

The background of the slide is a photograph of a window with decorative glass. The glass features several distinct patterns: a cluster of white circles in the upper left, a grid of white squares in the upper middle, a grid of pink squares in the upper right, a grid of white squares in the lower left, a grid of white squares in the lower middle, and a grid of white squares in the lower right. The window frame is visible as a light-colored border.

Environmental Standards Procurement Task Force

Meeting #11 - Program Implementation and Next Steps

April 22, 2026

Agenda

Meeting #11 - Program Implementation and Next Steps

10:00a to 10:10a: Introduction

- Timeline & Schedule
- Announcements & Updates

10:10a to 10:50: Program Requirements & Implementation

- GWP Limits
- Submittal Process - EPD Submittal Form DRAFT
- Waiver/Exemption Process

10:50a to 11:10a: Data Management Approach

11:10a to 11:30a: Next Steps

- Guidance Documents
- Training/Education

11:30a to 11:45a: *Member Discussion and Questions*

11:45a to 12:00p: *Public Comments and Questions*

Minnesota Task Force Timeline

2023 October 1 - Task Force established

2024

- February 22 - EC Context: Concrete and Asphalt
- March 14 - EC Context: Steel, Rebar and Other Materials
- April 25 and May 23 - Bidding and Procurement
- July 1 - Pilot Program begins
- Summer/Fall - Material-specific and Pilot Program Working Groups (WG)
- Oct 23 - ESPTF Mtg#6: Concrete and Asphalt WG
- Nov 20 - ESPTF Mtg#7: Steel and Rebar WG
- Dec 18 - ESPTF Mtg#8: Pilot Program and Other Materials

2025

- March 19, 2025 - Mtg#9: Task Force Recommendations
- May 8, 2025 - Draft Report sent to Task Force for comment
- Spring - Draft Report, Select Grant Awardees & Distribute Funds
- Summer/Fall - Draft Report Staff Reviews and Revisions
- Oct 8 - Mtg#10: TF Recommendations & Legislative Report
- December 1 - Report to the Legislature

2026

- **January 15** - Global Warming Potential (GWP) established for **concrete and rebar used in buildings.**
- **April 22 - ESPTF Mtg#11 (Virtual)**
- **June 17 - ESPTF Mtg#12 (In Person)** MnDOT Office of Materials and Road Research, Maplewood, MN 55109
- Summer/Fall Training (TBD)
- **July 15** - Implementation date of GWP limits/EPD disclosure requirements (projects letting on or after this date)
- **September 16 - ESPTF Mtg#13** (TBD)
- **October 14 - ESPTF Mtg#14** (TBD)
- December 1 - Report to the Legislature

2027

- December 1 - Report to the Legislature

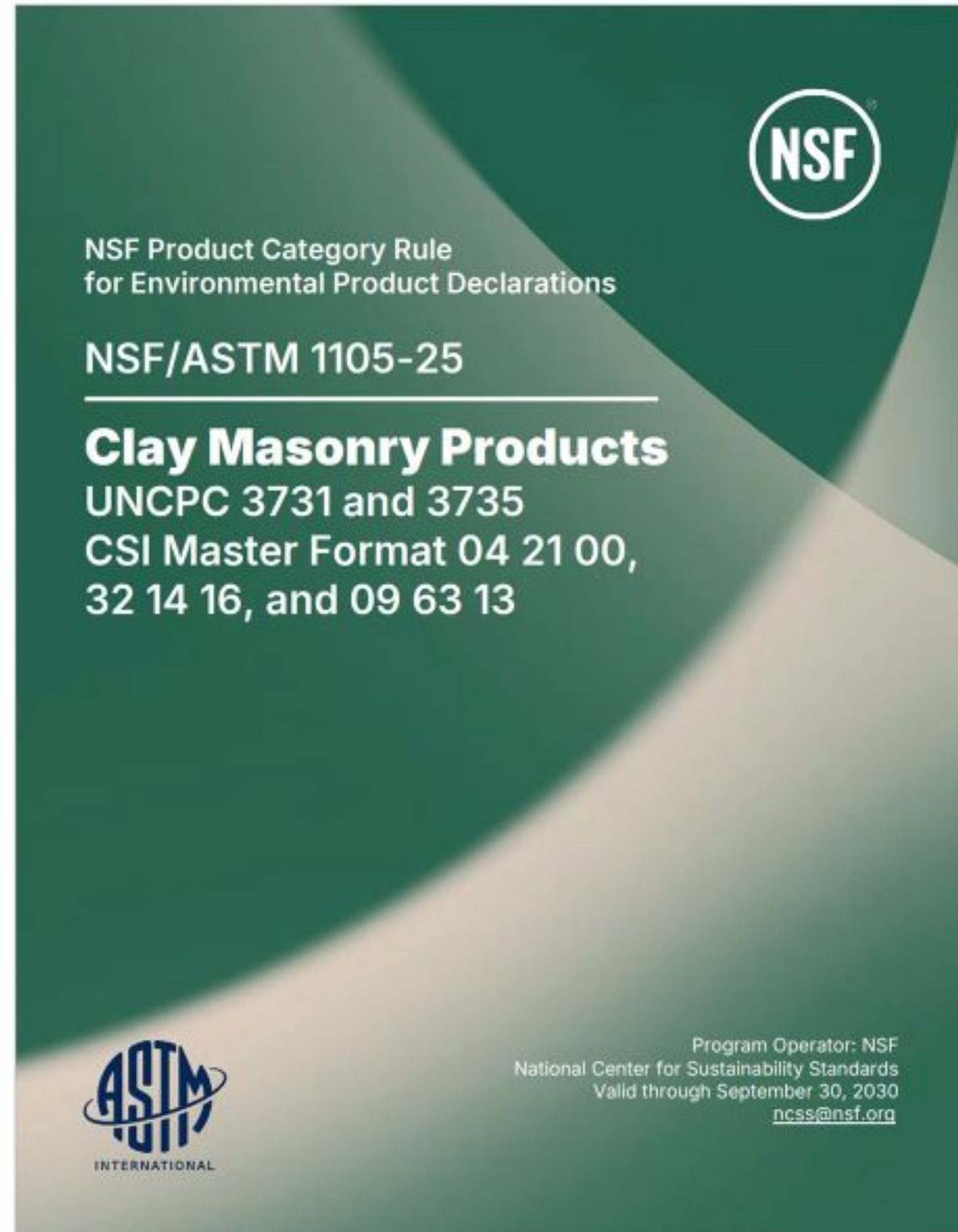
2028

- January 15 (no later than) - Establish a maximum GWP for structural steel and, after conferring with the commissioner of transportation, for asphalt paving mixtures and concrete pavement
- December 1 - Report to the Legislature

