1).

¹¹ HSC § 38570(b)(2).

¹² HSC § 38570(b)(3).

¹³ HSC § 38570(b).

¹⁴ See HSC § 38562(a).

¹⁵ See *Salazar v. Eastin*, 9 Cal. 4th 836, 857 (Cal. 1995) (“Under well-established principles of statutory interpretation, the more specific provision takes precedence over the more general one.”) (internal citations omitted).

the requirements of focusing on GHG emissions reductions, implementing cost-effective measures, and minimizing leakage take precedence over general intent expressed in Section 38501(h).

Thus, rather than providing justification to impose command-and-control measures to limit, directly or indirectly, criteria pollutants, each of these provisions highlights the fact that AB 32 does not provide authority for direct regulation of such pollutants. In short, CARB is required to implement measures that achieve cost-effective GHG emissions reductions and minimize leakage, and the imposition of command-and-control measures on industrial sectors does not achieve cost-effective GHG emissions reductions and does not minimize leakage based on the reduction of criteria pollutants.

b. Implementation of command-and-control without a new cost-effectiveness analysis would violate both the California Environmental Quality Act and AB 32

Both the California Environmental Quality Act ("CEQA") and AB 32 require analysis of the cost-effectiveness of proposed actions affecting the environment.¹⁶ Although CARB recently released its Supplement to the AB 32 Scoping Plan Functional Equivalent Document (June 13, 2011) ("FED Supplement"), in which it compared its Scoping Plan with five alternatives, that analysis did not include the command-and-control elements that are being proposed pursuant to EEAs. Comparison of the cost-effectiveness of this proposed Scoping Plan with additional command-and-control elements versus other alternatives would be required before implementation.

CARB recognized this requirement in its Final Statement of Reasons for Rulemaking for the Public Hearing to Consider Adopting the Regulation for Energy Efficiency and Co-Benefits Assessment of Large Industrial Facilities (July 22, 2010) ("FSR"). In response to a comment from CSCME that CARB must consider cost-effectiveness and minimize leakage if it proceeds to adopt any GHG reduction measures based on EEAs, CARB staff stated that "we agree with this comment. Any regulation that requires emission reductions must include an economic analysis in order to determine the cost-effectiveness of those reductions."¹⁷ In accordance with AB 32, CEQA, and CARB's own analysis, proceeding with any command-and-control provisions stemming from EEAs would require a full analysis that includes cost-effectiveness and minimizing leakage. Moreover, that analysis may not evaluate command-and-control in isolation, but must assess the proposal's burdens on the cap-and-trade program.

¹⁶ See Pub. Resources Code ("PRC") § 21001(g) (requiring government agencies to consider "long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment"); see also HSC § 38562(b)(1) (requiring CARB to consider cost-effectiveness of regulations implementing AB 32).

¹⁷ FSR at 27.

c. Implementation of command-and-control would require an official notice and comment period on this provision

Prior to the recent Notice, CARB had been clear that its proposed EEA regulation “does not require any actions to reduce emissions, nor claim any emission reductions associated with implementation of the regulation.”¹⁸ This was why CARB stated that a cost-effectiveness analysis of the EEA regulation was not required.¹⁹ The Notice is an about-face from CARB’s prior assurances, which avoided notice on this issue. Therefore, implementing the proposed command-and-control measure would be a substantive change of the EEA regulation as formerly proposed, and would require not only analysis of cost-effectiveness and leakage considerations, but a public notice and comment period before such a provision could be adopted.

In developing command-and-control measures, it is necessary to apply due process (as was applied in the existing regulations that the energy efficiency mandates would duplicate), including evaluating required reductions, developing a plan for the combination of all measures, and distributing reductions between the measures. Without this comprehensive planning and distribution process, which helps ensure equity between sectors as well as the selection of effective and suitable measures, a regulation mandating the reduction of criteria pollutants fails the due process standard. Moreover, in the past, toxic air contaminant control measures have been developed using a health risk-based analysis. Any toxic air contaminant control measures that are developed without a health risk-based analysis fail the due process standard.

