CALCIMA

California Construction and Industrial Materials Association

April 4, 2025

Comments to Air Resources Board re March 13 workshop re baseline emissions methodology and reporting

To Air Resources Board,

The California Construction and Industrial Materials Associations offers comments based on the information presented and questions posed at the March 13 workshop for AB 2446.

CalCIMA is a trade association for aggregate, ready mixed concrete, asphalt, and industrial material producers in California. The member companies produce the products that build the state's public and private infrastructure, including homes, apartments, buildings, schools, and hospitals. The companies operate 500 production facilities throughout the state.

As you may recall, we conducted a survey of ready mixed concrete producers earlier this year for the AB 2446 scientific panel. It addressed what is currently happening to provide lower carbon concrete, where challenges remain, and opportunities for the future. We hope this was helpful and would be happy to answer any questions.

Overall

Consistency Among Agency Programs. To the extent possible, we encourage the Air Resources Board to remain consistent with other state programs and standard practices for collecting greenhouse gas (GHG) emissions data. This includes aligning as much as possible with the embodied carbon standards in the CALGreen Building Code. These are already in effect and provide a substantial and ongoing means to achieve carbon reductions. In addition, they provide options through either a wholistic (whole building life cycle assessment) construction viewpoint or by individual materials. In addition, they offer "reach" and "voluntary" options to achieve additional reductions and stimulate innovation.

Likewise, we encourage consistency with standards and programs of other state agencies, including Caltrans' EPD program, Housing & Community Department, Division of State Architect, and Office of Statewide Health Planning & Development, as well as other statutory requirements, such as SB 596 re cement. Consistency among state programs will facilitate economies of scale and processes to manufacture low carbon materials.

Consistency Among Carbon Measurement Processes. The environmental product declarations (EPD) is the correct mechanism to collect data on materials and emissions. It is the standard means and one common for concrete and asphalt producers. There are already established procedures for creating product category rules (PCR) and EPDs and how these are updated continuously, specific to each material. Considerable time and investment have gone into developing these for products and they are already in use to meet public and private commitments. There will be too much disruption in attempting to change the requirements and timing of these processes. Changes to PCRs and EPDs occur on a regular basis through expert technical groups, so there is no need to invent new ones, while still having assurance of continued modernization.

Monitoring

Scope. CARB asks for feedback on the scope for life cycle analysis and boundary for baseline data. It should be kept in mind that manufacturers' EPDs only have data for the A1 – A3 elements. Going beyond that, while potentially useful data, is beyond what the manufacturer can and does provide in an EPD.

Regional Data. We support CARB getting realistic baseline data. This is particularly important to do by region of California, since the local materials—aggregates, concrete, and asphalt--produced and made by member companies depend on raw materials that vary in characteristics or availability from area to area and, thus, the carbon reductions that can be achieved. For instance, with concrete, the sources of the rock, sand, cement, and available cement substitutes—fly ash, natural pozzolans, slag, etc.—will all react chemically differently and thus impact how much or how little carbon reduction can be achieved. As such, it is important that carbon thresholds reflect regional differences in California of what is achievable.

Impact of Distance. Also, it should be kept in mind that aggregate, concrete, and asphalt materials have a limited distance they can be transported, either as raw materials before manufacture or afterwards as a manufactured product, which either provides opportunities or limits for carbon reduction unique to each material and area. For instance, to haul aggregate long distances by truck to a concrete or asphalt plant can become prohibitively expensive and with negative GHG consequences. And, concrete, once manufactured, has a standard requirement to be placed within 90 minutes of mixing.

Diverse Operations. Please keep in mind, too, that the production sites are numerous and located throughout California, as many as 500 productions sites in CalCIMA membership. So, there is often no homogenous solution that can be applied across the board, due to all the local variation in materials sources, manufacturing locations, and uses of the materials.