2029

- January 1 - Task Force ends

Clay Masonry PCR & EPD updates



Updated Clay Unit Masonry Industry Average EPD

<https://info.nsf.org/Certified/Sustain/ProdCert/EPD11101.pdf>

Updated Clay Unit Masonry PCR

https://d2evkimvhatqav.cloudfront.net/documents/PCR-Product-Category-Rules/NSF-ASTM-1105-25-Clay-Masonry-Products_29252-05.pdf?v=1762528017

Asphalt PCR update

https://www.asphaltpavement.org/uploads/documents/EPD_Program/Doc_A_NAPA_PCR_Revision_v2.1.pdf



Product Category Rules (PCR) For Asphalt Mixtures

Version 2.1

Effective Date: April 2026

Validity Period: Through September 2027

6406 Ivy Lane, Suite 350 | Greenbelt, MD 20770 | 301-731-4748
AsphaltPavement.org/EPD

Foreword

Midstream Update [final publication date: XX/XX/2025]: A midstream update was issued in response to the Environmental Protection Agency's review of the asphalt mixture Product Category Rule against the EPA – PCR Criteria as published within the Construction Materials Opportunities to Reduce Emissions (C-MORE) program. In response, NAPA, the PCR Committee, was convened to discuss and address the review with the following changes:

- Expanded the geographic applicability of the PCR to include Mexico in addition to Canada, and the United States, following the same roadmap of regionalizing upstream datasets and harmonizing with Mexican standardizing organization, Organismo Nacional de Normalización y Certificación de la Construcción y Edificación (ONNCCE).
- Updated definitions: Red-lined definitions have been provided in the attached PCR document. Updated definitions include old numbering 3.9.17, 3.9.28 (new numbering 3.9.29) and 3.9.41 (new numbering 3.9.44). New definitions added for *Facility and product-specific EPD* (3.9.18), *Producer-average EPD* (3.9.42), *Product-average EPD* (3.9.43), and *Supply-chain specificity* (3.9.55).
- Updates to section 5.3, reflecting changes in definitions, outlining the types of EPDs that this PCR can be used to develop.
- References added to the underlying LCA (Mukherjee, 2021) highlighting *Assumptions and Limitations* in this section and in section 5.2.2; and to the tabular representation of background LCI in Annex I, version2, in sections 7.1.7.2.2, 7.1.7.2.3 and 7.1.7.2.4.
- Updates to use of PCRs and EPDs for upstream materials use in section 7.1.9.2.
- Updates to sections 10.6, 10.1 and 11, providing clarity on how the underlying LCA and the Emerald Eco-Label tool has been independently verified, and recent updates including the addition of Simulator tool and the Quality Control program, that add to the transparency and veracity of the EPDs.

ACI Training Certificate Program



Low-Carbon Concrete: Quantification, Design, and Compliance



Description:

- Provides a structured introduction on how carbon considerations are integrated into modern concrete design, material selection, specification, and construction, while maintaining required performance, durability, and constructability.
- Addresses the technical foundations of embodied carbon in concrete, including the role of cementitious binders, mixture design, and structural efficiency, as well as the use of Life Cycle Assessments (LCAs), Environmental Product Declarations (EPDs), and Product Category Rules (PCRs) to measure and communicate environmental impacts.

Learning Objectives:

1. Explain the sources of embodied carbon in concrete and the role of design and material decisions in reducing it.
2. Interpret and apply codes, standards, policies, LCAs, and EPDs related to low-carbon concrete.
3. Evaluate and implement mixture, material, and structural strategies to reduce carbon while meeting performance requirements.
4. Apply carbon-informed specification, submittal, and project delivery practices to manage risk and accountability.
5. Recognize emerging technologies and circular-economy approaches shaping the future of low-carbon concrete.

Table of Contents

1. The Why and the What: Understanding Carbon in Concrete (1.5 PDH)
2. Frameworks and Provisions: Codes, Standards, and Policy (2 PDH)
- 3. Measuring and Managing Carbon in Practice (1.5 PDH)**
- 4. Materials and Mixture Strategies for Low Carbon Concrete (2 PDH)**
5. Structural Efficiency and High-Performance Materials (1 PDH)
- 6. Specifications, Submittals, and Responsibility in Practice (2 PDH)**
7. Innovations and the Circular Future of Concrete (1 PDH)

MN EPD Grant Program Updates



2025-2026 Grantees:



- Generated **24 EPDs** for their stationary asphalt plant in Rosemount
- Utilized the Emerald EcoLabel tool



- **14** participating companies
- **27** plants enrolled (**18** portable + **9** stationary)
- As of 4/17/26: **150 EPDs** have been generated for **14** plants owned by **8** companies; Anticipated total by the end of the grant: **~300 EPDs**
- Utilized the Emerald EcoLabel tool



- **8** participating companies
- **29 plants** enrolled (all stationary)
- As of 4/17/26: **45 EPDs** have been generated for **3** plants owned by **2** companies; Anticipated total by the end of the grant: **200+ EPDs** for **29** plants owned by **8** companies
- LCA tools/providers utilized by participating plants: **34%** Climate Earth, **52%** WAP Sustainability (theta), **14%** Pathways AI

