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October 22, 2018

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

### Subject: CSCME's Comments on Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation

Dear Ms. Nichols:

The Coalition for Sustainable Cement Manufacturing and Environment ("CSCME"), a coalition of all five cement manufacturers in California,<sup>1</sup> provides these comments on the California Air Resources Board's ("CARB's") Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation and Initial Statement of Reasons ("ISOR"), which were released on September 4, 2018 and will be considered by CARB at a public hearing on October 25, 2018.

#### I. CSCME SUPPORTS CARB'S PROPOSED ASSISTANCE FACTOR FOR THE CEMENT INDUSTRY

CARB proposes to maintain the cement industry's assistance factor at 1.0 through 2030. CARB's proposal is consistent with AB 32 and AB 398, which require that measures to reduce greenhouse gas ("GHG") emissions are implemented in a manner that minimizes leakage. It also complies with the requirement under AB 398 to "set assistance factors for allowance allocations commencing in 2021 at the levels applicable in the compliance period 2015 to 2017, inclusive."

CSCME supports CARB's proposal to maintain the cement industry's assistance factor at 1.0 through 2030. As CSCME has extensively documented in prior comment letters, the California cement industry has an exceptionally high risk of leakage due to a unique combination of factors. This exceptionally high risk of leakage will persist in the absence of a mechanism (e.g., an incremental border carbon adjustment) that treats domestically-produced cement and imported cement similarly with respect to carbon compliance obligations and costs. Unless and until such a mechanism is put into place, an assistance factor of 1.0 for highly leakage exposed industries, such as cement, is one of the elements of the allowance allocation framework that is necessary to meet CARB's statutory requirement to minimize leakage.

<sup>&</sup>lt;sup>1</sup> The Coalition includes CalPortland Company, Cemex, Inc., Lehigh Southwest Cement Company, Mitsubishi Cement Corporation, and National Cement Company of California Inc. There are ten cement plants located in California, eight of which are currently operating.

### II. CSCME PROVISIONALLY SUPPORTS CARB'S PROPOSAL TO APPLY AN ALTERNATE CAP ADJUSTMENT FACTOR TO THE CEMENT INDUSTRY

# 2.1 An alternate cap adjustment factor is necessary to minimize leakage in industries with a high proportion of process emissions

CARB proposes to apply an alternate cap adjustment factor ("CAF") to industries that are highly exposed to the risk of leakage. The primary rationale for an alternative CAF is that certain industries are vulnerable due to a combination of factors, including a high exposure to carbon prices, a limited ability to avoid those costs through abatement, and an inability to pass those costs on to customers without shifting market share (and GHG emissions) toward out-of-state competitors. Consistent with this rationale, CARB developed an eligibility test based on the following three factors: an industry's emissions intensity (i.e., carbon price exposure), process emissions share (i.e., limited abatement potential), and level of leakage risk (i.e., the risk that passing costs on to customers will result in undesirable environmental consequences). The application of an alternate CAF to such industries is consistent with both current practice and Board Resolution 17-21, which directs staff to, "…evaluate and propose, as necessary, post-2020 cap adjustment factors consistent with the methodology used in the 2015-2017 allocation."

CSCME strongly supports the general practice of applying an alternate CAF to leakage exposed industries and CARB's proposed approach for determining industry eligibility. In the case of the cement industry, process emissions represent the majority of the industry's total GHG emissions. Given that process emissions are a consequence of the chemical process required to produce cement, they cannot be reduced by improving energy efficiency or switching to lower carbon fuels. As a result, the cement industry's ability to reduce its GHG intensity is severely limited, especially in comparison to other industries. An alternate CAF acknowledges these unique constraints and addresses them in a targeted and equitable fashion.

