



**AB 262 - Buy Clean California - www.buycleanca.org
A Level Playing Field For California Cement & Concrete Producers**

For over a decade, companies across the United States and around the world have invested in their manufacturing processes to make them cleaner, more efficient, and less polluting. California manufacturers have helped lead the way, with many in-state facilities making continuous improvements to reduce pollution -- both to remain competitive on a global stage, and to comply with California's world-leading efforts to address climate change.

Unfortunately, while many facilities from other states and nations are making similar investments, they do not face the same pollution reduction requirements as California firms, which must reduce their greenhouse gas pollution.

Buy Clean California (AB 262) levels the playing field for businesses that have invested in manufacturing products with fewer emissions -- regardless of their location. It requires California to consider emissions from the manufacture and transport of materials such as concrete that are used in the construction of infrastructure funded by California taxpayers.

Cement and Concrete Background

As a building material, concrete is the most widely used man-made product in the world. Although the terms "cement" and "concrete" are often used interchangeably, they're not the same thing; cement acts as the binding agent in concrete -- but not all concrete contains cement.

But the greenhouse gas emissions associated with concrete production is primarily a function of the amount of cement it contains.

Cement manufacturers globally and in California have invested in technologies to make cement cleaner.

- On average, cement manufacturing facilities that use more efficient technology and run on cleaner energy can produce nearly 50% fewer carbon emissions per ton as compared to facilities that use less efficient technology and rely on fossil fuels.¹
- Six of California's nine cement facilities have received Energy Star certification since 2010, putting them in the top 25% for energy efficient plants in the country.
- Companies like CEMEX Victorville have installed alternative-fuel handling systems that enable them to use up to 25% alternative fuels.²
- According to the Coalition for Sustainable Cement Manufacturing and Environment (CSCME),³ "A ton of cement produced in California generally has a lower GHG footprint than a ton of cement produced outside of California."

¹ www.iea.org/publications/freepublications/publication/tracking_emissions.pdf

² www.energystar.gov

³ This coalition includes Lehigh Southwest Cement Company, Cemex, Inc., and CalPortland Company.

Buy Clean Act

Why Central Concrete Supports AB 262

Will AB 262 Put Undo Burden On Central Concrete?

NO

- Some may argue that ABA 262 puts an undo burden on companies like ours, or that it will require us to make costly investments.
- In fact, the Buy Clean Act is only catching up to where the industry is today.



- Supplying clean products is not new! More than a decade ago, Central Concrete began engineering low carbon concrete mixes, while also employing operational practices that have earned all of our plants the NRMCA Green-Star Certification. Today, numerous infrastructure suppliers have pursued respective innovations in their market areas.
- Excellent tools to disclose greenhouse gas emissions and formulas to comparatively assess the emissions in the materials' production already exist. In 2012, Central Concrete became the first ready mix company to adopt one of these tools – Environmental Product Declarations (EPDs). Since then, the National Ready Mixed Concrete Association (NRMCA) and various third parties have paved the path to allow a smooth adoption of these all important transparency tools. Across the nation, companies from Martin Marietta to our numerous suppliers, are employing EPDs.

Continued...



Buy Clean Act

Why Central Concrete Supports AB 262

Does It Make A Difference?

YES

- Today, nearly 75% of our mixes are low carbon mixes. Why? Because owners, architects, engineers and contractors demand products that meet rigid performance requirements, while also significantly lowering the carbon footprint of their project.



Did You Know?

The use of Central Concrete's low carbon concrete mixes reduced the carbon footprint of the San Francisco 49ers Levi's Stadium by 23 million pounds. Yes, it makes a difference!

This document was developed by Central Concrete Supply Co., Inc. a business unit of U.S. Concrete. Central Concrete is proud to serve the San Francisco Bay Area. We are committed to meeting the needs of our customers and community by driving innovation, delivering operational excellence and pursuing sustainability strategies that conserve our natural resources and reduce our environmental impact.



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Concrete manufacturers can use a number of methods to produce cleaner concrete.

- According to the California Construction and Industrial Materials Association (CalCIMA), “cement imported to California from Asia [which will be used for concrete mixes] has an estimated 25% more CO₂ emissions.”⁴
- Concrete producers also use blends of cement and other cementitious material to reduce carbon content for concrete by as much as 70%.⁵

Environmental Product Declarations (EPDs) are becoming the national and international standard to quantify the environmental impact of a product.