Program Requirements & Implementation

Policy Implementation

- GWP Limits based on benchmarking data published in respective industry-wide EPDs for certain materials
- EPD Disclosure for all eligible materials listed (concrete, steel, asphalt), even if no GWP limits are set at this time
- July 15, 2026 - Implementation date of GWP limits/EPD disclosure requirements (projects letting on or after this date)
- Reevaluate Tier 1 materials in subsequent program years based on data collected to establish/adjust GWP thresholds/limits

Product Category	Implementation Details
Concrete (used in buildings)	<p><u>GWP Limits Set Jan. 15, 2026:</u> Ready Mix Concrete limits based on the National Ready-Mix Concrete Association’s (NRMCA) North Central regional benchmarks published in the Industry-Wide EPD. (legislation: GWP limits no later than Jan. 15, 2026).</p> <p><u>EPD Mandatory Disclosure Starting 2026:</u> Concrete Masonry Units (CMU) and Precast.</p>
Steel Rebar (used in buildings)	<p><u>GWP Limits Set Jan. 15, 2026:</u> Based on Concrete Reinforcing Steel Institute’s (CRSI) Industry-Wide EPD. (legislation: GWP limits no later than Jan. 15, 2028)</p>
Structural Steel	<p><u>EPD Disclosure - Starting 2026:</u> Collect EPDs to identify subcategories and establish benchmarks. (legislation: GWP limits no later than Jan. 15, 2028). Hot-Rolled Steel, HSS tubes, Plate, Decking, Open-Web Steel Joists, & Cold-Formed Framing.</p>
Concrete Pavement	<p><u>EPD Disclosure - Starting 2026:</u> Collect EPDs to identify subcategories and establish benchmarks. (legislation: GWP limits no later than Jan. 15, 2028)</p>
Asphalt Pavement	<p><u>EPD Mandatory Disclosure - Starting 2026:</u> Collect EPDs to identify subcategories and establish benchmarks. (legislation: GWP limits no later than Jan. 15, 2028)</p>

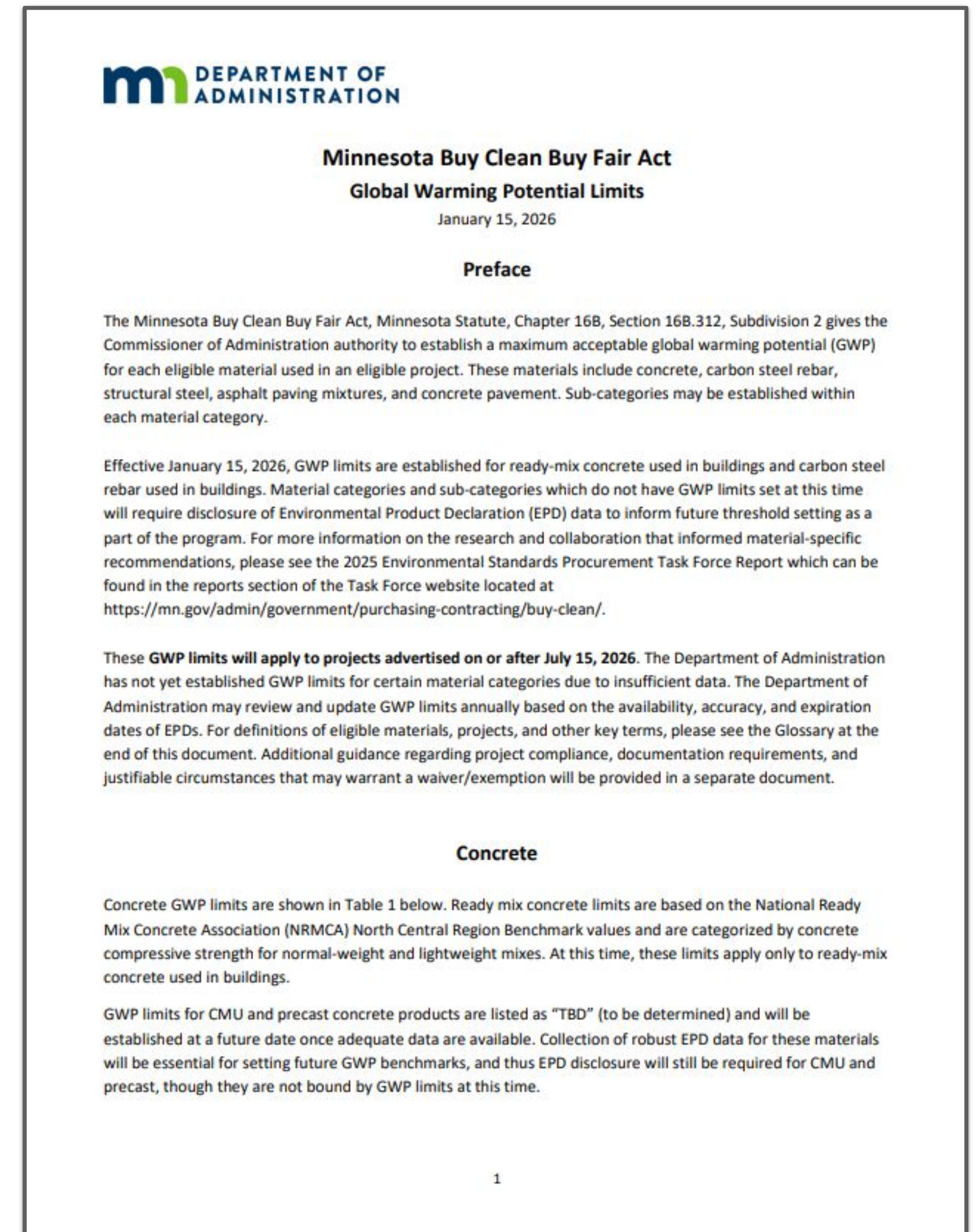
2026 GWP Limits

<https://mn.gov/admin/government/purchasing-contracting/buy-clean/>



Limits document has been posted on the [website](#). And the notice was be posted in the State Register on February 2 and another reminder notice will be posted on May 4.

