

# **General Program Instructions** for Emerald Eco-Label Environmental Product Declarations (EPD) Program

**National Asphalt Pavement Association**

**Version 2.1**  
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**Emerald**  
ECO  LABEL



## **1. General Program Instructions**

- a. These program instructions are used in the operation of Emerald Eco-Label, a Type III environmental product declaration (EPD) program developed by the National Asphalt Pavement Association (NAPA).
- b. These program instructions meet the requirements of ISO 14025:2006 “Environmental Labels and Declarations — Type III Environmental Declarations — Principles and Procedures.”

## **2. Program Scope**

- a. The scope of the Emerald Eco-Label Program (referred to herein as “Program”) is the development and administration of product category rules (PCR) and EPDs for asphalt pavement mixtures manufactured or produced in North America.
- b. As referenced for the Program, asphalt mixtures are defined as plant-produced asphalt pavement mixtures.
- c. Asphalt pavement ingredients are constituent materials required to manufacture asphalt pavement mixtures. Examples include, but are not limited to, aggregates, asphalt binder, reclaimed asphalt pavement, recycled asphalt shingles, recycled tire rubber, steel slag, and additives. Additives include, but are not limited to, warm-mix agents, recycling agents, polymers, and anti-strip compounds.

## **3. Program Goals and Objectives**

- a. The objective of the Program is to provide comprehensive, credible, and comparable data regarding the potential environmental impacts of asphalt pavements to owners, engineers, consultants, contractors, and other stakeholders. This is achieved through the following:
  - i. Make the NAPA General Program Instructions publicly available at [www.asphaltpavement.org/EPD](http://www.asphaltpavement.org/EPD)
  - ii. Establish and maintain PCRs for EPDs developed for asphalt mixtures.
  - iii. Publish all verified PCR documents.
  - iv. Provide a tool for asphalt mixture producers to create verified EPDs that comply with ISO 14025 and other standards used in North America.
  - v. Publish EPDs that are verified through the Program.
  - vi. Maintain a publicly available list of all verified EPDs, accessible at [www.asphaltpavement.org/EPD](http://www.asphaltpavement.org/EPD).
  - vii. Provide asphalt mixture producers the ability to analyze and understand the potential environmental impacts throughout the cradle-to-gate life cycle of an asphalt pavement, enabling producers to reduce those impacts when possible.

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- viii. Maintain an active Sustainability Committee, which is tasked with the following:
  1. Prepare, maintain, and implement these General Program Instructions along with Program supporting documents.
  2. Identify the need for PCRs pertaining to asphalt pavement mixtures.
  3. Ensure PCR accuracy and compliance with Program rules and applicable standards.
  4. Establish a procedure for selecting competent verifiers for PCRs, life cycle assessments (LCAs), and EPDs that are developed or commissioned in support of the Program.

### **4. Identification of Program Operator**

- a. The Program Operator is NAPA, which is headquartered in Greenbelt, Maryland.
- b. NAPA is a 501(c)(6), non-profit corporation founded in 1955. It is the trade association that exclusively represents the interests of asphalt pavement material producers and paving contractors on the national level with the U.S. Congress, government agencies, and other national trade and business organizations. NAPA supports an active research program designed to answer questions about environmental issues and to improve the quality of asphalt pavements and paving techniques used in the construction of roads, streets, highways, parking lots, airports, and environmental and recreational facilities. NAPA provides technical, educational, and marketing materials and information to its members, and supplies technical information to users and specifiers of paving materials. NAPA counts more than 1,100 companies among its members.

### **5. Intended Audience**

The intended audience of the Program is business-to-business, which includes asphalt pavement owners, engineers, consultants, contractors, and other stakeholder groups.

### **6. Involvement of Interested Parties**

- a. The PCR development process shall be open to all parties with an interest in quantifying and/or lessening the potential environmental impacts of asphalt pavements, including but not limited to representatives of asphalt mixture producers, paving contractors, material and equipment suppliers, customers (e.g., agencies and private entities that utilize asphalt pavement), educational institutions, and research facilities.
- b. Interested parties may participate by applying to serve on the PCR Committee or by submitting comments during the open consultation process.
- c. Interested parties may participate through email or telephone.

- d. NAPA will track a list of all parties that demonstrated an interest in participating and publish it in the Appendix of the PCR with a general description of the manner and extent of their participation.

## **7. Definition of Product Categories**

To ensure clarity and avoid PCR duplication, the product category shall be defined by one or more of the following classification systems:

- a. NAICS — North American Industry Classification System 2017, i.e. 324121: Asphalt Paving Mixture and Block Manufacturing;
- b. UNCPD — United Nations Central Product Classification Ver. 2.1, i.e. 37940: Bituminous mixtures based on natural and artificial stone materials and bitumen, natural asphalt or related substances as a binder; or
- c. UNSPSC — United Nations Standard Products and Services Code, i.e. 30111509: Asphalt-based concrete.

