### *AWC DRAFT COOMMENTS ON CALGREEN TO BE SUBMITTED ELECTRONICALLY USING THE DGS ONLINE FORM*

*https://www.dgs.ca.gov/BSC/Rulemaking/2022-Intervening-Cycle/2022-Public-Comments/GREEN-45*

### ITEM 23 Section A5.405, MATERIAL SOURCES

[No change to Sections A5.405.1 through A5.405.2]

A5.405.2.1 **~~Reserved~~**. **Certified Wood Components - Sustainability Standards.**  Provide wood products, for at least 50 percent of the project permanently installed products, that have been certified by independent third parties and labeled as having been produced in compliance with ~~the~~ accepted principles of sustainable forest management. –{The use of r}-[R]ecycled and/or recovered wood products [count towards the 50 percent requirement without needing certification] –{do not need to be certified}-. Comply with one or more of the following [wood sourcing or land management] certifications of wood sustainability:

1. Sustainable Forestry Initiative (SFI).
2. Forest Stewardship Council (FSC)
3. Program for the Endorsement of Forest Certification (PEFC).
4. American Forest Foundation’s American Tree Farm System® (ATFS).
5. Canadian Standards Association’s Sustainable Forest Management System Standards (CSA Z809).
6. Manufacturer’s fiber procurement system that has been audited –{by an approved agency -} as compliant with the provisions of ASTM D7612 as a responsible or certified source.

AWC submits the following changes to the Certified Wood Components proposal, added text in [brackets] and deletions in –{curly brackets}-. These changes are intended to act as clean ups for the intent of this section and include:

* Clarification of how the percentage of recycled and/or recovered wood products count towards reaching the 50 percent requirement.
* Clarification on the inclusion of both sustainable wood fiber sourcing and land management in line with the provisions outlined in 6. ASTM D7612.
* Removal of duplicative language in 6. around approved agency. AWC understands this to be linked to the independent third parties already included in the charging paragraph.

**5.409.2 Whole building life cycle assessment.** Projects shall conduct a cradle-to-grave whole building life cycle assessment [comparison] performed in accordance with ISO 14040 and ISO 14044, excluding operating energy, and demonstrating a minimum 10 percent reduction in global warming potential (GWP) as compared to a reference baseline building of similar size, function, complexity, -{type of construction, material specification,~~}-~~ and location that meets the requirements of the *California Energy Code* currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO-14044, and ISO 21930 or EN 15804, and the software shall conform to ISO 21931, [ASTM E2921-22] and/or EN 15978.

AWC submits the following changes to the whole building life cycle assessment (5.409.2), added text in [brackets] and deletions in –{curly brackets}-.

AWC requests the type of construction and material specification be deleted from all sections on Whole Building Life Cycle Assessment (WBLCA). Buildings intended for end uses such has restaurants, multi-family residential, office buildings, etc. serve the same function for the end users, while being designed with different material specifications and types of construction as identified under the International Building Code. Implementing WBLCA as proposed severely limits the ability of a building project design team to harness the true power of WBLCA to reduce the Global Warming Potential of a building project. This true potential is realized when designers are able to analyze building in a way that incentivizes them to utilize inherently lower embodied carbon materials where they meet the same function and performance outcomes as high-embodied carbon materials.

Removing the requirement of the reference baseline building to have the same material specification and construction type will enable designers to take a holistic view of a building’s embodied carbon and execute smart material selection across multiple Product Categories. This ultimately CalGreen to help designers create buildings with significantly lower carbon footprints., When empowered to compare similarly functioning material across Product Categories, designers may also find novel uses of innovative materials throughout the project. Facilitating material selection across Product Categories can also have cascading positive effects (beyond reduced embodied carbon) on other building systems. For example, designing a mass timber building may result in less material being used for the foundation and energy consumed in site preparation activities (excavation) compared to a steel and concrete type of construction. Including the requirement that the WBLCA reference baseline building must share the same type of construction and material specification limit’s designer ability to leverage WBLCAs to meet CalGreen’s goals of buildings with lower carbon footprints.

We also request the inclusion of ASTM E2921-22 “Standard Practice for Minimum Criteria for Comparing Whole Building Life Cycle Assessments for Use with Building Codes, Standards, and Rating Systems. This standard is used and included in several green building rating systems as a basis for WBLCA comparisons such as ASHRAE 189.1 as well as the US General Service Administration’s P100 “Facilities Standards for the Public Buildings Service” document for design specifications. Inclusion of this standard will align CalGreen with other systems and rating systems available in the US.

**A5.409.2 Whole building life cycle assessment.**Projects shall meet the minimum requirements of Section A5.409.2 for Tier 1 or Tier 2 compliance.

**A5.409.2.1 Tier 1.** Projects shall conduct a cradle-to-grave whole building life cycle assessment meeting the requirements of Section 5.409.2 and performed in accordance with ISO14040 and 14044, excluding operating energy, demonstrating a minimum 15 percent reduction in global warming potential (GWP) as compared to a reference baseline building of similar size, function, complexity, -{type of construction, material specification,}- and location that meets the requirements of all parts of the *California Building Standards Code* currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO-14044, and ISO 21930-2017 or EN 15804, and the software shall conform to ISO 21931, [ASTM E2921-22] and/or EN 15978.

**Exception:** For projects that include building reuse, the reference baseline building shall exclude the reused elements. The percent reduction in GWP shall be achieved through the design and construction of new project elements.

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**A5.409.2.2 Tier 2.** Projects shall conduct a cradle-to-grave whole building life cycle assessment meeting the requirements of Section 5.409.2 and performed in accordance with ISO14040 and ISO 14044, excluding operating energy, demonstrating a minimum 20 percent reduction in GWP as compared to a reference baseline building of similar size, function, complexity, -{type of construction, material specification, }- and location that meets the requirements of all parts of the *California Building Standards Code* currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO-14044, and ISO 21930 or EN 15804, and the software shall conform to ISO 21931, [ASTM E2921-22] and/or EN 15978.

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