- Will apply to eligible projects advertised on or after **July 15, 2026**
- Limits for **readymix concrete used in buildings**
- Limits for **carbon steel rebar used in buildings**
- **EPD disclosure** will be required for other eligible products listed, though limits are not set at this time



https://mn.gov/admin/assets/2026-MNBuyCleanGWPLimits_2026-01-15_tcm36-724796.pdf

2026 GWP Limits

Concrete

Table 1: GWP Limits for Concrete Materials

Material Category ¹		Maximum Allowable GWP Limit	
Ready-Mix Concrete ² Used in Buildings (kgCO ₂ e/m ³) based on concrete compressive strength	Normal-Weight concrete (NW)	≤2500 psi	241 kgCO ₂ e/m ³
		3000 psi	264 kgCO ₂ e/m ³
		4000 psi	312 kgCO ₂ e/m ³
		5000 psi	372 kgCO ₂ e/m ³
		6000 psi	394 kgCO ₂ e/m ³
		8000 psi	460 kgCO ₂ e/m ³
	Lightweight concrete (LW)	3000 psi	487 kgCO ₂ e/m ³
		4000 psi	537 kgCO ₂ e/m ³
		5000 psi	591 kgCO ₂ e/m ³
	Add 30% to these GWP limits where high early strength ³ concrete mixes are required for technical reasons.		
Concrete Masonry Units (CMU)		TBD ⁴	
Precast/Prestressed Concrete		TBD ⁴	

2026 GWP Limits

Steel Rebar

Table 2: GWP Limits for Steel Reinforcing Bar (Rebar) Used in Buildings Projects

Steel Product Category	Maximum GWP ¹ Limit at Mill or Manufacturer Gate	Equivalent GWP ¹ Limit Converted for use with Fabricated ² Product EPD
Steel Reinforcing Bar (Rebar) ³	0.755	0.854


Program Implementation

- Implementation Timeline
 - **Jan. 15, 2026** - Commissioner sets GWP limits/EPD disclosure requirements
 - **July 15, 2026** - Projects letting on or after this date must submit EPDs
- Guidance Documents
 - Waiver Requirements/Forms
 - EPD Submittal Form
- Database Development
- Training / Education

Waivers & Exemptions DRAFT

Justifiable circumstances that might warrant a waiver are described below. In addition to the waiver form, supplemental information may be required for certain waiver justifications - additional requirements are included in the following sections.

- 1. Technically Infeasible**
- 2. Significant Increase in Project Cost / Financial Hardship**
- 3. Significant Delay**
- 4. Results in Sole-Source of Material**
- 5. Emergency or Director's Order**
- 6. Geographic Impracticability**

 **DEPARTMENT OF ADMINISTRATION**

**Minnesota Buy Clean Buy Fair Act
Waivers & Exemptions**
February 2026

Preface

The Minnesota Buy Clean Buy Fair Act, Minnesota Statute, Chapter 16B, Section 16B.312, Subdivision 2 gives the Commissioner of Administration authority to establish a maximum acceptable global warming potential (GWP) for each eligible material used in an eligible project. These materials include concrete, carbon steel rebar, structural steel, asphalt paving mixtures, and concrete pavement. Sub-categories may be established within each material category.

Effective January 15, 2026, GWP limits are established for ready-mix concrete used in buildings and carbon steel rebar used in buildings. Material categories and sub-categories which do not have GWP limits set at this time will require disclosure of Environmental Product Declaration (EPD) data to inform future threshold setting as a part of the program. For more details on GWP limits, please visit the Environmental Standards Procurement Task Force website at mn.gov/admin/government/purchasing-contracting/buy-clean. For more information on the research and collaboration that informed material-specific recommendations, please see the 2025 Environmental Standards Procurement Task Force Report which can be found in the reports section of the Task Force website listed above.

Waiver and Exemption Justifications

For any eligible project, including new construction of a state building larger than 50,000 gross square feet of occupied or conditioned space; renovation of more than 50,000 gross square feet of occupied or conditioned space in a state building whose renovation cost exceeds 50 percent of the building's assessed value; or new construction or reconstruction of two or more lane-miles of a trunk highway, agencies shall submit compliant Environmental Product Declarations (EPDs) or receive a Department of Administration or Department of Transportation approved waiver for each eligible material. Agencies must submit a waiver form (<insert link here>) during the design or construction phase to the appropriate state departmental agency for approval prior to procurement of eligible materials.

Justifiable circumstances that might warrant a waiver are described below. In addition to the waiver form, supplemental information may be required for certain waiver justifications - additional requirements are included in the following sections.

- [1. Technically Infeasible](#)
- [2. Significant Increase in Project Cost / Financial Hardship](#)
- [3. Significant Delay](#)
- [4. Results in Sole-Source of Material](#)
- [5. Emergency or Director's Order](#)
- [6. Geographic Impracticability](#)

6. [Geographic Impracticability](#)

5. [Emergency or Director's Order](#)

4. [Results in Sole-Source of Material](#)

3. [Significant Delay](#)

2. [Significant Increase in Project Cost / Financial Hardship](#)

1. [Technically Infeasible](#)

Waivers & Exemptions DRAFT

1. Technically Infeasible

Minnesota's Buy Clean policy requires the submission of a **supply chain-specific, facility-specific Type III Environmental Product Declaration (EPD) that meets the ISO 14025 standard** developed and maintained by the International Organization for Standardization (ISO) for all eligible construction materials/products. EPDs are produced following product category rules

(PCRs), which are a set of specific rules, requirements, and guidelines for developing a Type III EPD for one or more products. **Both EPDs and PCRs must have periods of validity which are defined when they are published.** Per ISO 14025, the intent of fixed periods of validity is for the development and maintenance of its content, consideration of changes in relevant information affecting the PCR, and its selection procedure for predetermined parameters.