## **8. Management of Data and Documentation**

Together, EPDs, the underlying LCAs, and the overarching PCRs developed under the Program shall meet the data and documentation requirements established in ISO 14044, Clause 5.

## **9. Data Confidentiality Management**

- a. Confidential information or data will not be used for any purposes other than EPD or PCR development or revision, or benchmarking industry practices.
  - i. To the extent practical, NAPA will treat as confidential all data identified as confidential by the provider of the data.
  - ii. NAPA will take appropriate steps to prevent disclosure of confidential information to unauthorized third parties.
  - iii. To the extent appropriate and if requested in writing by the provider of any information designated as confidential, NAPA will ensure that individuals participating in the Program (e.g., NAPA employees, subcontractors, verifiers, stakeholder experts) enter into a confidentiality agreement before accessing or using such information.
  - iv. NAPA will store all electronic and hard copies of supporting information in an appropriate format and will take precautions to prevent the loss of such information.
  - v. Upon request, NAPA will return any information designated as confidential to the provider.

- b. EPDs created through the Program are owned by the organization that develops the EPD. NAPA will not use EPD data or information associated with an EPD without first getting written consent from the organization that developed the EPD.

## **10. Development and Maintenance of PCR**

- a. Administration of PCR development and maintenance.
  - i. The Sustainability Committee will determine the need for development of a new PCR or revision of an existing PCR. At a minimum, this will be done every five years to comply with the applicable standards.
  - ii. The Sustainability Committee will establish a PCR Committee, which will be responsible for developing or revising the PCR.
    - 1. The PCR Committee shall consist of at least 10 individuals with at least one member from a downstream customer, one material supplier, one LCA expert, and one academic. At least 50% of the PCR Committee members shall be NAPA members in good standing.
    - 2. Members of the PCR Committee shall disclose potential conflicts of interest to the Sustainability Committee in writing. Such disclosure must be included in the PCR Committee application.
  - iii. Before developing a new PCR, the PCR Committee will review any existing PCRs for the product category that are valid in North America for possible adoption. If the PCR Committee determines that the content of an existing PCR is not appropriate, it may then choose to either work with the Program Operator to modify the PCR or develop a new PCR for relevant asphalt pavement mixtures.
  - iv. PCR content requirements: To ensure the comparability of EPDs within a product category, any PCR under the Program shall include rules that enable EPDs to meet the requirements for comparability established in ISO 14025, Clause 6.7.2.
- b. LCA content requirements:
  - i. The PCR shall be based on one or more underlying LCAs that conform to ISO 14040 and ISO 14044.
  - ii. At least one such LCA shall be critically reviewed by an independent, third-party expert or panel of interested parties in conformance with ISO 14044, Clause 6.
- c. Selection procedure for predetermined parameters:
  - i. The PCR Committee will guide the selection of predetermined parameters.
  - ii. The selection procedure will include, but not be limited to:
    - 1. Identify methods to define all terms and definitions relevant to the product category.

2. Identify methods to define goal, scope, system boundaries, and functional units for EPDs, including specific inclusion and exclusion criteria.
  3. Identify the validity period for applicable data.
  4. Identify when to use existing inventory data instead of primary data for inventory analysis.
  5. Identify how to select life cycle inventory data when multiple sources are available.
  6. Identify how to address co-product allocation and waste handling processes.
  7. Identify any applicable data reporting and quality assurance procedures.
  8. Identify LCA impact assessment methods to be used and reporting categories.
- iii. The PCR Committee will make the decisions for predetermined parameters through a consensus-based process as described in ISO/IEC Directives, Part 1, Consolidated ISO Supplement, 2020.
  - iv. For each predetermined parameter in the PCR, the PCR Committee will define defaults. Examples of such defaults are:
    1. Units for LCA modeling and reporting.
    2. U.S. life cycle inventory (LCI) Database models.
    3. Default parameter values to be used in lieu of collecting primary data.
  - v. The PCR Committee will document the justification for all predetermined parameters and include such documentation in the PCR.
- d. Validity Period
- i. PCRs developed under the Program will be valid for no longer than five years.
  - ii. Any interested party may submit information regarding changes that may affect a PCR at any time. The Sustainability Committee, in its discretion, may revise the PCR prior to its expiration.
  - iii. The Sustainability Committee, in its discretion, may extend the period of validity for up to one year if development of the revised PCR is underway but not complete, or to provide additional time for EPD software tools to come into compliance with the revised PCR. The period of validity may also be extended for EPDs to match, but not exceed, the extended period of validity for the PCR.