- EPDs are an international standard for measuring and labeling the environmental impact of products. Akin to a nutrition label for food product, they are science-based and verified by independent third parties.
- The US Green Building Council (USGBC) Green Building Standard uses EPDs to “score” products used in construction.
- The California High Speed Rail Authority requires contractors to submit EPDs for steel, concrete and other products.
- California construction projects like the San Francisco Airport extension require EPDs. The European equivalent of the USGBC LEED program also requires EPDs.

Cement and concrete companies use (EPDs) to meet growing market demand.

- The US cement industry has produced an industry average EPD. According to the industry, “the industry is dedicated to manufacturing a superior product while constantly improving energy efficiency, minimizing emissions, and reducing environmental impacts.”⁶
- Concrete EPDs are increasingly common as reflected in the National Ready Mix Concrete Association’s EPD program, which has already established an industry-wide EPD and has set industry averages at the national and regional levels.⁷
- Several cement and concrete companies, including CalPortland, Central Concrete, and Cemex have EPDs for various facilities.

⁴ www.distancematters.org, A CalCIMA website to “support reducing carbon emissions by thinking globally and acting locally.”

⁵ National Ready Mix Concrete Association Concrete factsheet 2012.

www.nrmca.org/sustainability/CONCRETE%20CO2%20FACT%20SHEET%20FEB%202012.pdf

⁶ https://www.astm.org/CERTIFICATION/DOCS/295.EPD_for_Portland_Cements_-_Industry_Wide_EPD.pdf

⁷ <https://www.nrmca.org/sustainability/EPDProgram/Index.asp>



Frequently Asked Questions About Assembly Bill 262, the Buy Clean California Act

1. What does the Buy Clean California Act (AB 262) do?

Buy Clean:

- Requires the Department of General Services to establish a greenhouse gas emissions standard for certain materials, such as concrete and steel, used in state infrastructure projects. The standard is based on industry averages for the materials as reported on environmental product declarations.
- Requires state agencies and the UC and CSU system to include in bid specifications a greenhouse gas emissions standard for certain materials that is at least as stringent as that set by the Department of General Services.
- Requires contractors who win bids for infrastructure projects to submit environmental product declarations for certain materials to prove that those materials meet the set standard for greenhouse gas emissions.

2. How will contractors who win the bid disclose the emissions data?

AB 262 requires contractors to gather emissions data from their suppliers. Materials manufacturers compile the emissions data using existing methods and standards to produce an Environmental Product Declaration, or EPD. EPDs are used across many industries to ensure compliance with environmental regulations (*see below*).

3. How will this affect greenhouse gas emissions?

AB 262 will deploy California's substantial purchasing power to buy materials, like concrete, glass, and steel, produced by manufacturers who have invested in reducing emissions during the manufacturing process. Such purchases will directly reduce emissions by using lower-carbon products, and indirectly by sending a market signal to manufacturers to reduce their emissions in order to stay competitive in California. To meet bid specifications in a "Buy Clean" marketplace, contractors will select clean manufacturers that generate less climate pollution per unit of product to improve their prospects of winning bids with California agencies.

4. What is an Environmental Product Declaration (EPD)?

An EPD is an internationally recognized environmental impact label, similar to a nutrition label on food. EPDs are developed in accordance with a specific Product Category Rule (PCR) that establishes standardized methods for quantifying the environmental impacts of manufacturing a particular product, from cradle to factory gate. Each product's PCR must follow the principles and framework established by the International Organization for Standardization (ISO), which sets industrial standards worldwide.

EPDs integrate the full process of producing a product or material, from mining and raw materials development, through delivery of materials and manufacturing of finished product. Based on the type of product, EPDs are developed in accordance with a specific PCR, which accounts for the various production methods and establishes a methodology for emissions reporting. The emissions associated with the production activities are then calculated and reported on the EPD.

5. How does a company get an EPD?

Once a PCR is set for a material, such as structural steel, a manufacturer can develop EPDs themselves or contract with an independent consultant. Either way the EPD must be verified by an independent, third-party program operator and publicly posted on the program operator's website. The information about the emissions are presented in an EPD.