In summary, in considering energy efficiency mandates for criteria pollutant and toxic air contaminant reductions, CARB has failed to perform basic due process for developing these regulations, in addition to duplicating existing regulations. Given that performing the required due process for such regulations is likely to result in a finding that energy efficiency mandates are a blunt instrument for criteria pollutant and toxic air contaminant reductions, and also unnecessary compared to existing regulations already in place, the lack of due process is particularly problematic.

Because the energy efficiency audits are a self-reporting mechanism, they also do not lend themselves to the due process required for developing a command-and-control regulation, and hence, the use of this mechanism for developing mandates is inappropriate and should be abandoned. Like those used to develop the economic analysis for the cap-and-trade program, previous studies of available reductions by outside parties (which are more objective than self-reporting) indicated that costs of particular measures varied widely between facilities due to site-specific factors and that economic incentives (in the form of a cap-and-trade program) were the best mechanism for promoting reductions.

¹⁸ Staff Report: Initial Statement of Reasons for Proposed Rulemaking regarding Regulation for Energy Efficiency and Co-benefits Assessment of Large Industrial Facilities (June 2010) (“ISR”) at 4.

¹⁹ *Id.*

d. CARB has already recognized that command-and-control does not minimize leakage

AB 32 requires CARB to minimize leakage to the extent feasible when adopting regulations implementing AB 32.²⁰ CARB has already recognized that a command-and-control approach to GHG reduction does not minimize leakage.

In its Supplement to the AB 32 Scoping Plan Functional Equivalent Document (June 13, 2011) (“FED Supplement”), CARB provided expanded analysis of the five alternative approaches to the Scoping Plan that it had considered in the 2008 Scoping Plan FED. Alternative 3, which CARB described as implementing “Source-Specific Regulatory Requirements,” is a command-and-control approach. In its analysis of Alternative 3, CARB acknowledged significant concerns about leakage resulting from this approach.

[I]mplementation of this Alternative could result in substantial leakage for industrial sources and electricity generation, because the performance standards placed on the covered sectors are not defined by market conditions. . . . Also, if the performance standard limit applied to refineries, cement production, and oil and gas extraction were set too stringently, such facilities could decide it is more cost-effective to curtail in-state output and shift operations out-of-state, rather than invest in energy efficiency or other modifications in California. If this occurred, it would reduce in-state GHG and co-pollutant emissions, but also increase out-of-state production and importation/transportation potentially resulting in increased out-of-state and transportation emissions. Consequently, implementation of this Alternative could result in adverse regional and local air quality impacts out-of-state associated with construction (e.g., use of heavy-duty equipment) and operational (e.g., higher facility production levels) increases in criteria air pollutants and TACs.²¹

CARB concluded its analysis of this leakage issue by stating that “these air quality impacts would be potentially significant and unavoidable.”²² Whereas the other GHG command-and-control measures

²⁰ HSC § 38562(b)(8).

²¹ FED Supplement at 77.

²² *Id.*

previously adopted by ARB in connection with AB32 (new car standards and low-carbon fuel standard) have broad applicability such that they do not promote leakage (*i.e.*, these standards apply to all vehicles and all fuel entering California), a GHG command-and-control measure based on mandating energy efficiency measures at California plants would promote leakage because these standards do not apply to products entering California from outside that are competing with products made in California (at refineries, cement plants, and oil and gas extraction facilities).

These concerns about leakage due to command-and-control's lack of connection to market forces provided strong support for CARB's decision to reject command-and-control as an alternative to the Scoping Plan's use of cap-and-trade in pursuing the objectives of AB 32. Having properly rejected command-and-control as an overall approach to meeting the objectives of AB 32, CARB should also reject this end-run to incorporate command-and-control elements into its use of EEs.

e. Cap-and-trade is more cost-effective than command-and-control

A key feature of a cap-and-trade system is that it utilizes market mechanisms, including a uniform allowance price and emissions trading, to reveal and realize cost-effective reductions. In contrast, even the most "enlightened regulator" cannot satisfy the tremendous informational requirements needed to implement command-and-control measures that are capable of accurately identifying the range of opportunities for emissions reductions, including innovative approaches yet to be discovered, and equalize the cost of abatement throughout the economy. This is the primary reason why cap-and-trade is widely considered more cost-effective than command-and-control. Even if command-and-control measures could be designed to achieve cost-effective reductions, these same reductions would be achieved under a cap-and-trade system, as well. Thus, CARB's proposal to regulate GHG emissions in the industrial sector under both command-and-control and cap-and-trade is, by design, duplicative and inefficient.