## **11. Procedure for Independent Verification**

- a. PCR review.
  - i. PCRs developed under the Program must be reviewed by a third-party panel.
  - ii. The review panel shall be comprised of at least three people, be led by an LCA expert (certified professional or equivalent) and include at least one industry expert.
  - iii. Individuals on the review panel must not have participated in the development or revision of the PCR.
  - iv. The review panel will ensure that the:
    - 1. PCR has been developed in accordance with the ISO 14040 Series of standards, and specifically in accordance with ISO 14025, Clause 6.7.1;
    - 2. PCR was developed in accordance with these General Program Instructions; and
    - 3. LCA-based data, together with any additional environmental information prescribed by the PCR, adequately and accurately describe the significant environmental aspects of the products.
- b. EPD Verification
  - i. EPDs developed under the Program shall be reviewed by an independent external verifier.
    - 1. The verifier shall not have participated in the development of the LCA or the EPD but may be a member of the PCR review panel.
    - 2. The verifier must have adequate knowledge of the asphalt paving industry and expertise in LCA methodology.
  - ii. The underlying data in the EPD shall be verified in accordance with the requirements in ISO 14025, Clause 8.1.3.
  - iii. The EPD verification shall ensure conformance with ISO 14025, Clause 8.1.4.
  - iv. For EPDs developed using a software tool, including NAPA's Emerald Eco-Label tool, the verification shall ensure that appropriate statistical methods are used to evaluate the plausibility of primary data, as specified in the PCR.
  - v. The independent verifier must develop a report documenting the results of the verification process, which should adhere to any applicable confidentiality requirements. The verification report will be made available upon request.
  - vi. The verification report shall confirm whether the information in the EPD accurately reflects the information in the documents and data upon which the EPD is based. The verification report shall also confirm whether this information is valid and scientifically sound.

## **12. Periodic Review of the General Program Instructions**

- a. The General Program Instructions will be reviewed by the Sustainability Committee at least once every five years.
- b. Any review will include, but not be limited to:
  - i. Check for updates in relevant/applicable national or international standards.
  - ii. Determine whether changes are needed to conform to applicable standards.
  - iii. Determine whether changes are needed because of changing Program goals and objectives.
  - iv. Determine whether any changes should be made available or described at [www.asphaltpavement.org/EPD](http://www.asphaltpavement.org/EPD).

## **13. Funding Source and Program Fees**

- a. The Program is funded by a combination of Program fees and NAPA's operating expenses. NAPA may also seek funding from outside organizations to support development or operation of the Program.
- b. Program fees will be developed on a case-by-case basis.
- c. To the extent applicable and practical, a fee schedule will be available at [www.asphaltpavement.org/EPD](http://www.asphaltpavement.org/EPD).

## **14. Guidance on Communicating EPD Information**

- a. EPDs that are developed and verified using the Emerald Eco-Label software tool will display the NAPA Verified EPD Logo.
- b. NAPA reserves any and all rights it may have to initiate legal action in the event of, or to prevent, any misuse or misrepresentation of the NAPA Verified EPD Logo or information published in NAPA Verified EPDs, or to protect confidential information. Any right or rights NAPA may have to initiate legal action shall not be construed as an obligation to initiate such action and the discretion to initiate any such action rests solely with NAPA.

## **15. References**

- a. **EN 15804** – EN 15804:2012+A1, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products. European Committee for Standardization, 2013.
- b. **ISO 14020** – ISO 14020:2000, Environmental labels and declarations – General Principles. International Organization for Standardization, 2000.
- c. **ISO 14025** – ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – principles and procedures. International Organization for Standardization, 2006.



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- d. **ISO 14040** – ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework. International Organization for Standardization, 2006.
- e. **ISO 14044** – ISO 14044:2006, Environmental management – Life cycle assessment – Requirements and guidelines. International Organization for Standardization, 2006.
- f. **ISO 21930** – ISO 21930:2017, Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services. International Organization for Standardization, 2017.
- g. **ISO/IEC Directives, Part 1, Consolidated ISO Supplement, 2020** – ISO/IEC Directives, Part 1, Consolidated ISO Supplement – Procedures specific to ISO. International Organization for Standardization, 11<sup>th</sup> edition, 2020.
- h. **NAICS** – North American Industry Classification System, United States, 2017.
- i. **UNCPC** – Central Product Classification, Version 2.1. United Nations, 2015.
- j. **UNSPSC** – United Nations Standard Products and Services Code.  
<https://www.unspsc.org/>.