6. How will contractors comply with Buy Clean California?

To comply with Buy Clean rules, contractors who win bids for infrastructure projects with the state, the UC system or the CSU system simply need to select materials from manufacturers who offer EPDs for their products and facilities and whose emissions for greenhouse gases is within the range posted on the project specifications. Emissions disclosure is becoming a standard practice in many industries, so a growing number of manufacturers offer EPDs. For instance, the LEED program for green buildings already uses EPDs in their "points" system.

7. What products are covered by AB 262?

Certain materials that are typically bought in bulk for infrastructure projects such as roads, bridges or large buildings are covered by AB 262. These include structural steel, carbon steel rebar, concrete, flat glass, "mineral wool" insulation, brass and iron pipes and pipe fittings, and certain types of large steel pipes.

8. Will this proposal increase the costs of infrastructure construction?

No. Having EPDs is a tiny investment and most material providers are developing or have EPDs for LEED green building projects in the commercial market. In addition, most of the materials covered by Buy Clean are commodities that are generally priced within a narrow band.

9. How does this proposal interact with the cap-and-trade regulation?

Many companies in California have already invested in new technologies and practices to reduce their emissions under cap and trade. A growing number of companies around the world are making similar investment to comply with their own rules and regulations, and to remain competitive. Buy Clean levels the playing field for those firms and creates powerful incentives for the entire market to reduce emissions.

10. Are there any other places or entities employing a Buy Clean policy in procurement?

EPDs are already taking off in the commercial green building market. Large projects in

California such as San Francisco Airport extension are requiring EPDs and the USGBC green Building Standard called LEED v4 uses EPDs to “score” products used in construction. California needs to keep up with the national trend.

Longer term, the California High Speed Rail Authority adopted a sustainability policy in 2013 and recently updated its policy (March 2016), which provides for a wide-ranging set of directives including Sustainable Infrastructure. The policy requires the contractor to submit EPDs for steel and concrete products. EPDs will provide the Authority with the information necessary to select sustainable materials and monitor their collective environmental impact.

In March 2016, the Authority updated its policy to develop a means of scoring construction bids that demonstrate compliance with the Authority's sustainability policy and to develop a baseline of the materials currently being installed for the project to determine their environmental characteristics.

The U.S. Green Building Council's LEED program to recognize sustainable construction requires applicants to submit EPDs to achieve certain points in the LEED scoring. The European equivalent of the LEED program also requires EPDs. And France has a national law requiring products to carry labels on life-cycle analysis for environmental impacts.

Many companies, including Apple, require life cycle analysis of products they procure. The U.S. Navy is among those entities that includes life cycle analysis in procurement.

11. To get an EPD, a manufacturer needs to follow protocol established by the International Organization for Standardization and get an independent third-party verification. How can the integrity of third-party verification be ensured?

Verification is a highly transparent process developed over the last 20 years. All EPDs are developed under ISO standards 14001, 14044, 14025 and the PCR for the product. Like auditors in accounting, verifiers are trained professionals and externally verify work against these standards and must post the verified results publicly for 5 years. In addition, this is a highly transparent process. For example if a manufacturer saw a competitor's EPD seemed out of range, it would be publicly questioned.

12. Are EPDs a complex and costly process?

No. There is an upfront investment and after that, a subscription technology is available that will allow a manufacturer to go online and instantly generate an EPD. This is proven technology in production around the US for concrete manufacturers and can be adopted for steel, cement, doors, windows, walls and other building elements.

An EPD can be developed for a one- time investment and used for 5 years

13. How will this bill impact the California concrete and steel industries?

Some of the largest concrete and steel manufacturers in California support AB262

because they've already invested in cleaning up their operations and know that low-emissions products are good for business and good for the environment.

14. How will this bill impact the California cement industry?

According to the [Coalition for Sustainable Cement Manufacturing and Environment](#) (CSCME), California's cement has a lower greenhouse gas footprint than cement produced outside of California, especially when transportation-related emissions are considered. The industry says that, all else being equal, cement imports from some places out of state result in 25% more emissions than cement produced and consumed in California.

In addition, the cement and concrete industries already reduce emissions in two ways: One, by improving the efficiency of existing clinker production; and two, by substituting other cementitious products with lower embedded greenhouse gas emissions.

15. How do I get more information about Buy Clean?

You can learn more at buycleancalifornia.org. You can also contact Jerome Parra in Asm. Bonta's office. Jerome is staffing the bill. His email address is jerome.parra@asm.ca.gov.