Research and analysis by a variety of economists establishes that cap-and-trade is a more cost-effective approach than command-and-control. The conclusion of the Economic and Allocation Advisory Committee ("EAAC") on this point is clear:

A touted attraction of cap and trade is its ability to achieve GHG reductions at lower cost than other policy approaches. This means that whatever the overall impact of AB 32 on state income, the end result will be greater income than would be the case without cap and trade.²³

EAAC members and other economists have reinforced this conclusion in a variety of contexts. In testimony before the U.S. House of Representatives Committee on Energy and Commerce, EAAC

²³ CARB (Mar 2011). "Allocating Emissions Allowances Under a California Cap-and-Trade Program: Recommendations to the California Air Resources Board and California Environmental Protection Agency".

member Dallas Burtraw cited two studies finding significant savings for SO₂ emissions trading programs as compared to uniform emissions rate standards -- with one study finding savings of 43 percent in compliance costs.²⁴ Burtraw testified that the other study he cited

provide[d] another estimate of cost savings that is based on an extensive survey of the industry, with extrapolation to estimate long-run compliance cost. The authors estimate the cost savings from emission trading, inclusive of savings attributable to banking, to be about 55 percent of total compliance costs under a command-and-control approach. Hence, two major studies of cost savings (Carlson et al. 2000 and Ellerman et al. 2000) are in general agreement on this estimate.²⁵

Burtraw's conclusion, based on these studies and others, was that if constructed properly "a cap-and-trade program can help us achieve our environmental goals at dramatically less cost than other types of regulatory approaches."²⁶

Spencer Banzhaf noted several advantages to market-based approaches such as cap-and-trade over command-and-control regulations.

Either way, these market-based approaches have three advantages over more intrusive command-and-control regulations. First, they create flexibility in who cuts their pollution. Industrial facilities that find it easy to reduce their emissions can save money by making extra cuts and selling their pollution rights, while those that face steep abatement costs can pollute more. Second, market-based approaches create flexibility in how the cuts are made. Plant managers, who know their own business better than anybody in Washington, are given full freedom to make the cuts however they choose. Finally, market-based approaches create incentives for entrepreneurs to devise new ways to reduce pollution more efficiently.²⁷

Janet Peace and Robert Stavins noted issues with both cost-effectiveness and environmental effectiveness when mechanisms are not market-based as with cap-and trade:

²⁴ Burtraw, Dallas, "Climate Change: Lessons Learned from Existing Cap and Trade Programs," Testimony to U.S. House of Representatives Committee on Energy and Commerce at 3 (Mar. 29, 2007).

²⁵ *Id.* at 4.

²⁶ *Id.* at 16.

²⁷ Banzhaf, Spencer, "The case for cap-and-trade," PERC Reports, Vol. 29, No. 2. (Summer 2011).

There is little debate that standards tend to be more costly than market-based instruments, because their inflexibility means that they drive up costs in the face of the extremely wide variation in abatement costs that characterize the climate problem (and, for that matter, most other environmental problems). But, beyond this, the environmental effectiveness of a standards-based approach depends on the technical ability of policymakers to design and governments to implement a very wide array of standards sufficiently diverse to address the sources of GHG emissions in a modern economy. Because of the large number of sources and the differing types of technology, this would neither be easy nor quick.²⁸

Peace and Stavins quantify the significant cost-savings that have been estimated in various studies by using market-based approaches to environmental protection in several different contexts.

