

**CALIFORNIA BUILDING STANDARDS COMMISSION
GREEN BUILDING
WORKSHOP
October 30, 2014 - Agenda Item 5c**

**DRAFT EXPRESS TERMS for the 2016
CALIFORNIA GREEN BUILDING STANDARDS CODE,
(CALGreen), PART 11,
CALIFORNIA BUILDING STANDARDS CODE,
TITLE 24, CALIFORNIA CODE OF REGULATIONS**

- **Proposed code language for the 2015 Triennial Code Adoption Cycle**

LEGEND FOR EXPRESS TERMS

1. New California amendments: All such language appears *underlined and in italics*.
2. Repealed text: All such language appears in ~~strikeout~~.
[Information for the reader is bracketed and in red italics]

A5.205.3.10. Low-Global Warming Potential Insulation (Voluntary Measure)

- **Statement of specific purpose, problem, rationale and benefits:**

The **California Air Resources Board** is proposing the following:

Propose new Low-Global Warming Potential (GWP) Insulation code language for inclusion in the 2016 CALGreen Code, Appendix A5, Section A5.205.3.10 Low-Global Warming Potential Insulation.

History:

Polyurethane insulating foam is manufactured with high-global warming potential (GWP) foam expansion agents with GWPs hundreds to thousands of times greater than carbon dioxide. At the time of building demolition or renovation, the high-GWP agents in the insulation are emitted into the atmosphere, adding to global warming.

In August 2014, the United States Environmental Protection Agency (U.S. EPA) proposed that only low-GWP polyurethane insulation foam could be manufactured or sold in the U.S., beginning January 2017 (with the exception of spray foam). As of October 2014, the proposal is still in the process of approval and has not been adopted.

Rationale for proposed code change:

In 2014 California's greenhouse gas emissions from polyurethane insulation foam are estimated at more than 7 million metric tons of carbon dioxide equivalents (MMT_{CO₂E}), between one and two percent of all greenhouse gases from all sources and equivalent to all the annual greenhouse gas emissions from 1.5 million cars. The insulation industry is beginning to transition to low-GWP foam expansion agents, which have been found to be efficient and cost-effective. Adding a voluntary measure for low-GWP insulation in the CALGreen Code should accelerate the transition to using low-GWP insulation.

If the current U.S. EPA proposal to require low-GWP polyurethane insulation is approved, then the CALGreen Code voluntary measure would only apply to spray foam, as all other polyurethane foams would be required to be low-GWP, beginning January 2017.

A5.205 Building Envelope

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A5.205.3.10. Low-Global Warming Potential Insulation

Insulation installed in new building construction or existing building renovation shall contain no foam expansion agents with a 100-year global warming potential greater than 25.