September 24, 2007

Mr. Tom Cackette Chief Deputy Executive Officer

Mr. Bob Fletcher and Mr. Mike Tollstrop California Air Resources Board 1001 "I" Street Post Office Box 2815 Sacramento, California 95812

Subject: Initial Comments on the California Air Resources Board Draft Expanded List of Early Action Measures Published September 7, 2007

Dear Mr. Cackette, Mr. Fletcher, and Mr. Tollstrop:

As members of the California cement industry, we would like to share our initial thoughts and concerns about the draft "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration" (ARB's EAM Report, September 2007). We look forward to working closely with the California Air Resources Board ("ARB") in the development of effective, efficient, and equitable regulations. However, there are a number of roadblocks in the way of ARB's development of rules that achieve the goals of the proposed early action measures for the cement industry ("Cement EAMs") while maintaining the safety and affordability of cement supplies necessary to California's economic and environmental objectives.

If ARB elects to develop the Cement EAMs, it faces significant rulemaking obstacles. Several of these obstacles ARB already identified in its September 7 EAM Report:

- "AB 32 requires that all GHG reduction regulations adopted and implemented by the Board be technologically feasible and cost-effective." (EAM Report, p. 6) The EAM Report further notes that "these are critical considerations" and that ARB "must address these factors fully as detailed proposals are developed." As discussed further below, these considerations have not been addressed for the Cement EAMs.
- "[ARB's] analyses have not progressed to the point where all impacts (e.g., technical feasibility, cost-effectiveness) can be defined conclusively." Unless and until these requirements are satisfied, any rule adopting an EAM would be arbitrary. Indeed, the EAM Report acknowledges this by recognizing that if "additional information or analysis reveals that a particular measure cannot meet one or more of these requirements, it will not be put into effect." (EAM Report, p. 6)

• Legitimate development of any EAM requires "an open public process that includes interaction with interested stakeholders." (EAM Report, p. 6) We agree that such process is necessary, both to satisfy ARB's legal requirements as well as ensure that ARB "is informed by the best and most up-to-date information." (EAM Report, p. 16)

The two Cement EAMs - energy efficiency and blended cements - do not meet these criteria, as the information summarized in this letter demonstrates. Moreover, the incongruity of the cement measures assignment is also evident when compared to the assignment of other measures made by ARB under the criteria that ARB specified.

Additionally, pursuit of the Cement EAMs must satisfy several more general requirements:

- AB32 requires ARB to use the best available economic and scientific information in its regulatory decision making. In many respects, the September 7 EAM Report uses presumptions rather than actual information to support its recommendations.
- Any regulatory measure must comply with the Administrative Procedures Act and all other applicable state and federal laws applicable to environmental rules such as EAMs.
- The California APA mandates a full explanation of an agency's rationale for rulemaking. The September 7 EAM Report provides no explanation for reversing its earlier decision that cement measures were not appropriate for EAMs.

ARB's ability to satisfy the baseline legal requirements outlined above requires development of sufficient scientific and economic information that validates the assumptions ARB has made in the EAM Report. However, with the exception of ARB's correct determination that fuel switching should be deferred to the scoping plan, the information we have identified to date contradicts rather than supports ARB's assumptions. We outline these contradictions in the remainder of this letter.

Energy Efficiency EAM

In the case of the cement energy efficiency proposed EAM, we have the following concerns:

- The GHG reductions under the energy efficiency EAM are very small, namely 0.1 and 0.2 million metric tons of CO₂ per year.
- As the EAM Report states, ARB "lacks sufficient data to estimate potential CO2 reductions from California facilities." (EAM Report, B-66) Thus, even those small

quantities of CO_2 reduction assumed by ARB are uncertain because the measures are defined based on a review of cement plants across the United States, and it is not clear to what extent the measures have already been implemented by California cement plants.

- There is significant uncertainty about whether the energy efficiency measures will be cost-effective, given the very high capital cost of each measure, especially compared to the small reduction achieved.
- The EAM Report assumes that "[t]his measure is technically feasible," (EAM Report, B-67). However, the report provides no information to support this assumption, particularly given the Report's recognition that its nationwide data may not accurately describe actual circumstances in California.

Given the small magnitude of the achievable emission reductions, the unknown technical feasibility, and the uncertain cost-effectiveness, the energy efficiency measure should be postponed for consideration under the scoping plan.