Studies that have evaluated the performance of these market-based approaches to environmental protection have found that they have achieved their environmental objectives and have done so at lower cost than conventional, command-and-control approaches. Estimates of cost savings range from seven percent to 96 percent, with more than half of studies showing that market-based programs cut the cost of regulation by well over 50 percent compared with command-and-control options. For example, the SO₂ allowance trading program resulted in 33 percent cost savings—on the order of \$1 billion annually (Ellerman, 2000) while reducing power-sector emissions from 15.7 million tons in 1990 to 7.6 million tons in 2008 (U.S. Environmental Protection Agency, 2010). The phase-down of leaded gasoline in the 1980s, which employed trading of environmental credits, was also successful in meeting its environmental targets, while yielding cost savings of about \$250 million per year (Stavins 2003).²⁹

EAAC member Lawrence H. Goulder has cited a study indicating that market-based trading programs can yield significant cost savings compared to a command-and-control program.

Carlson et al. (2000) estimated that the allowance trading under Title IV of the Clean Air Act offered potential cost savings of \$700-\$800 million

²⁸ Peace, J & R. Stavins, Pew Center on Global Climate Change, "In Brief: Meaningful & Cost Effective Climate Policy: The Case for Cap & Trade," at 10 (July 2010).

²⁹ *Id.* at 4.

per year compared to an "enlightened" command-and-control program characterized by a uniform emissions rate standard.³⁰

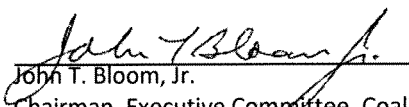
Brian C. Murray, Jan V. Mazurek, and Timothy H. Profeta cite to another study estimating 50 percent cost savings to meet the same emissions target using a trading program rather than a command-and-control approach.

Krupnick et al. (2000) examine the costs of NOx emissions reductions in an annual trading program in a larger region of 12 states and the District of Columbia, which represent the major sources of emissions in the eastern United States, and is intended to capture most of the emissions within the broader SIP Call region. They find emissions reduction targets can be met at roughly 50% cost savings under a trading program when there are no transaction costs, compared to a command-and-control approach. This provides a rare explicit analysis of the cost savings of trading for NOx.³¹

2. Conclusion

For all of the above reasons, CARB should not implement the command-and-control provision it proposed in its Notice. CARB is not legally authorized under either AB 32 or CEQA to implement the provision at this time, and it does not meet the requirements under AB 32 of cost-effectiveness or minimizing leakage.

Sincerely yours,



John T. Bloom, Jr.
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³⁰ Goulder, L.H. (Jan 2009). "Carbon Taxes vs. Cap and Trade," at 7.

³¹ Murray, Mazurek, Profeta, Nicholas Institute for Environmental Policy Solutions, "Examination of the Carbon Free Alternative for the State of California" (June 2011).

COALITION FOR SUSTAINABLE CEMENT MANUFACTURING & ENVIRONMENT
1029 J Street, Suite 300, Sacramento, CA 95814

July 21, 2011

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

Subject: Comments on CARB's Notice of Public Availability of Cap-and-Trade Discussion Draft and July 15, 2011 Workshop -- Cap-and-Trade Design

Dear Ms. Nichols:

The Coalition for Sustainable Cement Manufacturing and Environment ("CSCME"), a coalition of all six cement manufacturers in California,¹ hereby submits the following comments on the California Air Resources Board ("CARB") Notice of Public Availability of Cap-and-Trade Discussion Draft and July 15, 2011 Workshop ("Notice"). These comments focus on issues with CARB's design of a cap-and-trade system, including:

- **Benchmark Stringency:** CARB proposes to establish a product benchmark that is equal to the GHG intensity of the most efficient California cement producer. As noted by CSCME in previous comments, the most appropriate approach to minimizing leakage in the cement industry is to establish a benchmark equal to the industry average GHG intensity.
- **Rewarding Early Action:** CARB's proposed benchmark for the cement industry does not reflect early actions taken by the industry to reduce its GHG emissions in anticipation of AB 32 implementation. Accordingly, the cement benchmark should be revised to reflect such early action, especially the increased use of biogenic fuels between 2006 (*i.e.*, the year in which AB 32 was adopted) and 2009 (*i.e.*, the year used to establish the benchmark).
- **Incremental Border Adjustment:** CARB's proposed "best-in-class" benchmark will, by design, impose immediate costs on California cement producers that will not be borne by cement producers outside of California. These incremental costs, along with the high leakage vulnerability of California cement producers, heighten the need for prompt implementation of a border adjustment measure to minimize leakage.
- **Data Confidentiality:** Firm-level allocation information for cement plants should be kept confidential. The public release of such information could, when coupled with other public sources,

