

COALITION FOR SUSTAINABLE CEMENT MANUFACTURING & ENVIRONMENT  
1029 J Street, Suite 300, Sacramento, CA 95814, (916) 447-9884

December 8, 2010

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

**Subject: Comments on the ARB Mandatory Reporting Regulations for Quantifying Emissions from Biomass-Containing Fuel Mixtures that are not 100% Biomass**

Dear Ms. Nichols:

The purpose of this letter is to provide comments on the California Air Resources Board (ARB) AB32 mandatory reporting (MR) draft regulation issued October 28, 2010 (specific sections identified below), which defines procedures to be used for quantifying emissions from biomass-containing fuel mixtures that are not 100% biomass in required annual reports. We are requesting that ARB review this letter (and the earlier correspondence referenced in this letter), provide a response, and, if the changes are acceptable, include the specified changes in the final version of the AB32 MR rules. Without the changes requested in this letter, it will be almost impossible for cement companies to receive biomass credit for using waste tires, which is one of the important compliance pathways with the AB32 cap & trade rules.

Please note that this letter replaces the earlier letter on the same topic that was submitted by CSCME on November 19, 2010, prior to the issuance of the final federal mandatory reporting regulations, which occurred on November 22, 2010. In the present letter, the same three requests are included, but the format has been changed to propose revisions to the AB32 MR draft regulations issued October 28, 2010, rather than to the August 2010 draft version of the federal MR regulations (given that the August 2010 draft no longer applies and that it is too late to get changes incorporated in the federal MR regulations at this point, at least until the next round of changes, which has not been scheduled yet). The present letter formats the 2<sup>nd</sup> request in terms of inserting language into the AB32 MR regulations granting an exception from certain provisions in the federal MR regulations relating to determining biogenic CO<sub>2</sub> emissions from combustion of biomass mixtures

CSCME is providing this letter to address the following issues in the AB32 cap & trade and AB32 MR draft regulations issued October 28, 2010:

- 1) Identification of fuels without a compliance obligation (95852.2): Section 95852.2 of the draft cap & trade regulation currently lists "solid waste materials" but does not state that this includes waste mixtures that are not 100% biomass and also does not provide a test method for determining biogenic content.

- 2) Method for determining biogenic content of biomass mixtures (section 95115(e) of AB32 MR draft, which references 40 CFR §98.33(e)(3) of federal regulations): Changes are requested to the AB32 MR language to allow for the following (see further details below):
  - Fuel sampling in lieu of exhaust sampling
  - Acceptance of fuel mixtures with fuels containing biomass where the biomass content of the biomass-containing fuel is 5% or more (regardless of biomass content of the fuel mixture). Note that this sub-item is mentioned for completeness only, because this limitation was included in the earlier version of the MR rule. Given that the current version of the AB32 MR rules does not include this limitation, there are no rule language changes associated with this sub-item.
  - Representative fuel sampling will consist of weekly fuel sampling and monthly composites of weekly fuel samples (which is consistent with Tier 3 of the federal MR rules)
- 3) Weekly fuel throughput recordkeeping: The current language of the proposed modified AB32 MR rule requires weekly recordkeeping for fuel consumption in section 95103(l), and we are requesting that ARB clarify that this requirement is not intended for facilities that are determining fuel throughput using vendor invoices and inventory measurements.

Each of these three issues is discussed in turn below.

**Item #1--Identification of fuels without a compliance obligation:**

The following change is requested to the current rule language in the proposed AB32 MR rules:

95852.2 (a)(1) Solid waste materials, including the biogenic content of solid waste materials that are not 100% biomass, as determined by methodology specified in ASTM D6866, based on exhaust sampling or fuel sampling (and fuel usage recordkeeping) at the specified frequency

**Item #2--Method for determining biogenic fraction of biomass mixtures:**

We are requesting that ARB modify the AB32 MR language to grant an exception to the federal MR requirements for determining biogenic CO<sub>2</sub> emissions from combustion of biomass mixtures as follows (see details further below):

- Biomass sampling may be conducted on the fuel rather than the exhaust.
- Representative fuel sampling will consist of collecting weekly fuel samples and preparing a monthly composite of the weekly samples for analysis.

CSCME submitted a letter to ARB on the topic of biogenic content determination on February 6, 2009 (see attached), received an acknowledgment letter from ARB on March 25, 2009 (see attached), and conducted a call with ARB staff on April 20, 2009. During the call, ARB agreed to the proposed changes in facility sampling practices but indicated that no rule language changes were needed to proceed with the practice changes. In the 2010 reporting (for 2009), California facilities using tires employed the agreed upon alternative methods, and this is the basis for the emissions reported in those years. At this time, we would like ARB to intervene with EPA to gain their acceptance for the above modification to the procedures for measuring

biogenic content because this modification is necessary to allow accurate measurement of biogenic content for tires at cement plant. Without the proposed modification to the procedures, it will likely not be possible to take credit for the biogenic content of tires because of the inherent infeasibility and inaccuracy of the exhaust sampling procedure for that situation.