Deferral would certainly be more consistent with ARB's decision on similar measures. For example, the energy efficiency measure in the petroleum sector has been assigned to the list of measures awaiting consideration under the scoping plan. Energy efficiency measures in various industrial sectors all require detailed study, and should all be evaluated simultaneously during the scoping plan.

Another reason for deferring consideration of a cement energy efficiency measure to the scoping plan is that this measure must be considered in coordination with all other potential changes to the cement plant under the scoping plan. Given the potential conflict between the early action measures and other measures undertaken as part of the scoping plan and given the high transaction costs whenever new equipment is permitted and installed in California, it does not make sense to make two rounds of changes to the cement plant equipment. Instead, the list of early action measures should be confined to those that will make sense **no matter what** happens with the scoping plan.

Indeed, the other measures that were identified by ARB in Table 1 of the September 2007 report as additional early action measures **do** make sense based on this criterion of not conflicting with the scoping plan. The other measures identified as additional early actions are all measures relating to refrigerants, anti-idling, and nitrogen land application, which are either extensions of existing regulatory programs, or involve unique and narrowly defined sectors that are unlikely to conflict with the scoping plan.

Therefore, from the point of view of consistency among the assignments to the various lists, the cement energy efficiency proposed EAM **does not** belong on the EAM list.

Blended Cements EAM

The blended cements proposed EAM faces numerous technical hurdles, as ARB itself identified in the EAM report, including, but not limited, to whether the measure can be accomplished in the time specified. However, unless this and other, potentially more significant hurdles can be overcome in the limited time specified, pursuing blended cements as an EAM is not feasible.

These additional hurdles include:

- There is already extensive use of cement substitutes and this use has not yet been well characterized, as the EAM Report recognizes. (EAM Report, B69-B71). Hence, mandating specific levels of substitution may not produce any increase in substitution rates, such that it may be difficult to detect the benefits of this measure. The cement industry would like to work with ARB to help evaluate current use and create procedures to track potential increases in substitution rates.
- There are technical barriers to using blended cements because of California-specific performance standards set by Caltrans and others, and changing those standards has in the past required years of study and negotiation. While the EAM Report states that Caltrans is "devoting considerable staff resources" to evaluating blended cements, it does not address the consequences if the necessary timetable exceeds ARB's assumption that these measures can be accomplished in 18 months.
- Cement blending occurs primarily at California's ready-mix concrete facilities, not at its cement plants. However, the ready-mix facilities are not included in the draft mandatory reporting regulations, and would need to be included before GHG credit could be taken for blended cements.

Therefore, although blended cements holds promise as a cost-effective measure and does not have the same limitations regarding conflicts with the scoping plan as the cement energy efficiency proposed EAM does, there are still significant difficulties to be worked out on the blended cements measure.

Additional Concerns

Clearly, the issues presented in this letter are only the first step in resolving the roadblocks facing ARB with respect to the Cement EAMs. ARB's June 2007 report indicated that the cement industry measures were being reserved for consideration under the scoping plan and that consultations would begin at the end of 2008. Not until the September 7 Report was issued did we learn of the specifics of ARB's proposed measures. Thus, the approximately two weeks allowed for comments is hardly enough time for the cement industry to start collecting the necessary information, much less provide complete comments.

We have consequently focused our comments on the issues presented by assignment of the Cement EAMs to the EAM list, and can provide only partial comments regarding the technical feasibility and cost effectiveness of the proposed measures. We fully intend to provide more detailed and thorough discussion on the specifics of technical feasibility and cost effectiveness in subsequent meetings and correspondence. However, we believe the arguments presented in this letter explain why the postponement of consideration of the cement EAMs to the scoping plan remains the most effective approach, where the technical feasibility and cost effectiveness issues can be evaluated in greater detail.

Such postponement is necessary to avoid unintended consequences that ARB rulemaking would provoke. Among these consequences would be destabilization of the security and affordability of California's cement supply. Unlike other industrial sectors in California, cement manufacturers cannot pass along increased costs to their customers. Thus, uncoordinated increases in the regulatory burden imposed on California's manufacturers would artificially shift the market toward cement manufactured elsewhere, creating the leakage problem AB32 requires ARB to avoid.

In furtherance of that aim, we would like to request a meeting as soon as possible with ARB staff involved in the cement measures assigned to the EAM list. We are continuing to collect more detailed technical information in preparation for this meeting.

Sincerely yours,

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