



COLORADO

Department of Transportation

Office of the Chief Engineer

Materials and Geotechnical Services
4670 Holly Street
Denver, CO 80216

October 17, 2022

Ms. Andrea Burr
NSF International
PO Box 130140
Ann Arbor, MI 48113-0140

RE: Comments/Requests/Suggestions related to:
Product Category Rule for Environmental Product Declarations
PCR for Precast Concrete - UNCPC: 37550

Dear Ms. Burr:

As you may be aware, the Colorado Department of Transportation (CDOT) has recently begun to collect Environmental Product Declarations (EPDs) on projects as of July 2022 in compliance with Colorado House Bill 21-1303. Our initial EPD collection efforts are geared toward regional benchmarking the Global Warming Potential associated with materials supplied to CDOT projects in conformance with our CDOT specifications, prior to establishing GWP limits by January 2025. Review of published Colorado EPDs led to an in depth review of the PCR and PCR Annex by our CDOT EPD Implementation Team. Reviews were conducted on Asphalt Mixtures, Ready Mixed Concrete, Precast Concrete and Steel PCRs and our comments/questions will be posted to our [CDOT EPD webpage](#). CDOT has also shared and sought input on these comments with other States/Agencies (MNDOT, WSDOT, ODOT, CALTrans, and PANYNJ) that are interested in or are currently pursuing EPD collection efforts as well. The following comments, requests, and suggestions are a result of that review and have been provided primarily as we look ahead to submittal verification/quality assurance and anticipated data granularity needs for our regional benchmarking efforts here in Colorado. Comments specific to your PCR are:

1. To set up CDOT regional benchmarks it is good to know the mix design. The current EPD format does not report the mix design. CDOT is requesting that the EPD format should include the mix design, with materials components to be detailed to 10s of pounds and fluid ounces for admixtures. This is most relevant for the binder content and binder origin (supplier and location). CDOT will be requesting this information per July 1st, 2023.
2. The EPD should include what cement data is used (how much of each of the following: industry average, company average, or site/plant specific data). CDOT will be requesting this information per July 1st, 2023.
3. Consider requiring the use of a unique EPD number for each unique EPD generated
4. Consider requiring the registration of EPDs on the NSF website.
5. The declared units are one metric ton of precast product. Would it be possible for the EPD to include a conversion factor to customary units to make the data more useful (, like linear foot + diameter for a pipe).



6. A national or industry group averages for product subcategories like “underground or architectural” are not useful. CDOT is planning to request supplier and facility-specific information per July 1st, 2023.
7. When declaring an (national) average, the actual average is not very helpful for regional benchmarks. For other purposes, a value that covers a minimum or maximum, or declares a more conservative value, like an 80% percentile, or define when differences are too large that they should be declared separately, would be more useful and potentially provide an incentive to produce more specific EPDs.
8. We recommend to reviewing the PCR and reporting the review in a public document against the ACLCA guidelines <https://aclca.org/pcr/> to assist in transparency and harmonization.
9. The EPD should include a description of all participating producers and locations and the products that are covered.
10. The PCR does not prescribe background data, but prescribes it to be reported on the EPD, but the EPDs we reviewed do not include this. Would it not be better to have a list of required background data? We recommend developing a data quality protocol for the use of non-primary data and review the current data against it. Regionalization of data would be desirable, going beyond national averages. This would inform data development and outreach from NSF and involved associations to industry representatives to improve the data (recommended). CDOT is willing to support this outreach as we are considering requiring facility-specific data for (the main) mix components by July 1st, 2023. it would be useful to collaborate with the ready-mix concrete and asphalt mix program operators for alignment.
11. We recommend reviewing the NSF PCR for ready mix and see where the precast PCR can refer to or add to for all mix related topics, to make sure all rules are not duplicative or inconsistent, or to simply reference and only issue needed additional rules.
12. We recommend reviewing the ASTM designed steel construction products PCR and see where the precast PCR can refer to or add to all reinforcing related topics, to make sure all rules are not duplicative or inconsistent, or to simply reference and only issue needed additional rules.
13. We recommend reaching out to the ACLCA and/or the EPA for the TRACI methodology to work on guidance for ADP factors in Table B1 and not to declare these in a PCR. Characterization factors are a product of specific methodologies and should be documented and reviewed before publication and use in applications such as EPDs.
14. We recommend that the PCR committee defines and provides for a recurring EPD-tool review and reporting to assure equal outcomes, and a review process for new tools when they become available.
15. We recommend that the Program Operator organizes periodic (at least annual) meetings with third party reviewers to discuss interpretation issues, and potential PCR improvements as part of a continuous improvement process that is not bound by the 5-year PCR update process. This process has been very valuable when implemented in other PCR committees.

CDOT greatly appreciates your support as we begin our EPD implementation process. We are hopeful that the comments, questions and suggestions outlined above can be considered and implemented in the immediate future.



If you have any questions related to these comments, please do not hesitate to reach out to us for clarification. I can be reached by phone at 303-398-6501, or by email at craig.wieden@state.co.us. I intend to follow up with you in a week or two to discuss these comments with you and to determine actions and timeframes that may be undertaken to address them.

Sincerely,

Craig Wieden
State Materials Engineer
Colorado Department of Transportation