Some reasons why it might be technically infeasible to obtain compliant EPDs include, but are not limited to:

- **The EPD is expired and cannot be renewed because the corresponding PCR has expired.**
- **The particular material is not covered by the scope of the relevant PCR - for example, a type of steel that is not included in the PCR for structural steel.**

If providing an EPD for an eligible material would result in noncompliance with Minnesota State Building Codes or other applicable codes, then one will not be required (waived). For example, if the material with an EPD does not meet the strength, serviceability, stability, or other structural requirements as necessary for the project.

To determine technical infeasibility, the Departments of Administration or Transportation will review whether a PCR is available, current, and whether an eligible material is within the scope of an available PCR. The Department of Administration will maintain a list of in-scope and exempt eligible materials for designers. This information will be included in project specifications as necessary. For example, epoxy coated rebar is not covered by the scope of the reinforcing steel PCR and therefore it is technically infeasible to develop an EPD. The project's bid opening date will be used to determine the applicable PCR for an eligible material so that bidders and suppliers can fully consider those requirements at time of bid. Absence of an eligible material's PCR at time of bid would exclude EPD requirements for that eligible material.

Waivers & Exemptions DRAFT

2. Significant Increase in Project Cost / Financial Hardship

The development and publication of a facility-specific, Type III EPD incurs a cost for the producer that is essentially fixed regardless of the quantity of material to be produced or the overall project size. There will be cases for a project where publication of the EPD, which will be included in the bid cost, is significant relative to the cost of the quantity of that material being bought and/or the total cost of the project.

It is estimated that the cost of developing a facility specific EPD will be approximately \$X,XXX per material/product. For each of the eligible materials that cost will likely be spread over multiple projects purchasing these materials. Therefore, a cutoff value equal to the engineer's value for the product based on quantity was selected to limit the cost of material to two and a half times the cost to develop an EPD.

If procuring a product with an EPD will increase the project cost by XX percent (XX%) or more compared to procuring the product without an EPD, then the product will be waived upon submission and approval of a waiver form. The percentage of cost increase must be demonstrated through a cost analysis calculation and submitted with the waiver request.

Still in the process of developing definition for Significant Increase in Project Cost / Financial Hardship" and "Significant Delay" that apply specifically for buildings and specifically for MnDOT projects

Waivers & Exemptions DRAFT

3. Significant Delay

The development and publication of a facility-specific EPD takes an amount of time for the producer that is essentially fixed regardless of the quantity of material to be produced or the overall project size. There will be cases where the time required to develop and publish the EPD is significant relative to the duration of the project or would otherwise significantly delay the start or completion of the project.

It is estimated that it takes approximately X to X working days to develop a facility-specific EPD, assuming the life cycle assessment as required by the PCR has already been completed. Therefore, if a contract is less than X working days this will generally not allow the producer to develop and publish a facility-specific EPD prior to installation, which could result in a significant delay to the project.

Still in the process of developing definition for "Significant Increase in Project Cost / Financial Hardship" and "Significant Delay" that apply specifically for buildings and specifically for MnDOT projects

Waivers & Exemptions DRAFT

4. Results in Sole-Source of Material

Exemption is allowed where there is only one viable material supplier in order to allow for competitive pricing. Examples include where no other producers or vendors have made EPDs available or do not meet the GWP threshold. A single source request form must be completed and submitted; the form can be found here:

https://mn.gov/admin/assets/RECS-CS-SingleSourceJustificationForm_tcm36-208500.doc

PROFESSIONAL/TECHNICAL CONTRACT SINGLE SOURCE REQUEST FORM	
<small>Submit to: Department of Administration, Materials Management Division, Professional and Technical Service Contracts, 112 Administration Building, 50 Sherburne Avenue, St. Paul, MN 55155. This form should be submitted with the Professional/Technical Contract Certification form for all contracts over \$5,000.</small>	
DEPARTMENT	DIVISION
PROPOSED CONTRACTOR	CONTRACT PERIOD
Name of company and contact person:	_____ to _____
Address:	<small>*Note: According to Minn. Stat. 16C.08 Subd. 3(5), the combined contract and amendment cannot exceed five years, unless otherwise provided for by law. The term of the original contract must not exceed two years unless the commissioner determines that a longer duration is in the best interest of the state. If you are requesting that the original contract length be longer than two years, please attach a written justification.</small>
Telephone:	
Web Address (if available):	
CONTRACT PRICE	
\$ _____	
DESCRIPTION OF SERVICE REQUIRED:	
SINGLE SOURCE CATEGORY (Check applicable box, attach documentation or provide explanation below.)	
<input type="checkbox"/> Legislation or appropriation mandates use of contractor (Legislation attached)	<input type="checkbox"/> Software license renewals, additions or upgrades available from only one source
<input type="checkbox"/> Expert witness required by AGO (attach documentation)	<input type="checkbox"/> Brand compatibility available from only one source
<input type="checkbox"/> Mailing lists, subscriptions or media advertising	<input type="checkbox"/> <u>Other</u> proprietary situation
<input type="checkbox"/> Warranty <u>voided</u> if service <u>provided</u> by <u>other</u> contractor	<input type="checkbox"/> Other
THIS PROCURMENT IS A SINGLE SOURCE BECAUSE (attach additional page if needed):	
NOTE: The following are unlikely to be sufficient single source justifications:	
<ul style="list-style-type: none"> ◆ Personal or agency preference for a contractor ◆ Agency perception that the vendor is the best qualified (this should be determined through a competitive process) ◆ Lack of agency planning resulting in limited time to conduct a competitive procurement ◆ Past or existing relationship with the vendor ◆ Special incentive or deal offered (can be assessed in open and competitive solicitation) ◆ Agency convenience 	

