



# Program Operator Instructions

## For Environmental Product Declarations

NATIONAL READY MIXED CONCRETE ASSOCIATION

Version 1.2

November 18, 2013

**NRMCA PROGRAM OPERATOR INSTRUCTIONS (v1.2) for  
ENVIRONMENTAL PRODUCT DECLARATIONS (EPD) PROGRAM**

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**1. Program Operator**

- 1.1. The National Ready Mixed Concrete Association (NRMCA) is the Environmental Product Declaration (EPD) Program Operator.
- 1.2. NRMCA, based in Silver Spring, MD, is a 501 (c) (6) non-profit organization that represents the producers of ready mixed concrete and the companies that provide materials, equipment and support to the industry. Founded in 1930, the Association provides its members with education, training, certification, promotion, research, engineering, safety, environmental, technological, lobbying and regulatory programs to enhance the success of the ready mixed concrete industry.

**2. Program Scope**

- 2.1. The scope of the NRMCA EPD Program is to facilitate the development, verification and publishing Type III environmental product declarations (“EPDs”) for concrete products and concrete ingredients for all geographical regions.
- 2.2. Concrete products include all ready mixed concrete products and precast concrete products for any application including but not limited to residential buildings, industrial, commercial and institutional buildings, pavements and infrastructure projects. Some examples of concrete products include cast-in-place concrete (reinforced and unreinforced), light-weight concrete, heavy-weight concrete, mass concrete, pervious concrete, roller compacted concrete, grout, concrete masonry and precast concrete.
- 2.3. Concrete ingredients include all products used as constituent materials to manufacture concrete products. Examples include cement, supplementary cementitious materials, aggregates, admixtures, fibers, and water.
- 2.4. Product categories shall be defined by one or more of the following classification systems:
  - 2.4.1. UNCPC (United Nations Central Product Classification)
  - 2.4.2. NAICS (North American Industry Classification System)
  - 2.4.3. UNSPSC (United Nations Standard Products and Services Code).

**3. Program Objectives**

- 3.1. The objective of the NRMCA EPD Program is to facilitate the development and verification of credible, comparable and consistent EPDs for both Business to Business (B-to-B) and Business to Consumer (B-to-C) applications.
- 3.2. The EPDs are intended to assist specifiers, purchasers and users of concrete products and concrete ingredients to make informed comparisons between products, however they will not represent environmental claims regarding the superiority or equivalence of one product versus a competing product that performs the same function.

**4. Program Administration and Program Committee**

- 4.1. NRMCA will administer the program to ensure the objectives and integrity of the program are maintained. Administrative functions include:
  - 4.1.1. Forming and maintaining an NRMCA EPD Program Committee to review, develop, maintain, and revise the NRMCA EPD Program Operator Instructions
  - 4.1.2. The NRMCA EPD Program Committee will consist of a minimum of three individuals representing a reasonable mix of perspectives and competencies

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- including knowledge of the concrete industry and life cycle assessment (LCA).
- 4.1.3. Functions of the NRMCA EPD Program Committee include:
- 4.1.3.1. Select existing suitable product category rule(s) (PCR) where they exist.
  - 4.1.3.2. Modify existing PCRs as required to create specific PCRs for the products under consideration for EPD development
  - 4.1.3.3. Develop new PCRs where none exist
  - 4.1.3.4. Maintain a transparent procedure for the review of existing PCRs and new PCRs for compliance with these program rules and relevant standards, including details of the review process. Ensure the selection of competent independent PCR Review Panel when modified or new PCRs are being considered for adoption
  - 4.1.3.5. Establish the procedure for EPD verification
  - 4.1.3.6. Ensure the selection of competent EPD verifiers
  - 4.1.3.7. Prepare and publish verified EPDs
  - 4.1.3.8. Maintain publicly available lists and records of PCR documents and EPDs verified within the program
  - 4.1.3.9. Revise, re-issue and implement the program operator instructions and documents when necessary
  - 4.1.3.10. Make these Program Operator Instructions publically available at [www.nrmca.org](http://www.nrmca.org).

**5. Compliance with Relevant Standards**

- 5.1. PCRs adopted and EPDs developed and verified under this program will comply with the following international standards:
- 5.1.1. ISO 14020 Environmental labels and declarations—General principles
  - 5.1.2. ISO 14025 Environmental labels and declarations—Type III environmental declarations – principles and procedures
  - 5.1.3. ISO 14040 Environmental management—Life cycle assessment—Principles and framework
  - 5.1.4. ISO 14044 Environmental management—Life cycle assessment—Requirements and guidelines
  - 5.1.5. ISO 21930 Sustainability in building construction — Environmental declaration of building products
  - 1.1.1. Additional standards where appropriate or as they become available.

**6. Intended Audiences**

- 6.1. The intended audience for the EPDs developed in this program is business-to-business (B-to-B) or business-to-consumer (B-to-C) depending on the specific PCR.