## **2.2** To achieve its intended purpose, the alternate CAF should be set individually for each industry based on its unique process emissions profile

CSCME believes that CARB's proposed approach to setting and applying the alternate CAF trajectory to individual industries could be substantially improved from both a technical and policy perspective. Specifically, CARB proposes to apply a uniform alternate CAF to all industries who meet the eligibility test, regardless of the degree of leakage exposure or specific proportion of process emissions. This one-size-fits-all approach may have been unavoidable when CARB initially implemented alternate CAFs at the beginning of the cap-and-trade program, because it lacked sufficient data at the time to determine the proportion of process emissions in each industry. However, as demonstrated by the methodology used in the ISOR to determine an industry's eligibility, CARB now has several years of verified emissions data that allows it to calculate the share of process emissions across all industries subject to the mandatory reporting requirement. CARB should use this data to develop a more precise and appropriate alternate CAF for each industry that meets the eligibility criteria.

The process of establishing industry-specific alternate CAFs is straightforward – CARB should simply scale the annual decline in the standard CAF based on each industry's actual share of process emissions. Specifically, the alternate CAF for each qualifying industry would be calculated by multiplying the annual rate of decline in the standard CAF (3.4 percentage points) by the share of combustion emissions (i.e., 1 minus the share of process emissions) in a given industry. Under this approach, an industry with 90% process emissions would receive a CAF that declines at a lower rate (0.34 percentage points per year) than an industry with 70% process emissions (1.02 percentage points per year), which in turn would receive an alternative CAF that declines at a lower rate than an industry with 50% process emissions (1.70 percentage points per year). This approach is both logical and intuitive because it only applies the CAF decline to the proportion of combustion-related emissions.<sup>2</sup>

Finally, CSCME respectfully requests that CARB calculate an industry's share of process emissions and alternate CAF on an annual basis, using the most recent three years of verified emissions data available. This will ensure that short-term fluctuations in an industry's emissions profile do not have undue influence on its alternate CAF and that industries are not unfairly penalized for making meaningful reductions in their combustion emissions over time, which will necessarily result in a higher share of process emissions.

This approach to calculating alternate CAFs for eligible industries has several notable advantages. First, it is more consistent with CARB's underlying policy rationale for establishing alternate CAFs: that an industry with a relatively higher share of process emissions will have relatively fewer technologically feasible (or cost-effective) opportunities to reduce their GHG emissions intensity in response to carbon price signals. Second, it would further demonstrate that CARB is taking actions to minimize the risk of leakage, particularly as this risk escalates with the decline in allowance allocations to high risk industries. Finally, it would further demonstrate that CARB is adapting the program to incorporate new and more precise data as it becomes available.

## III. CARB MUST DO MORE TO MINIMIZE THE RISK OF EMISSIONS LEAKAGE IN THE CALIFORNIA CEMENT INDUSTRY IN THE LONG TERM

CARB's proposed approach to allowance allocation in the post-2020 program is a step in the right direction with respect to minimizing leakage in the cement industry in the near term. However, CARB must do more to minimize the risk of emissions leakage in the California cement industry in the long term.

<sup>&</sup>lt;sup>2</sup> Although this approach would exempt process emissions from the CAF component of the allowance allocation framework – reflecting the significant barriers to reducing process emissions in industries like cement with technically mature production processes – companies' overall compliance obligation would still cover process emissions, thereby preserving the incentive to find innovative ways to reduce them.

# **3.1** Future changes to the cement industry benchmark should not change the current direct emissions portion of the current benchmark

Allowance allocation remains a critical tool for minimizing the risk of leakage. The overall allocation rate for an industry is a function of three factors: (1) the product benchmark; (2) the assistance factor; and (3) the CAF trajectory. The proposed regulation only addresses two of those factors (i.e., the assistance factor and the CAF). CSCME understands that future rulemakings may incorporate indirect emissions into the allowance allocation framework, which may include a change to industry benchmarks. CSCME urges CARB to ensure that any changes to industry benchmarks do not result in a reduction of the direct portion of the current benchmark, which would effectively devalue any prior emissions-reducing investments and undermine the leakage prevention provided by other components of the allocation framework. The California cement industry looks forward to working with CARB during the upcoming rulemaking process to ensure that the approach to incorporating indirect emissions into the allowance allocation framework is sound and sustainable and makes use of the best available data.