Rev 7/03

SEARCH (Check applicable boxes and describe as indicated.)	
<input type="checkbox"/> No search was conducted or necessary because (explain):	RESULTS
A search was conducted consisting of: (check all that apply) <input type="checkbox"/> Market research <input type="checkbox"/> Other vendors contacted <input type="checkbox"/> Public notice given <input type="checkbox"/> Other	AFTER THE SEARCH...
	<input type="checkbox"/> no alternatives were identified <input type="checkbox"/> no alternatives were deemed acceptable (explain below)
Description of search identified above:	

PRICE (Check applicable boxes and provide description below.)	
Price has been fairly and reasonably established by:	<input type="checkbox"/> Discount off published price <input type="checkbox"/> Market survey <input type="checkbox"/> Other
<input type="checkbox"/> Independent estimate	
<input type="checkbox"/> Comparison to public sector contract pricing	
<input type="checkbox"/> Comparison to previous comparable pricing	
Describe methodology and results (attach any written supporting data, e.g. survey or market analysis):	

CERTIFICATIONS	
I certify:	
1) I recognize that state law requires the use of competitive solicitations unless exempted by law. I have reviewed the information and materials relevant to this procurement of services and am requesting approval of an exception to the competitive process for the reasons described. 2) <u>the</u> price to be paid to the proposed single source contractor is fair, reasonable, and provides the best value to the State of Minnesota; and 3) this request for an exception to the competitive solicitation process is not the result of inadequate advance planning or for purposes of securing the services of a preferred contractor	
Agency Head/Delegate Signature	Date

Rev 7/03

Waivers & Exemptions DRAFT

5. Emergency or Director's Order

An emergency, as defined in MN Statute may be used as the basis of a waiver request. The approval correspondence by the Procurement Official must be provided with the waiver request.

6. Geographic Impracticability

Some reasons why it might be geographically impractical to obtain compliant EPDs include, but are not limited to:

- Product is more readily available across state boundaries (outside of Minnesota)
- Product is not available near project site and must be transported from a manufacturer/facility farther away (this could result in significant increase in project cost, project delay, and/or a single source situation)

Submittal Process

Vertical Construction (Buildings)

- Predesign - Waiver Requests
- Design Phase & Construction Phase - EPD Submittal Template
- Database Developments

Horizontal Construction - MnDOT - more details later in the presentation

- MnDOT Special Provisions - updated requirements
- EPD requirements and file-naming convention
- No later than 12 weeks after installation, must submit EPDs and verify final material data

EPD Reporting Template - DRAFT



Material/Product Data

Material Category	Material Subcategory	CSI Specification Section or Bid Item No.	Manufacturer Name	Manufacturing Facility/Plant/Mill Location*	Product Name & Description
Ex. Concrete	CIP ReadyMix Concrete	03 30 00	ABC Cem Inc.	123 Main Street, Minneapolis, MN 55411	4000 PSI, 3/4, FLY, 4% AIR, VMA
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Application/ Usage Details	Product Quantity (in Declared Units**)	Declared Units ^b	Product Category Rule (PCR) listed on EPD	EPD Expiration Date	[A1] GWP-100 (kgCO2e per Declared Unit*)	[A2] GWP-100 (kgCO2e per Declared Unit*)	[A3] GWP-100 (kgCO2e per Declared Unit*)	[TOTAL = A1+A2+A3] GWP-100 (kgCO2e per Declared Unit*)
FOOTINGS	1203	m3 (cubic meter)	NSF International PCR for Concrete, v.2.3 extension, 2024-02-28	8/9/2029	218.00	11.10	15.20	245.00

- Industry-aligned data fields
- Dropdown menus for Material Categories
- Mandatory and Voluntary Materials/Products

EPD Reporting Template - DRAFT



Material Category	CSI Spec Section	Subcategory / Product Description	Standard Declared Unit (for reporting GWP from EPDs)
Asphalt	02 25 00	Asphalt Paving Mixtures	mt (metric tonne)
Concrete	03 30 00	CIP ReadyMix Concrete - Standard	m3 (cubic meter)
	03 30 00	CIP ReadyMix Concrete - LW*	m3 (cubic meter)
	03 30 00	CIP ReadyMix Concrete - HE**	m3 (cubic meter)
	03 30 00	CIP ReadyMix Concrete Paving	m3 (cubic meter)
	03 41 00	Precast Concrete - Structural	mt (metric tonne)
	03 45 00	Precast Concrete - Architectural	mt (metric tonne)
	04 22 00	Concrete Masonry Unit (CMU) Block	m3 (cubic meter)
Steel	03 20 00 / 03 21 00	Concrete Reinforcing Steel Bars (rebar)	mt (metric tonne)
	05 12 00	Hot-rolled sections	mt (metric tonne)
	05 12 00	Plate	mt (metric tonne)
	05 12 00	HSS	mt (metric tonne)
	05 20 00	Steel joists (open web)	mt (metric tonne)
	05 31 10	Steel decking	mt (metric tonne)
	05 40 00	Cold-formed steel (stud framing)	mt (metric tonne)
	05 00 00	Aluminum extrusions (optional)	mt (metric tonne)
	07 74 00	Metal wall panels (optional)	100 m2 (per 100 square meters)
Brick	04 22 00	Brick Masonry (Clay) (optional)	m2 (square meter) ^c
Glass	08 80 00	IGUs (optional)	m2 (square meter)
	08 81 00	Panes (optional)	mt (metric tonne) or kg (kilogram)
Insulation	07 21 00	Thermal Insulation - Heavy Density (optional)	1 m2 RSI-1
	07 21 00	Thermal Insulation - Light Density (optional)	1 m2 RSI-1

* LW = Lightweight

** HE = High Early Strength

c. See Table 2 of the applicable PCR for functional unit definitions for clay brick, clay brick pavers, and structural clay tile products.

