Coalition for Sustainable Cement Manufacturing & Environment
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March 28, 2025

Ms. Liane M. Randolph
Chair
California Air Resources Board
1001 "I" Street
Post Office Box 2815
Sacramento, California 95812

Subject: The California Cement Industry's Comments on the February 27, 2025 SB 905 Workshop

Dear Ms. Randolph:

The Coalition for Sustainable Cement Manufacturing and Environment ("CSCME") provides these comments on the California Air Resources Board ("CARB") February 27, 2025 SB 905 Public Workshop.

CSCME is a coalition of all five cement manufacturers in California.[1] The California cement industry has a long history of working cooperatively and constructively with legislators and regulators to develop policies that advance the state's climate goals and promote the cost-effective reduction of greenhouse gas ("GHG") emissions in the cement industry while minimizing the risk of economic and emissions leakage. The industry's work with CARB extends from the initial design and implementation of the cap-and-trade ("C&T") program under AB 32, to the amendment and extension of the C&T program under AB 398, to the ongoing efforts to amend the C&T program and develop a cement industry strategy under SB 596.

The California cement industry has a strong interest in the swift and successful implementation of SB 905, especially given that:

- The California cement industry is committed to achieving net carbon neutrality by 2045.
- CCUS will play an essential role in the industry's path to net zero, but deploying CCUS technologies is an exceptionally complicated, costly, long, and uncertain undertaking.
- SB 905 is a crucial first step to unlocking CCUS as a viable option to decarbonize the California cement industry that addresses many of the potential barriers to CCUS deployment that the industry faces.
- CARB should also consider further complementary policies that can help de-risk industry investment in CCUS technology, including:
    - Implementing an incremental border carbon adjustment ("BCA") to put California cement manufacturers on a level playing field with imported cement; and
    - Extending the C&T program through at least 2045 to provide a stable price signal and financial incentive to de-risk industry investment in GHG mitigation.

[1] The Coalition includes CalPortland Company, Cemex, Inc., Mitsubishi Cement Corporation, National Cement Company of California Inc., and Tehachapi Cement, LLC. There are seven cement plants currently in operation in California.

The widespread deployment of CCUS across the California cement industry will be a long process with a slim margin for error. Action is needed now to lay the groundwork for a clear, smooth, and predictable long-term pathway to CCUS deployment that inspires confidence and makes it easier and less risky for all stakeholders to invest the time, energy, and capital needed to achieve deep decarbonization in the California cement industry. Accordingly, the California cement industry strongly encourages the legislature to fully fund the resources needed to implement SB 905 as quickly as possible.

The widespread deployment of CCUS in the California cement industry is essential to achieving net carbon neutrality by 2045.

The California cement industry is widely recognized as a difficult-to-decarbonize sector. This is primarily the result of two factors:

(1) Roughly two-thirds of the California cement industry's GHG emissions are due to the chemical process required to convert limestone into cement clinker.[2] In other words, even if the cement industry reduces the carbon intensity of its fuels to zero, it would only address one-third of its GHG footprint.

(2) Producing clinker requires temperatures in excess of 1,200 degrees Celsius — a similar temperature to lava. These high thermal heat requirements constrain the types of fuel cement manufacturers can use and make it exceptionally hard to electrify the production process.

Accordingly, it is difficult if not impossible to envision how the California cement industry achieves net carbon neutrality by 2045 without the widespread deployment of CCUS. That being said, the widespread deployment of CCUS across the California cement industry is likely to be an exceptionally complicated, costly, lengthy, and uncertain undertaking that will require "running the table" across a range of policy, regulatory, and permitting issues, any one of which can make the difference between success and failure.

The successful implementation of SB 905 is a critical first step to ensuring that CCUS is a viable decarbonization option for California cement manufacturers.

SB 905 represents a crucial first step towards establishing a coordinated and predictable regulatory environment across all facets of the emerging CCUS ecosystem required to minimize the regulatory risks that hold back CCUS investment. In the absence of SB 905, CCUS permitting will require satisfying approval processes under the purview of multiple state agencies with unclear lanes of responsibility and timelines. This regulatory uncertainty substantially increases both the risks and costs associated with CCUS deployment, as potential construction delays not only extend timelines but increase project cost estimates.