¹ The Coalition includes CalPortland Company, Cemex, Inc., Lehigh Southwest Cement Company, Mitsubishi Cement Corporation, National Cement Company of California Inc., and Texas Industries, Inc. There are ten cement plants located in California, eight of which are currently operating in the aftermath of the recent recession and uneven economic recovery.

provide competitors with the data necessary to calculate output, GHG intensities, and regulatory costs for individual cement plants. This information would provide out-of-state producers with an asymmetrical competitive advantage that could exacerbate leakage in the California market.

1. CARB Should Adopt A Cement Benchmark That Is Equal To The Industry's Average GHG Intensity

CARB's proposed benchmark virtually guarantees that all but one California cement plant will incur incremental compliance costs not borne by importers. In doing so, CARB directly contradicts its statements that it has "designed the regulation to minimize leakage by placing covered entities on an equal footing with their non-covered competitors (both those that are out-of-state, and those that are below the threshold for inclusion in the program)"² and that its "method of allocation levels the playing field with out-of-state manufacturers," given that this cannot, in fact, be the case from using CARB's methodology.³ Furthermore, the magnitude and impact of these costs will only grow as the cap adjustment factor declines — thereby exacerbating the risk of leakage over time.

In the July 2011 Discussion Draft, CARB reiterated its belief that "benchmark stringency should reflect the emissions intensity of highly efficient, low-emitting facilities within each sector." However, CARB fails to offer a clear explanation of why staff "believes" this is an appropriate approach, much less how this is consistent with its statutory requirement to minimize leakage. Although some stakeholders have suggested that a more stringent benchmark will provide an "extra incentive" to abate, this is simply incorrect. As stated by EAAC, "the number of allowances a firm receives does not reduce incentives to abate emissions or to invest in new, low-emissions technologies."⁴ In contrast, the stringency of the benchmark does influence the extent to which those incentives are positive (*i.e.*, leakage reducing) or negative (*i.e.*, leakage enhancing). Simply put, a more stringent benchmark does not increase the incentive to abate, but it does enhance the risk of leakage in highly exposed industries.

CARB's proposed cement benchmark is in conflict with its repeated statements that the allocation of allowances is intended to provide a transitional adjustment for leakage exposed industries.⁵ CARB is guaranteeing that the vast majority of the California cement industry will immediately be subject to compliance costs, without any corresponding measure to ensure that the cost burden is shared by imports and without any analysis to show that such an immediate shock will not cause irreversible damage from the outset of the program. Rather than adopting a precautionary approach, CARB appears

² CARB Statement of Reasons, at II-57.

³ CARB Appendix O: Functional Equivalent Document, at 378.

⁴ Economic & Allocation Advisory Committee (March 2010). "Allocating Emissions Allowances Under a California Cap-and-Trade Program: Recommendations to the California Air Resources Board and California Environmental Protection Agency from the Economic and Allocation Advisory Committee" at 14.

⁵ See CARB Initial Statement of Reasons at II-24, II-26, II-27, II-29; CARB Appendix J: Allowance Allocation, at J-18, J-19, and J-24.

to simply assume that its proposed benchmark will not increase leakage, without any basis for its assumption.