Database Development



<https://www.builtcold.com/>

- Federal Buy Clean Initiative
- Buy Clean Colorado Act
- Washington State Buy Clean Buy Fair
- Minnesota Buy Clean



<https://www.buildingtransparency.org/>



<https://www.hpd-collaborative.org/>

Database Development



Phase 1: VERTICAL CONSTRUCTION

- Configuration
- Pilot Launching
- Operations & Refinement

Database Development



Preliminary Schedule of Deliverables

MN Buy Clean Database Deliverables & Timeline		April 2026				May 2026				June 2026					July 2026				August 2026				
		6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31
PHASE 1: VERTICAL CONSTRUCTION																							
Configuration																							
D1	Distinct agency-specific Basis of Design and project reporting workflow. Discuss and document database design, functionality, interface, process, Global Warming Potential (GWP) limit thresholds/baselines, and data storage/logistics/access/reporting.																						
D2	A Minnesota-specific BuiltCold database configuration - initial DEMO version. Soft launch an internal demo version of the database environment (cloud-based online database platform) to conduct internal testing of customized project workflows.																						
Piloting & Testing																							
D3	Preliminary pilot project template reports (x3 projects). Conduct 3 test/pilot projects to refine workflow, user interface, tool development, and reporting methodology. Refine/adjust database configuration (deliverable D2) as needed.																						
Operationalizing & Fine-Tuning																							
D4	A Minnesota-specific BuiltCold database configuration - public LAUNCH version. Finalize and publicly launch database. Tentative Launch Date: July 1, 2026																						
D5	Training/education documents. Develop training materials and schedule. Deliver 3-4 training sessions (webinar style).																						
D6	A suite of customizable, agency-aligned digitized reporting templates. Refine reporting metrics and produce a template report formatted to support tactical project management and program-level evaluation. Export reports/data at agency agreed upon project intervals (e.g. monthly, quarterly, annually, etc.).																						
D7	Database longevity/maintenance plan. Develop a plan forecasting and identifying anticipated project needs for subsequent project years. Refine plan as needed as program progresses.																						

Database Development

- Streamlined workflow and project team communications
- Embedded baselines
- Customized reporting templates, dashboards, exporting options
- Future benchmarking/threshold metrics
- Future expansion/capabilities - data automation and software integration

Database Development

01 Program Administrators

Run your program without the overhead. Coordinate projects across agencies, keep contractors on track, and compile reports without chasing down data.

02 AEC Teams

Source compliant materials without the manual effort. Coordinate across teams, automate submittals, and move through agency review with less friction.

03 Manufacturers

Confirm your products meet program thresholds. Get brought into design conversations earlier and make your EPDs accessible to every project team that needs them.

Add Member

Add a new member to the program.

Email Address

Role

Program Admin

Creates projects, assigns owners, manages partners, and maintains accurate program data.

Project Owner

Manages project delivery, requests/reviews data, and ensures all materials and EPDs meet requirements.

Project Admin

Coordinates project activities, inputs data, and collaborates with owners and partners to meet compliance goals.

Project Partner

Provides project-level data and documentation (EPDs, HPDs, materials) to support compliance.

Cancel

Add Member

Database Development



BUILT COLD

SEARCH	CATEGORY	SUBCATEGORY	STRENGTH	BASELINE			
<input type="text" value="Search manufacturers..."/>	Concrete	Ready Mix	3000-4000 psi	CLF National			
MANUFACTURER	PRODUCT TYPES			TOP 20%	TOP 40%	ABOVE AVERAGE	DISTANCE
✓ Smyrna Ready Mix Concrete LLC Quivas	Ready Mix	Concrete	Shotcrete	5 products	12 products	13 products	4.45 miles
PRODUCT	CATEGORY	BUY CLEAN COMPLIANCE ?		CLF BASELINE ?			
<input type="checkbox"/> Mix 30052 EPD active	Ready Mix PCR v2.1	236.0 kgCO ₂ e @ 3002 psi Top 20% Compliant		262 kgCO ₂ e / m ³ 10% below			
<input type="checkbox"/> Mix A3501 EPD active	Ready Mix PCR v2.1	253.0 kgCO ₂ e @ 3002 psi Top 20% Compliant		262 kgCO ₂ e / m ³ 3% below			
<input type="checkbox"/> A3700 EPD expiring this year	Ready Mix PCR v2.1	270.0 kgCO ₂ e @ 3002 psi Top 40%		262 kgCO ₂ e / m ³ 3% above			
<input type="checkbox"/> Mix 30055 EPD active	Ready Mix PCR v2.1	286.0 kgCO ₂ e @ 3002 psi Top 40%		262 kgCO ₂ e / m ³ 9% above			
<input type="checkbox"/> Mix 35056 EPD active	Ready Mix PCR v2.1	311.0 kgCO ₂ e @ 3495 psi Above Average		262 kgCO ₂ e / m ³ 19% above			
<input type="checkbox"/> Mix 35055	Ready Mix	312.0 kgCO ₂ e @ 3495 psi		262 kgCO ₂ e / m ³			

Submittal Process

Vertical Construction (Buildings)

- Predesign - Waiver Requests
- Design Phase & Construction Phase - EPD Submittal Template
- Database Developments

Horizontal Construction - MnDOT - more details later in the presentation

- MnDOT Special Provisions - updated requirements
- EPD requirements and file-naming convention
- No later than 12 weeks after installation, must submit EPDs and verify final material data



(2062) Environmental Product Declaration (EPD)

Emil Bautista, PhD, PE
Sustainability Engineer, OMRR

Special Provisions

S-1 (1603) MATERIALS: SPECIFICATIONS, SAMPLES, TESTS, AND ACCEPTANCE (EPD)

NEW 06/10/25 ◀ DO NOT REMOVE THIS DATE. IT NEEDS TO STAY IN FOR THE CONTRACTORS.