**7. Involvement of Interested Parties**

- 7.1. Interested parties will be identified for review and consultation on PCRs from the stakeholder groups listed in ISO 14025 for B-to-B or B-to-C applications, as applicable
- 7.2. Only those with adequate knowledge of the products and their life cycle environmental stresses will be selected, and NRMCA will publish the names of the organizations.

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**8. PCR Development and Maintenance**

- 8.1. When no appropriate existing PCR exists, NRMCA will prepare new draft PCRs for relevant concrete products and concrete ingredients and then finalize and adopt them based on the following PCR Review Process. The PCRs will contain and be consistent with the following at a minimum:
  - 8.1.1. The name and product category designation of the PCR
  - 8.1.2. The intended application of the EPD developed using the PCR
  - 8.1.3. Existing PCRs (if any) and the reason for developing a superseding PCR
  - 8.1.4. Product category definition and description
  - 8.1.5. Be consistent with the rules defined under the ISO 14040 series for goal and scoping of LCA studies
  - 8.1.6. Define the functional unit(s) and/or declared unit(s)
  - 8.1.7. Define allocation and calculation rules adequate for the product categories
  - 8.1.8. Select and report appropriate environmental impacts, other Life Cycle Inventory Analysis indicators and additional environmental information in accordance with the requirements stated in ISO 14025 and other appropriate standards
  - 8.1.9. Ensure the LCA-based data, together with the additional environmental information prescribed by the PCR, gives an accurate description of the significant environmental aspects of the product
  - 8.1.10. Ensure the LCA-based data described in the PCR is consistently applied for the product category
  - 8.1.11. Other environmental information is based on scientifically-sound methodology and is verifiable
  - 8.1.12. Goal and scope of the LCA-based information for the product category
  - 8.1.13. Rules on producing the additional environmental information
  - 8.1.14. Details on the life-cycle stages (information modules) to be included in the LCA
  - 8.1.15. Procedure for inventory analysis
  - 8.1.16. The environmental impacts to be reported in the EPD
  - 8.1.17. The way in which the environmental impacts are collated and reported
  - 8.1.18. Period of validity of the PCR.

**9. PCR Review Process**

- 9.1. For existing PCRs registered in another EPD Program, the NRMCA EPD Program Committee will review the PCR for consistency with these program rules and may adopt the PCR without modification.
- 9.2. For each modified or new PCR being considered for adoption, a PCR Review Panel with relevant experience and technical knowledge will be assembled.
- 9.3. NRMCA will ensure the PCR Review Panel consists of a Chair and two or more invited members for the PCR review process.
- 9.4. The Chair will provide adequate time for the review and make reasonable efforts to reach consensus throughout.
- 9.5. The Chair will also ensure that the PCR Review Panel members receive responses to their comments within a reasonable time.
- 9.6. NRMCA will ensure that there is a reasonable mix of perspectives and competencies on the review panel ensuring that it does not consist solely of members from the concrete

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products industry. The combined competencies of the PCR Review Panel include the following:

- 9.6.1. Knowledge of the concrete industry, concrete products, concrete ingredients, and related environmental aspects
- 9.6.2. Expertise in LCA methodology and knowledge of EPD principles and procedures defined in ISO 14025 and other relevant standards and support credible, comparable and consistent EPDs
- 9.6.3. Knowledge of the regulatory framework within the scope of the PCR
- 9.6.4. Knowledge of the other relevant EPD Programs that will potentially adopt and apply the PCR for their EPDs.

**10. LCA for EPD Development**

- 10.1. NRMCA will ensure that LCAs used for EPD development are performed in accordance with the finalized PCRs for the product categories under consideration.
- 10.2. The manufacturer or the LCA practitioner appointed by the manufacturer supplies the NRMCA with a project report describing the LCA work underlying the EPD. The project report is not made available to the public.
- 10.3. Results, data, methods, assumptions and limitations and conclusions of the LCA shall be provided in the project report.
- 10.4. Results shall be transparent and presented in sufficient detail to allow an independent EPD verifier to verify the results of the EPD, including data transparency as follows:
  - 10.4.1.1. Primary, secondary or tertiary data
  - 10.4.1.2. Measured or calculated data
  - 10.4.1.3. Dates over which the data was collected.
- 10.5. The project report shall address and include the following:
  - 10.5.1. The LCA practitioner or company who produced the report
  - 10.5.2. Date of the report
  - 10.5.3. Reason for carrying out the study (i.e. in support of a specific EPD)
  - 10.5.4. The target audience (B-to-B or B-to-C)
  - 10.5.5. Statement that the study was conducted in accordance with ISO 14040, ISO 14044 and other relevant standards
  - 10.5.6. The PCR on which the study is based
  - 10.5.7. Statement that the study was conducted in accordance with the PCR
  - 10.5.8. Description of the life cycle stages
  - 10.5.9. Description of the functional or declared unit
  - 10.5.10. Description of the system boundaries
  - 10.5.11. Omission of life cycle stages
  - 10.5.12. Quantification of energy and material inputs and outputs
  - 10.5.13. Data sources used
  - 10.5.14. Data quality assessment
  - 10.5.15. Statement how missing data is treated
  - 10.5.16. Allocation principles and procedures used
  - 10.5.17. Life cycle inventory analysis (LCIA) procedures, calculations and results
  - 10.5.18. Discussion of data variability
  - 10.5.19. Results of environmental impacts as required in the PCR
  - 10.5.20. Documentation of additional environmental information.

