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**To:** [CBSC@DGS](mailto:CBSC@DGS); [typ@greenplumstreet.com](mailto:typ@greenplumstreet.com)  
**Subject:** PUBLIC COMMENT on PROPOSED BUILDING STANDARDS - Tien Peng  
**Date:** Monday, May 15, 2023 4:34:56 AM

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#### Commenter Contact Information

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Date: 5/15/2023 12:00:00 AM  
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#### Proposed Building Standard

Title 24 Part #: Part 11  
Section #: Chapter 5 NONRESIDENTIAL MANDATORY MEASURES, 5.409.3 Product GWP compliance – prescriptive path.  
Proposing State Agency: BSC  
This comment is intended for review during: 45-Day Comment Period

Your recommendation based on the criteria of Health and Safety Code Section 18930(a):  
Approve as Amended

In support of your recommendation above, provide the rationale based on the criteria of Health and Safety Code Section 18930(a). If you recommend anything other than approve, cite the criteria in your comment. If you oppose a proposed building standard, offer a solution or alternative for the state agency to consider.

Under Table 5.409.3 PRODUCT GWP LIMITS for Concrete, Ready Mixed footnote 2.

The footnote "2. For concrete, 175 percent of the National Ready Mix Concrete Association (NRMCA) 2021 version 3 Pacific Southwest regional benchmark values are used for the GWP allowed, except for High Early strength." has a slight math error.

NRMCA PSW Benchmark lists the compressive strengths at different ranges than the Table 5.409.3. That is, instead of 2500-3499 psi, the referenced NRMCA benchmarks uses industry data results from the LCA study at 0-2500psi, 2501-3000psi, 3001-4000psi, 4001-5000psi, etc.

- If we looked at the NRMCA PSW benchmark figure for 3499 psi by linear interpolation of 4000psi's 323.49 KgCO<sub>2</sub>e/m<sup>2</sup> value you get 282.97. Multiply that by 175% you should result in 495.2 kgCO<sub>2</sub>e/m<sup>2</sup> NOT the GWP allowed 489 kgCO<sub>2</sub>e/m<sup>2</sup> according to the table.

So essentially at the top of the range (2500-3499) the 489 kgCO<sub>2</sub>e/m<sup>2</sup> allowable value is only 173% of the true NRMCA PSW Benchmark. The 450 value is 175% of the true NRMCA Benchmark value (257). The 566 is 166% of the true Benchmark value (340.03). The 661 is 180% of the true Benchmark value (367.34). The 701 is 189% of the true Benchmark value (370.79). The 799 is 175% of the true Benchmark value (456.43) assuming max 8000psi from the Benchmark.

Either revise the Table values to accurately reflect 175% of the NRMCA Benchmark values or revise the footnote (easier) to the range of percentages (166-189%) of the listed allowable values.

9 Point Criteria Info:  
18930(a) 6