# **3.2** The risk of leakage will grow as the allowance allocation rate approaches the cement industry's technically and economically feasible limit on emissions reduction

Other measures that complement the allowance allocation framework will be necessary to minimize leakage in the cement industry. Ultimately, emissions leakage is a function of the difference in obligations between in-state producers and imports. A declining CAF of any magnitude effectively guarantees that such differences will grow over time, particularly in the context of increasing foreign excess cement capacity and the lack of meaningful carbon costs imposed on out-of-state cement producers. The irreducible and unalterable nature of process emissions means that the cement industry's envelope of technically feasible opportunities for reducing overall emissions is limited and will only grow more limited over time.<sup>3</sup> For these reasons, the current trajectory of the overall allowance allocation rate for the cement industry will increase the risk of leakage in the cement industry in each year of the program as it moves closer to a level that is both practically and economically unattainable due to the technical and operational limitations associated with process and deep combustion emissions reductions.

Accordingly, CSCME urges CARB to adopt measures that complement the allowance allocation framework to minimize the growing risk of leakage over time. Such measures could include leveling the playing field by applying similar carbon costs to all cement products consumed in California, whether they are

<sup>&</sup>lt;sup>3</sup> One solution to the challenges posed by process emissions that has occasionally been proposed is to install emissions control technologies – chiefly, carbon capture and storage ("CCS") technology – on industrial sources of emissions, including cement plants. Although CCS continues to be an important area for exploration and innovation, its technical maturity and commercial viability for application in the cement industry is extremely limited, with deployment forecasts characterized by long time horizons and significant uncertainty. Industry experts predict one or two small-scale demonstration projects for carbon capture in the cement industry by 2020, with full-scale demonstrations not likely until at least 2030. In addition, the application of CCS in the industrial sector faces additional challenges due to the combination of high technology costs and robust international competition in commodities markets, resulting in additional cost pressures and leakage risk for the implementing industry.

produced domestically or are imported (e.g., an incremental border carbon adjustments).<sup>4</sup> It could also include measures that limit compliance costs for the cement industry (or other high-risk industries) during carbon price spikes (e.g., industry-specific price ceilings).

In short, CARB's proposed framework guarantees that the overall allowance allocation rate for every industry will continue to decline over time. As a result, the allowance allocation rate for a given industry will approach a level that is not technically or economically achievable, will increase cost differentials between domestically produced and imported products, and will necessarily exacerbate the risk of emissions leakage. This scenario is likely to occur more quickly for certain industries (i.e., those with substantial process emissions) than others, and the unique nature of the cement industry means that it will be at the highest risk over time. Accordingly, CSCME strongly recommends that CARB begin considering other measures that can effectively complement the allowance allocation framework and expand the agency's toolbox with respect to minimizing emissions leakage.

### IV. CONCLUSION

CSCME appreciates the extensive work that CARB has invested in the development and implementation of the Cap-and-Trade program, particularly in taking the time to understand the unique and increasing risk of leakage for the California cement industry. As noted above, CSCME supports CARB's proposed assistance factor for the cement industry but encourages CARB to develop a more precise alternate CAF based on actual data for each industry. Finally, CSCME looks forward to working with CARB in future rulemakings to ensure that the Cap-and-Trade program minimizes leakage for the cement industry over the long term.

Sincerely yours,

John T. Bloom, Jr. Chairman, Executive Committee Coalition for Sustainable Cement Manufacturing & Environment

CC:

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<sup>&</sup>lt;sup>4</sup> See, e.g., California Air Resources Board, California's 2017 Climate Change Scoping Plan (November 2017) at 73 (highlighting the following potential additional action: "Evaluate and design additional mechanisms to further minimize emissions leakage in the Cap-and-Trade Program (e.g., border carbon adjustment)").