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2023-2024 ASHRAE President

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Dr. Kersey Manliclic
Data Gathering and Analysis Division (4410G)
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460-001

Re: Comments on Draft Approach for Implementation of the EPA Label Program for Low Embodied Carbon Construction Materials, Docket ID number EPA–HQ–OPPT–2024–0038

Dear Dr. Manliclic:

Thank you for the opportunity to provide input on the *Draft Approach for Implementation of the EPA Label Program for Low Embodied Carbon Construction Materials.* ASHRAE, founded in 1894, is a technical society advancing human well-being through sustainable technology for the built environment. The Society and its more than 54,000 individual members – comprising engineers, academics and other professionals in the buildings industry – focus on building decarbonization, energy efficiency, indoor air quality, refrigeration and sustainability within the industry. ASHRAE responses to the RFI questions are provided below.

1. **Top-down regulations and IRA funding assistance can be important:** As manufacturers have thin margins, unless there is value add, it is not easy to financially support a holistic reporting program. If it is a voluntary program, the "self selected" products joining the program may be biased towards higher performances. Top-down regulations with IRA money to assist manufacturers can be important to have true industry averages.
2. **Labeling as simple as "A", "B", "C"...:** Consider an approach similar to EU Eco Design Directive, where a product is ranked in relative to the average of its category.

The best 20% of products may have an "A" rating, next 20% a "B" rating, middle 20% a "C", etc. A ratchet mechanism, if preferred, could be employed every 3-5 years where the lowest 20% is dropped off and the scale and the divisions readjusted.

3. **A benchmarking program for industry averages may be required with the labeling program:** Similar to "Energy Star", relative ranking may necessitate that there are average benchmarking values for the industry. Benchmarking requires standardized PCR and EPD calculation rules and methods. Currently ASHRAE is working with PNNL, AHRI etc. that can lay the groundwork for this effort for MEP equipment.

4. **Encourage biobased material:** Encourage use of biobased materials, but the material shall be from certified stewardship forestry programs, or, regenerative farming programs, or as equal, to regenerate the land and avoid eutrophication.

5. **Encourage circular economy:** Encourage "circular economy" in the building industry. This will need to include Module "D" in products so a building can sum up the total impacts of "Circular Economy" components. EN 15804 is pivoting to mandate reporting of Module D. Latest RICS "full assessment" of LCA will include module D. Note Module "D" is often the "negative" number that will lead towards embodied carbon zero.

6. **Potential phasing for a Whole Life Carbon labeling rather than embodied carbon labeling:** While embodied carbon program is helpful on products that have no operational impacts, siloing embodied and operational carbon ("Energy Star") will not reflect the true life cycle impacts of selected products, e.g. chiller, that have both an embodied carbon and operational carbon components. Consider a holistic framework with phases as the market becomes more mature to eventually lead to a "Whole Life Carbon" labeling.

    a. Current: Energy Star - aligns existing "Energy Star" program with B6 in EN 15978

    b. Future Phase 1: Upfront Carbon - Include products that are mostly "A1-A3"

    c. Future Phase 2: Embodied Carbon - include products that have "A1-A3", "B1-B5", and "C1-C4".

    d. Future Phase 3: Full assessment "Whole Life Carbon" labeling - combining Phase 3 (above) + Energy Star + circular economy (Module D).

7. **Leapfrogging for a holistic "Environmental" Labeling program:** GWP is only one dimension in EPD, there are also ozone depletion potential, acidification potential, eutrophication potential, smog formation potential, biotic depletion potential, and abiotic resources depletion potential impacts. If the focus is on carbon only, it will neglect the other aspects - e.g. there has been increased use of wood in the building industry at the

expense of increased eutrophication. There are methods to allow for these dimensions to be collapsed as one rating. Rather than "carbon", it will become a more holistic "environmental" rating.

8. **Similar to Energy Star, maybe this should consider positioning a "Whole Life Carbon" or "Environmental" labeling program to include buildings?** Parallel to "Energy Star", should this include buildings in the long run? At building level, it can be helpful to include "Circular Economy" Module "D", and also "B8" as a separate item, at least for "commuting", and also process-based non-carbon GHGs.

Thank you for your consideration of ASHRAE's input. If you would like any clarification on the submitted responses or have other questions, please contact GovAffairs@ASHRAE.org.

Sincerely,

Ginger Scoggins
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