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**11. EPD Verification Procedure**

- 11.1. NRMCA will ensure that a qualified verifier reviews and verifies each EPD certified under this EPD Program.
- 11.2. The verifier shall be an individual with knowledge of the concrete products industry and related environmental aspects, with process and product knowledge of the product category, and have expertise in LCA methodology.
- 11.3. The verifier shall be competent in relevant standards in the fields of environmental product declarations, the regulatory framework within which requirements for Type III environmental product declarations have been prepared, and the Type III environmental product declarations program.
- 11.4. The independent verification of the EPD and underlying LCA report shall as a minimum confirm the following:
  - 11.4.1. Conformance with the PCR
  - 11.4.2. Conformance with the relevant standards (see section 5)
  - 11.4.3. Conformance with these NRMCA Program Operator Instructions;
  - 11.4.4. That data evaluation includes coverage, precision, completeness, representativeness, consistency, reproducibility, sources and uncertainty
  - 11.4.5. The plausibility, quality and accuracy of the LCA-based data
  - 11.4.6. The quality and accuracy of additional environmental information
  - 11.4.7. The quality and accuracy of the supporting information.
- 11.5. The independent EPD verifier will generate a verification report documenting the results of the verification process, while adhering to his/her obligations for data confidentiality and make the report available to NRMCA and the company seeking EPD verification.
- 11.6. For an EPD based on a previously peer-reviewed LCA or on an LCA/EPD software tool, the verifier will perform a background document analysis of the LCA documents to check if the peer-review has been carried out in accordance with the ISO guidelines and ensure that the LCA is in conformance with the PCR.

**12. Maintaining Publicly Available Lists and Records of PCRs and EPDs**

- 12.1. NRMCA will maintain a publicly available list of all PCRs adopted, developed or registered within the program and all EPDs verified within the program and make that list available to the public via [www.nrmca.org](http://www.nrmca.org).

**13. Monitoring and Coordinating with Related EPD Programs**

- 13.1. NRMCA will strive to keep up-to-date on the general rules of related EPD Programs and PCR development.
- 13.2. The goal is to make EPDs verified by NRMCA as consistent as possible with those in other EPD Programs in order to support the use of that information with full life cycle building LCAs, building and product rating systems and green procurement programs.

**14. Data Confidentiality**

- 14.1. Any confidential data or information supplied by or on behalf of parties seeking an EPD under this program will not be used for any purpose other than in connection with the generation of EPDs and related activities as follows:

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- 14.1.1. All data will be kept strictly confidential, except for data and information that is required to be published in an EPD in accordance with the applicable PCR
- 14.1.2. NRMCA will prevent access by unauthorized persons to confidential information
- 14.1.3. NRMCA employees, subcontractors, verifiers, panelists and stakeholder experts will have entered into confidentiality agreements prior to having access to any such confidential information
- 14.1.4. All electronic and hardcopy data will be archived for any future communication with the client in a secure format and location when the EPD has been formally issued
- 14.1.5. NRMCA will return, upon request, all hardcopy or electronic documents, records, notebooks, computer media or other stored information containing confidential information in its possession or control
- 14.1.6. NRMCA, may from time-to-time use the published EPD results to develop industry baselines and averages for the purposes of benchmarking or developing and publishing industry average EPDs.

### **15. *Funding Sources and Program Fees***

- 15.1. The program will be funded through NRMCA EPD Program fees.
- 15.2. Program fees will be negotiated with each manufacturer or organization seeking EPD verification.
- 15.3. Where appropriate, standard program fees will be published at [www.nrmca.org](http://www.nrmca.org).

### **16. *Use of the NRMCA Certified EPD and NRMCA Certified EPD Logo***

- 16.1. EPDs are considered to be the property of the manufacturers or organizations seeking the EPDs.
- 16.2. The information in the EPDs developed and published under this program shall not be quoted in whole or in part without written consent from EPD owner.
- 16.3. The NRMCA Certified EPD can only be used for the intended purpose listed in the EPD and the NRMCA Certified EPD can only be used by EPD owners in conjunction with the NRMCA certified EPD.
- 16.4. NRMCA reserves the right to legal action against manufactures or organizations that misuse or misrepresent the NRMCA Certified EPD Logo or the information in the NRMCA Certified EPDs.

### **17. *Periodic Review of Program Instructions***

- 17.1. NRMCA will review the program rules at least every five years to ensure the document is up-to-date and consistent with relevant standards and practices.