CARB does, however, discuss its approach to establishing benchmarks in the context of the European Union Emissions Trading System ("EU ETS") approach for its third compliance period (2012-2015). Implicit in this discussion is the notion that CARB's approach is comparable to that adopted by the EU ETS. However, CARB's comparison fails to recognize several key differences:

- The EU ETS benchmark for the cement industry represents the average GHG intensity of the 10 percent best performing cement facilities in that jurisdiction. The EU ETS benchmark is based on the GHG intensity of 25 cement plants. In contrast, CARB's proposed benchmark for the California cement industry is based on the GHG intensity of one plant in one year (*i.e.*, a single observation), making it a much less robust measure.
- The EU ETS approach to establishing benchmarks for the third compliance period is significantly more aggressive than the approach it used in the first two compliance periods, providing EU cement producers with nearly eight years to acclimate and adapt to the new regime. Moreover, EU cement producers received an over allocation of allowances during the first two compliance periods due to the economic decline, enabling them to "bank" allowances that will further mitigate the transition to a more restricted approach in the third compliance period. In contrast, CARB proposes to adopt this more aggressive approach immediately, providing the California cement industry with very little time to acclimate and adapt to the new regime.

Ultimately, CARB should adopt a benchmark that is equal to the average GHG intensity of the California cement industry, which is consistent with allowance allocation schemes proposed in the United States at the federal level (*e.g.*, HR 2454 - "Waxman-Markey"). Such an approach would reduce the cost disparity between domestic and out-of-state producers, provide California producers with time to acclimate and adapt to the new regime, and utilize a more robust estimation method, all while maintaining the same incentives to pursue cost-effective abatement opportunities and new innovations.

2. CARB's Proposed Cement Benchmark Should Be Revised To Reflect Early Action Taken By the Industry In Anticipation of AB 32 Implementation

Section 38562(b)(3) of AB 32 requires that CARB "{e}nsure that entities that have voluntarily reduced their greenhouse gas emissions prior to the implementation of this section receive appropriate credit for early voluntary reductions." CARB's proposed benchmark for the cement industry does not reflect early actions taken by the industry.

In particular, CARB data suggest that the cement industry has significantly increased its use of biogenic materials from 2006 (*i.e.*, the year in which AB 32 was adopted) to 2009 (*i.e.*, the year used to establish the benchmark). At the same time, industry production has fallen from historic highs to an historic low

— indicating that the use of biogenic material per ton of output has increased at an even faster rate. It is also likely that California cement producers increased the proportion of inter-ground limestone in the finished product, another GHG abatement activity, during this time period. Accordingly, to the extent that improvements in GHG intensity can be verified through data analysis, CARB should revise its cement industry benchmark to reflect these early actions.

3. The Additional Costs That Will Be Imposed By CARB's Proposed Benchmark For Cement Demonstrate That Prompt Implementation Of An Incremental Border Adjustment Measure To Minimize Leakage Is Critical

CARB has proposed a benchmark of 0.786 allowances per metric ton of adjusted clinker and mineral additives produced.⁶ Again, because this benchmark is based on a "best-in-class" emissions intensity of a single California cement facility,⁷ all other facilities will, by design, immediately face incremental costs that are not borne by cement producers outside of California.

Throughout the past three years, CSCME has provided evidence to CARB of the California cement industry's high vulnerability to leakage.⁸ This evidence includes the magnitude of GHG intensity of cement production, extremely limited cost-effective abatement opportunities, the fact that cement is a fungible commodity sold primarily on the basis of price, high fixed costs that incentivize maximizing capacity utilization, and exposure to unregulated competition.⁹ Due to these conditions of competition, incremental costs faced by California cement producers that are not also borne by cement producers outside of California are virtually certain to lead to leakage, resulting in higher GHG emissions due to transportation emissions and, in most cases, higher production emissions by producers in less stringently regulated jurisdictions.¹⁰

AB 32 directs CARB to design all GHG emissions-reduction measures in a manner that minimizes leakage to the extent feasible.¹¹ CARB recognized in its December 16, 2010 Resolution that the "cement sector [is] particularly well-suited as a pilot project for the development and consideration of a border

⁶ Notice, Appendix B at 8, 16-17. Note that there is an unexplained discrepancy between CARB and CSCME's estimates regarding the GHG intensity of the best performer. The source of this discrepancy should be identified and resolved prior to the finalization of a cement benchmark.

⁷ *Id.*

⁸ See, e.g., CSCME Final Comments on CARB's October 28, 2010 Proposed Cap-and-Trade Regulation & Supporting Documents at 4-9 (Dec. 15, 2010).