The following is a summary of the key arguments used in the February 6, 2009, letter to ARB:

- The biomass content associated with tires as a portion of the overall fuel mixture used in cement kilns is a function of two variables:
  - Waste tire usage: This is the usage of waste tires as part of the overall fuel mixture during the period (e.g., monthly), which is measured by tire throughput recordkeeping using vendor invoices and inventory measurements for that period (as used for other solid fuels)
  - Waste tire biogenic content: This is the average biogenic content of the waste tires during the period (e.g. monthly) for which the usage data record is entered, based on fuel sampling involving multiple sampling events, composite sample preparation, and lab analysis of composite fuel samples for biogenic content.
- The proposed approach for reporting biogenic content using fuel usage recordkeeping, measuring biogenic content from fuel samples instead of exhaust samples and implementing the procedures specified above to obtain representative tire samples, is consistent with the approach used for pure biomass (which is based on throughput records) and has the following additional benefits:
  - The proposed approach is more accurate because the waste tire usage as a portion of the overall fuel mixtures is measured directly, instead of inferred from exhaust sampling over time.
  - Measuring the biogenic content on fuel samples rather than exhaust samples makes the measurements more accurate because the biogenic content is being measured on a less diluted sample.
  - The proposed method avoids the feasibility issues associated with the exhaust sampling, relating to measurements at low concentrations and collecting samples over long sampling times (both of which are challenging and may not be feasible).
  - In addition, sample representativeness is assured by the proposed method for tire sampling.

The requested modifications to the AB32 MR language regarding determination of biogenic CO<sub>2</sub> emissions from combustion of biomass are as follows:

95115

(e) *Procedures for Biomass CO<sub>2</sub> Determination.* When combusting MSW or any other fuel for which the biomass fraction is not known, the operator must follow the procedures specified in 40 CFR §98.33(e)(3) to specify a biomass fraction, except as provided below.

- (1) In lieu of following the procedures specified in 40 CFR §98.33(e)(3) to specify a biomass fraction, the operator may follow the alternative procedures in paragraphs (e)(1)(i) through (e)(1)(iii) of this section to determine the annual biogenic CO<sub>2</sub> emissions from the combustion of a partially biogenic fuel where these alternative procedures are feasible:
  - (i) Use an applicable CO<sub>2</sub> emissions calculation method in this section to quantify the total annual CO<sub>2</sub> mass emissions from combustion of the partially biogenic fuel.
  - (ii) Determine the relative proportions of biogenic and non-biogenic CO<sub>2</sub> emissions in the partially biogenic fuel on a monthly basis using the method specified in paragraph (e)(1)(ii)(A).
    - (A) Determine the biogenic portion of the CO<sub>2</sub> emissions from combustion of the partially biogenic fuel using ASTM D6866-08 Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis. Perform the ASTM D6866-08 analysis at least once in every calendar month in which the partially biogenic fuel is combusted in the unit. The operator shall collect weekly samples of the fuel. A portion of each weekly sample shall be combined to form a monthly composite sample. The monthly sample shall be homogenized and well mixed prior to withdrawal of a sample for analysis. Separate the total annual CO<sub>2</sub> emissions from combustion of the fuel into the biogenic and non-biogenic fractions using the average proportion of biogenic emissions of all samples analyzed during the reporting year. Express the results as a decimal fraction (e.g., 0.30, if 30 percent of the CO<sub>2</sub> is biogenic).
  - (iii) Determine the annual biogenic CO<sub>2</sub> mass emissions from combustion of the partially biogenic fuel by multiplying the total annual CO<sub>2</sub> mass emissions from combustion of the partially biogenic fuel by the annual average biogenic decimal fraction obtained from paragraph (e)(1)(ii).

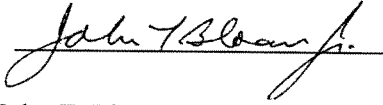
**Item #3--Weekly fuel throughput recordkeeping:**

The requested modifications to the AB32 regulatory language regarding weekly fuel throughput recordkeeping are as follows (note, items added are in bold font):

§95103(l) *Weekly Fuel Monitoring*. In addition to the requirements specified in 40 CFR §98.3(g)(5), as a part of the GHG Monitoring Plan the operator must monitor fuel measurement equipment and maintain records of its proper operation by recording fuel consumption quantities at least weekly, where such equipment is used to calculate GHG emissions. The records of fuel consumption must be sufficient for the application of the missing data substitution procedure in section 95129(d)(2) in the event that the use of that procedure becomes necessary. **The requirements of this paragraph do not apply to fuels for which throughput is determined from fuel supplier invoices and inventory measurements.**

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Sincerely yours,

A handwritten signature in cursive script, reading "John T. Bloom, Jr.", written over a horizontal line.

John T. Bloom, Jr.  
Chairman, Executive Committee, Coalition for Sustainable Cement Manufacturing & Environment  
Vice President & Chief Economist, U.S. Operations, Cemex

CC:

*James Goldstene, California Air Resources Board*  
*Kevin Kennedy, California Air Resources Board*  
*Doug Thompson, California Air Resources Board*