SB 905 requires CARB to develop a unified permitting application for CCUS projects, which developers may voluntarily use. Although, conceptually, a unified process has the potential to reduce the uncertainty and costs of lengthy and cascading construction delays associated with the existing permitting process, it will need to be carefully calibrated to ensure that it truly streamlines the process rather than simply adding another requirement that becomes an additional regulatory barrier to timely CCUS deployment. In

[2] See the California Air Resources Board (2024). "GHG Inventory, 2024 Edition: 2000 – 2022"

addition, activism via the permitting process remains a risk that can stretch standard timelines and result in cancelled projects and foregone investment.[3]

That being said, the implementation of a unified permitting application process is a necessary but insufficient step to ensuring the widespread deployment of CCUS in the cement industry. Complimentary policies will be needed to address other barriers, including risk, cost, and competitive dynamics.

In addition to the successful implementation of SB 905, complimentary policies are needed to de-risk investments in CCUS and ensure the viability of the California cement industry in the long-term.

In addition to being difficult-to-decarbonize, the California cement industry is highly exposed to the risk of economic and emissions leakage due to a variety of factors:

(1) Cement imported into California is not subject to the state's GHG regulations, including compliance obligations under the C&T program.

(2) The vast majority of California cement demand is within a short distance of the coast and, therefore, demand can be easily met by imports from jurisdictions with less stringent environmental regulations, including distant nations in Asia.

(3) Cement is a fungible, globally traded commodity that is purchased primarily based on price and, therefore, even relatively small increases in carbon costs (whether due to increases in carbon prices or other regulatory measures) can have a devastating effect on a producer's economic viability.

Establishing a mechanism (e.g., a California border carbon adjustment or similar measure) that levels the playing field with imports of cement that is not subject to similar environmental standards and associated costs will be essential to enabling widespread CCUS deployment.[4] Such a mechanism will close the existing "carbon loophole" for imported cement in California, which is essential to encouraging local producers, policymakers, regulators, investors, taxpayers, and other stakeholders to make the extraordinary efforts and investments needed to make CCUS a reality.

CARB should also take the opportunity presented by SB 905 implementation to address how cement plant emissions that are captured and safely sequestered or utilized will be accounted for under California's C&T program. As stated in the workshop, CARB clearly views CCUS as a means for covered facilities to reduce their obligations; however, the specifics of how a CCUS protocol will be incorporated into the C&T program should be clarified in the near-term to provide investors with the clarity and predictability required to make long-term investments in CCUS.

Finally, extending California's cap-and-trade program through at least 2045 in line with the state's carbon neutrality target will be critical to supporting long-term cement industry investment in CCUS. The cap-

[3] See Friedman, D., Hernandez, J.L. (2015) Holland & Knight. "In the Name of the Environment: Litigation Abuse Under CEQA"

[4] For example, as noted in a letter from National Cement to Governor Newsom, the adoption of a BCA by September 2027 will be essential to proceeding with the Lebec Net Zero project — a first-of-its-kind CCUS project that includes funding of up to $500 million from the U.S. Department of Energy.

and-trade program establishes a clear, escalating price signal that provides a critical incentive and relatively predictable environment for the cement industry as it plans and deploys high-cost, long-term investments in GHG abatement (i.e., CCUS).

Time is of the essence, and fully resourcing SB 905 implementation will be critical to realizing the climate benefits of CCUS deployment as quickly as possible.

As noted during the workshop, the implementation of SB 905 has thus far been substantially under-resourced. Given the importance of CCUS to achieve the state's climate objectives in general and the California cement industry's climate objectives in particular, it is critical that SB 905 is implemented without any undue delay.[5] With that goal in mind, the California cement industry fully supports CARB's budget request with respect to SB 905 and strongly encourages the legislature to fully fund that request in the interest of establishing a clear and predictable regulatory regime for CCUS deployment as quickly as possible.

Conclusion

We look forward to continuing to work with CARB and other stakeholders to ensure the swift and successful implementation of SB 905.

Sincerely yours,

Steve Coppinger
Chair, Executive Committee
Coalition for Sustainable Cement Manufacturing & Environment

CC:

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[5] As demonstrated by the Clean Air Task Force's presentation during the workshop, the widespread deployment of CCUS across the cement industry not only has the potential to meet the state's climate objectives but also generate meaningful health benefits for adjacent communities. For instance, the Clean Air Task Force's analysis suggests that retrofitting operations at the Mojave cement plant with CCUS technology (87% CO_2 capture rate) would virtually eliminate SO_2 and PM emissions and result in little if any change in NO_x emissions.