⁹ *Id.*

¹⁰ See "Minimizing 'Leakage' Under Climate Change Proposals Affecting the California Cement Industry," submitted as Exhibit F.1 to CSCME's December 15, 2010 Final Comments On CARB's October 28, 2010 Proposed Cap-and-Trade Regulation And Supporting Documents.

¹¹ Health & Safety Code § 38562(b)(8).

adjustment measure.”¹² As a result, CARB directed its staff to consider a border adjustment for cement and to implement it if feasible and necessary.¹³

The cement sector’s high vulnerability to leakage and the certainty of incremental costs on California cement producers demonstrate the critical need for a border adjustment measure for cement. CARB has shown an understanding of the particular vulnerability of the cement sector to leakage, and this demonstrates the necessity of a border adjustment measure. Moreover, CSCME is prepared to assist CARB by providing data and analysis necessary to develop a border adjustment measure, ensuring that implementation of a border adjustment measure for cement is also feasible.

4. CARB Should Maintain The Confidentiality Of Firm-Level Allocation Information

Confidentiality concerns are particularly relevant to the cement industry. Members of the industry treat virtually all company-specific and plant-specific data associated with energy costs and energy efficiency as confidential, because the cost of energy is a key driver of total production cost in this energy-intensive industry. Under a cap-and-trade system, the cost of GHG emissions will assume similar importance.

As CARB is aware, cement production is highly capital- and energy-intensive. Thus, cement producers are always taking steps to improve overall operations/design/costs in order to improve their bottom lines. Accordingly, decisions about whether to make significant investments in energy efficiency measures and the nature and scope of such investments directly impact a cement facility’s competitive position in relation to other California cement producers and in relation to imports from non-California sources.

Despite having received comments from CSCME regarding these confidentiality issues,¹⁴ CARB recently published a graph with individual emissions intensities of the nine California cement plants.¹⁵ Although the individual plant names were not specified, CSCME respectfully notes that CARB should not have released this sensitive information with this level of particularity, because the data for the California cement industry include only nine plants. Making public any additional information would likely enable industry participants to identify particular plants from this emissions intensity graph.

¹² CARB Resolution 10-42 (Dec. 16, 2010) at 4.

¹³ *Id.* at 11.

¹⁴ See Letter from CSCME to Chairman Mary Nichols (July 9, 2010) at 3-9 (expressing concern about the possibility of information in Assessment Reports being made public).

¹⁵ See Appendix B to the July 2011 Discussion Draft: Development of Product Benchmarks for Allowance Allocation, at 17.

CARB noted at its July 15, 2011 workshop that it is “seeking comment on confidentiality of firm-level allocation.”¹⁶ If firm-level allocation information were made public, competitors would be able to calculate several key measures via the following allowance allocation formula:

$$A = O \times B \times a \times C$$

Where,

A = the quantity of allowances allocated to a facility in a given year

O = an entity's output

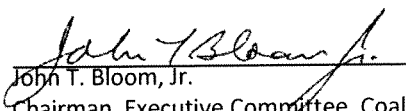
B = an industry GHG intensity benchmark

a = the transition and leakage assistance factor, which is based on an industry's leakage exposure

C = the cap adjustment factor, which declines in proportion with the economy-wide cap.

Of the five parameters in the formula, three will be a matter of public information: (1) the industry benchmark, (2) the assistance factor, and (3) the cap adjustment factor. Accordingly, if CARB were to publish the quantity of allowances allocated to each facility, competitors will be able to calculate an individual facility's output, which is closely-guarded competitive information. Furthermore, by combining a facility's output with its emissions data as published under the Mandatory Reporting Requirement, competitors will also be able to calculate an individual facility's GHG intensity and, by extension, its per unit GHG cost disadvantage relative to both in-state and out-of-state producers. Therefore, CARB should maintain the confidentiality of firm-level allocation information and should ensure that appropriate measures are in place to safeguard this sensitive information.

Sincerely yours,



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¹⁶ See slides from July 15, 2011 Workshop, “Proposed Change to the Mandatory Reporting & Greenhouse Gas Cap-And-Trade Regulations,” at slide 34.