

MEMORANDUM

TO: State of Oregon Building Codes Division, Residential and Manufactured Structures Board

FROM: Weblly Bowles, New Buildings Institute

DATE: December 15, 2022

SUBJECT: PP-6 Proponent Absent from 12/22 Hearing

Residential and Manufactured Structures Board,

As the proponent of PP-6, Global Warming Potential Concrete, I regret to inform you that I will not be able to attend the meeting on December 22. However, I request that my statement be read at the meeting prior to discussing the proposal.

Statement:

Oregon concrete generates equivalent annual greenhouse gas (GHG) emissions of 190,000 vehicles. Since residential projects use the second highest volume of concrete, second only to jurisdictional projects, PP-6 puts Oregon on the path to meeting state GHG emission reduction goals while minimizing the impact on concrete suppliers.

Chapter 6, the bulk of the proposal, requires that 75% of all concrete mixes meet a specific carbon dioxide equivalent (CO₂e), also known as GWP, limits for the strengths or a weighted average of mixes. Exceptions are provided for precast, shotcrete, auger cast, driveways, and other flatwork. Project exceptions target concrete use and limit the burden on contractors needing trucks to travel longer distances, damaging the mix.

The GWP limits are 150% higher than the National Ready Mixed Concrete Association's regional industry-wide average GWP values. The high early-strength concrete was given an additional 130% allowance. Compared with over 2,366 Oregon concrete EPDs, 75% meet the values; Compared to Portland's Low Carbon Concrete policy, the proposal's GWP values are about 30% higher, meaning that the proposed values are less stringent than the Portland requirements. The intent is to avoid the highest emitting mixes in residential projects while accepting traditional concrete and minimally impacting the industry.

Adopting this code change proposal will require some residential concrete suppliers to improve their mixes and access federal Inflation Reduction Act funding to develop environmental product declarations (EPDs.) For the GWP values proposed, the product cost is estimated to be nil, with a one-project learning curve for laying concrete.

Unlike operational emissions, which can be improved over the lifespan of a building through deep-energy retrofits and the decarbonization of the electric grid, embodied carbon emissions occur before a building is occupied and cannot be reduced over time. Therefore, addressing embodied carbon in the construction of buildings presents an urgent and valuable opportunity to reduce carbon emissions in Oregon.

Thank you for considering my request.

Sincerely,

A handwritten signature in black ink, appearing to read 'Webly Bowles', with a long horizontal flourish extending to the right.

Webly Bowles, AIA

Senior Project Manager

New Buildings Institute

c: 503.999.7520 or 503.708.8175