



JOHN BEATH ENVIRONMENTAL, LLC
Striving to make something better every day

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October 8, 2024

Mr. Richard Willis
Vice President, Engineering, Research, & Technology
rwillis@asphaltpavement.org
(240) 825-4442

National Asphalt Pavement Association
6406 Ivy Lane, Suite 350
Greenbelt, MD 20770-1441

Dear Mr. Willis,

The National Asphalt Pavement Association (NAPA) commissioned John Beath Environmental, LLC (JBE) to conduct an external independent verification of updates to its online Emerald Eco-Label EPD tool, version 2.1.0, for generating environmental product declarations (EPDs) of asphalt mixtures. The tool was developed and updated by WAP Sustainability and is intended to support NAPA's Emerald Eco-Label EPD program. The reviewed updates include the biogenic carbon accounting approach for material ingredients, as outlined in the PCR for Asphalt Mixtures, by incorporating upstream datasets from EPDs that include biogenic carbon data.

The software functionality and the evaluation of its numerical outputs were assessed using the asphalt binder EPD provided. This included verifying whether the correct results were generated based on the EPD data and ensuring these results aligned with the generated EPD. The scope of the independent review was limited to the biogenic carbon accounting update.

The tool updates were reviewed for conformance to the following standards:

- ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures
- ISO 21930:2017, Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services
- Product Category Rules (PCR) for Asphalt Mixtures, version 2, April 2022

The verification took place after tool updates were developed. Access to a development server was granted to the verifier. The example EPD, generated EPD content, and calculated results were evaluated. Only tool front-end inputs and results were assessed for conformance; the review excluded an evaluation of back-end calculations and other operations.

NAPA's Emerald Eco-Label EPD tool, version 2.1.0, was found to be in conformance with the applicable standards. The remaining elements highlighted in NAPA's "Statement of Limitations in Emerald Eco-Label Software", effective April 1, 2022, are still considered to be not in conformance with the applicable standards.



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This verification acknowledges and accepts that NAPA has not yet implemented all features in the EPD tool due to time constraints—as stated in NAPA’s “Statement of Limitations in Emerald Eco-Label Software”, effective April 1, 2022. As the verifier, I look forward to NAPA closing these gaps to further bring the software into alignment with the PCR and help work towards a more sustainable paving industry.

Sincerely,

Sevda Alanya Rosenbaum
Senior Sustainability Consultant
John Beath Environmental