Variety in Specification & Use. It is also important to be able to sort the data relative to the materials' specification and use. This includes the rate at which the materials need

to achieve maturity, strength, and timing and demands related to construction sequencing. Concrete mixes are specified to many different strengths—4,000 PSI, 6,000 PSI, etc. Also, the concrete mix specified for a building pillar may be entirely different from that used for a home foundation.

Data Sources. Fortunately, there are resources to obtain the data. Caltrans has begun collecting EPDs and gathering data. National associations, such as National Stone Sand & Gravel Association, National Ready Mixed Concrete Association, and the National Asphalt Pavement Association house collections of EPDs and conduct benchmarking reports, some of which are beginning to be segmented by region, including within a state.

Accumulated Achievements. We also believe there should be recognition for how much producers have already done to reduce carbon emissions. For instance, concrete manufacturers have been using low carbon cements or cement substitutes, such as fly ash, slag, or natural pozzolan, for years and made great strides in reducing their carbon impact. In fact, from 2014-2021, ready mixed concrete producers reduced their carbon footprint nationwide by over 20%. Similarly, asphalt producers commonly produce asphalt paving materials that are 25% or more recycled materials (the Caltrans standard). Nationally, this reduces GHG emissions by 2.6 million tons annually.

Models for Top-Down Baseline Data. CARB has asked for comments on potential models to develop data from a top down perspective. In general, we believe a bottom-up approach is preferable, based on actual data collected from EPDs and benchmarking data that is currently available and updated regularly. If CARB does use an analytical model, such as USEEIO, there should be a demonstration on how it would be used and what the likely data values would be prior to proceeding.

Reporting

EPDs. The facility-specific Type III EPD is the appropriate mechanism for reporting. In general, there are a large number of EPDs in California from material producers due to the incentives or requirements provided by private entities, like LEED, or public requirements like Caltrans and CALGreen. There are also EPD incentive funds provided through Caltran's Climate Challenge Program, which provides up to $4,500 per plant. Having said that, the EPDs are probably less common among small producers.

Reporting Data & Frequency. Having manufacturers report quarterly to CARB the types and amounts of materials, quantities, and revenue could be difficult. A more common practice is for the manufacturer to supply the construction company contractor an EPD, and then let the contractor report the data to the agency. Furthermore, there could be differences between what is manufactured versus what is used in a building, since a contractor often over orders materials. There would also need to be understanding of how much substitute or recycled material is used in a final product.

Reporting Revenue. Federal anti-trust laws is applied rigorously in regard to material producers. As such, there is much concern about how such data would be submitted, protected, and used. If the goal is to find what constitutes a small business for the industry sector, it seems preferable to follow current state or federal guidelines regarding what constitutes a small business.

EPD Data Less than 2 Years Old. Again, we encourage CARB to follow the standard protocols and practices for EPD collection and data. The standard is that PCRs last for 5 years as well as EPDs. The PCRs are created and updated by knowledgeable technical experts for the materials in question; the process is recognized by international standards. Thus, for CARB to do anything different, would not only disrupt established uses or PCRs and EPDs, but penalize companies that undertook the initiative and expenditure to develop EPDs. CARB should allow a current EPD, developed under the PCR in existent at the time, to be valid. In addition, CARB should continue to allow an EPD be valid based on what the PCRs stipulate, not create new standards or terms.

Environmental Benefits. We are wondering about CARB's statement about EPD information not including adjustments for environmental attributes. While we understand some of this may be not have rigorous statistical data, it does seem appropriate that in the appropriate place and mechanism the environmental attributes of a material should be made known.

Noncombustible Materials. Consider including a provision that emphasizes or quantifies how using noncombustile materials, such as required in the Wildland Urban Interface Builiding Code (Section 7A), will benefit carbon reduction by reducing fires and flammability of structures. This could be an important consideration given the greenhouse contribution from homes and buildings that burn in a wildfire.

Again, these are initial thoughts or questions based on the workshop. We would be happy to discuss further or provide more information.

Sincerely,

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