



Portland Cement Association

Richard C. Creighton
President, Government Affairs

January 7, 2003

The Honorable Spencer Abraham
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

The Honorable Christine Todd Whitman
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

The Honorable James L. Connaughton
Chairman
Council on Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

Re: U.S. Cement Industry's Voluntary CO₂ Goal and Associated Climate Program

Dear Sirs and Madam:

On behalf of the Portland Cement Association (PCA) I am pleased to share with you the U.S. cement industry's voluntary goal to reduce CO₂ emissions and the program the industry has devised to implement it. PCA strongly believes that sector-specific voluntary efforts are the most effective means of achieving the objective set by the President's climate change proposal. PCA, like the President, agrees that these approaches are far preferable to the economically punitive measures that would have resulted from adoption of the Kyoto Protocol.

PCA is a trade association representing cement companies in the United States. PCA's membership consists of 45 companies operating 101 plants in 35 states, accounting for more than 95 percent of U.S. cement production. Portland cement is the key ingredient in concrete, a building material essential to our nation's infrastructure.

PCA member companies adopted the voluntary goal in July 2001, as part of the association's continuous environmental improvement program. It is a unit-based goal that, like the President's, allows the industry to simultaneously grow and reduce CO₂ emissions as a function of production.

1130 Connecticut Avenue, NW, Suite 1250
Washington, DC 20036-3925
202.408.9494 Fax 202.408.0877
rcreighton@cement.org

www.cement.org

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To achieve the goal, the industry has developed a three part program that focuses on the production process, the product cement manufacturers produce, and on how the product is applied. While only efforts undertaken under the first two elements of the program will be used to quantify progress towards achieving the industry goal, the third part of the program has the greatest potential for mitigating climate change. PCA has worked closely with various federal agencies to maximize its potential and plans to continue to do so in the future.

Attached please find a document that briefly summarizes the industry's program. Andy O'Hare or I would be delighted to respond to any questions you may have concerning the industry's program or to provide you with additional information. We both may be reached at (202) 408-9494. PCA looks forward to working with you on this program in the future.

Sincerely,



Richard C. Creighton
President, Government Affairs

U.S. CEMENT INDUSTRY CLIMATE CHANGE PROGRAM PORTLAND CEMENT ASSOCIATION

The U.S. cement industry began seriously studying the issue of climate change in the mid-90s and worked with EPA through the Climate Wise Program to develop a CO₂ emissions protocol and a means by which to record emissions reductions through the DOE 1605 (b) program. The U.S. industry was then able to accurately quantify cement industry CO₂ emissions and to begin a process of examining ways to address them. The product of this assessment culminated in the adoption of a voluntary CO₂ emission reduction goal in July 2001. Similar efforts have since been initiated around the world, resulting in the development of a global cement industry greenhouse gas emissions protocol, prepared under the auspices of the World Business Council on Sustainable Development.

Cement Industry Voluntary Goal: A 10% reduction in CO₂ emissions per ton of cementitious product produced or sold from a 1990 baseline by 2020.

The industry is now implementing a three part program to achieve the goal, as described below.

1. Process: reduce emissions through increased efficiency and decreased fuel use.
 - Kiln types: continue conversion from less efficient wet kilns to preheater/precalciner kilns.
 - Demand-side energy management: reduction of electricity and fuel use through the application of more efficient fans, motors, and other items utilized in making cement.
 - Use of alternative fuels and raw materials: use alternatives to conventional fuels and raw materials to reduce greenhouse gas and other pollutant emissions.
2. Product Formulation: produce cement using a lower proportion of calcined materials, thereby reducing CO₂ emissions per unit of product.
3. Product Application: promote the use of concrete as a climate change solution.
 - Energy-efficient structures: commercial and residential structures built with concrete exterior walls to enhance their energy efficiency.
 - Urban heat island mitigation: light-colored concrete absorbs less and radiates more heat than dark materials, whether on pavement, roofs, or other surfaces, thereby reducing ambient temperatures.

- Vehicle fuel efficiency: because of its rigidity, concrete pavement enhances fuel efficiency of vehicles when compared to flexible pavements.¹
- Lifecycle analysis: because of the three applications above, and other benefits, cement-based concrete compares favorably to competing products; these results should be taken into account in product-selection guidance.

PCA and/or its member companies have been and continue to be active in international and domestic efforts to measure and reduce greenhouse gases, such as the following efforts:

- The EPA Climate Wise program (now the Energy Star Program)
- The EPA Climate Leaders program
- The EPA Energy Star program
- The Department of Energy 1605(b) Greenhouse Gas Reporting program
- The World Resources Institute/WBCSD GHG Protocol
- The Pew Center on Global Climate Change
- The WWF Climate Savers program
- The World Business Council for Sustainable Development (WBCSD) report on a sustainable cement industry.

¹ A Canadian study showed that trucks driven on concrete achieved roughly 10% more MPG than those driven on asphalt. The greatest improvements were observed in the summer, indicating that the comparative efficiency of driving on concrete roads would be even greater in the United States and other countries that are warmer than Canada.