Always use this write-up when using SP2025-XX (2062) Environmental Product Declaration (EPD).

SP2025-XX

S-1.1 Add the following to 1603, “Materials: specifications, Samples, Tests, and Acceptance”:

1603.5 Development of Global Warming Impact Standards

The Contractor shall submit supply chain-specific Type III Environmental Product Declarations (EPDs) for materials in accordance with S-2 (2062) Environmental Product Declaration. The provisions of the Buy Clean and Buy Fair Minnesota Act, (Sec. 16B.312 MN Statutes) require incorporating global warming impact standards into the state's procurement process for construction materials used in public infrastructure projects. To achieve this the Department is requesting the Contractor to submit supply chain-specific Type III Environmental Product Declarations (EPDs) for all eligible materials as defined by State Statute. The reporting of environmental impacts will account for embodied carbon of construction materials in accordance with the Buy Clean and Buy Fair Minnesota Act, ISO 21930, ISO 14025 and ISO 14040/44.

(2062) Environmental Product Declaration (EPD)

S-2 (2062) ENVIRONMENTAL PRODUCT DECLARATION (EPD)

NEW 12/19/2025 ◀DO NOT REMOVE THIS DATE. IT NEEDS TO STAY IN FOR THE CONTRACTORS.

Use this special provision when the project meets any of the following criteria. Contact Emil Bautista, Office of Materials and Road Research, to determine the number of EPDs that will be required on this project.

- New construction, rehabilitation, mill and overlay, or reconstruction of two or more lane-miles of a trunk highway pavement.
- New construction or re-decking with a total bridge deck quantity of 6000 square feet or more.
- ADA projects with a minimum of more than 1 intersection in the project

SP2025-XX

S-2.1 DESCRIPTION
This Work consists of submitting Type III Environmental Product Declarations (EPDs) in accordance with S-1 (1603) Materials: Specifications, Samples, Tests, and Acceptance (EPD). These EPDs are Cradle-to-Gate, including life cycle stages A1 to A3: raw material supply, transport to the manufacturing site, and manufacturing.

S-2.2 MATERIALS - BLANK

S-2.3 CONSTRUCTION REQUIREMENTS
Provide EPDs for the following materials:

Table SP2062.3-1
Materials Requiring EPDs

Spec No.	Description	Minimum Project Quantity	EPDs Required Frequency	Estimated EPDs per Material
2301	Concrete Pavement	3,500 cubic yards	1 per mix design	4
2301	Dowel Bar	No minimum	1 per diameter	1
2301	Supplemental Pavement Reinforcement	No minimum	1 per source	1
2301	Drill & Grout Reinf Bar (Epoxy Coated)	No minimum	1 per source	1
2301	Reinforcement Bars (Incidental)	No minimum	1 per source	1
2360	Plant Mixed Asphalt Pavement	1000 tons	1 per mix design	2 to 3
2363	PASSRC and PASB	1000 tons	1 per mix design	1
2401	Concrete Bridge Construction	500 cubic yards	1 per mix design	3 to 5
2401	Reinforcement Bars	No minimum	1 per source	1
2401	Reinforcement Bars (Epoxy Coated)	No minimum	1 per source	1
2402	Steel Bridge Construction	No minimum	1 per source	3
2521, 2531	Walks and Concrete Curbing	500 cubic yards	1 per mix design	2
2521	Drill & Grout Reinf Bar (Epoxy Coated)	No minimum	1 per source	1
2533	Concrete Median Barriers	500 cubic yards	1 per mix design	2

Provide Type III Cradle-to-Gate EPDs meeting ISO standards ISO 21930, ISO 14025 and ISO 14040/44. Use product specific supply chain data, including an EPD for upstream cement or asphalt cement production for concrete and bituminous mixtures mix-design specific EPDs. Use industry average values when product specific supply chain data does not exist. Cradle-to-gate EPDs report on the production stage of the life cycle, encompassing A1 to A3 modules: raw material extraction, transportation to the plant, and manufacturing processes. When providing the Mix Name for the EPD, comply with the following mix naming conventions:

- (1) Bituminous mixtures – Mix Number and MDR number (e.g., SPWEB340_PG58H-34, 0-2025-999)
- (2) Concrete mixtures – Mix Number and RM, JMF, or PS Sheet Number (e.g., 3F52F, RMX999-999)

Notify the Engineer, prior to the preconstruction meeting, when a source does not have 12 months of data to support development of the EPD.

Produce EPDs files in Portable Document Format (PDF) or OpenEPD JavaScript Object Notation (JSON) Format using the following naming convention SP_Number_Pay Item Name_Mix Name_EPd.pdf. (e.g., SP1234-568_Bridge Slab Concrete_3YHPC-S_JMF25-999_EPd.pdf or SP1234-568_Reinforcement Bars_EPd.pdf.)

Submit Type III EPDs per source and location as shown in in Table SP2062-1, with the associated delivered quantities, in twelve weeks or less of completion of final installation of the Contract item to the Engineer and to epd.mn.dot@state.mn.us. Include the SP Project number, and when applicable, the MnDOT Mix ID for the concrete and asphalt mixtures in the subject line.

S-2.4 METHOD OF MEASUREMENT
The Engineer will measure Environmental Product Declaration by the number of Environmental Product Declarations, as shown in Table SP2062-1, submitted for each unique material and mix design.

S-2.5 BASIS OF PAYMENT
The Contract Unit Price for Environmental Product Declaration is compensation in full for developing and supplying the EPDs for the Materials required to complete the Work. The Engineer will pay for that EPD once per Contract when the same EPD is used for more than one pay item. The Engineer may pay for additional EPDs needed to complete the Work.

The Department will pay for Environmental Product Declaration shown in in Table SP2062.3-1 on the basis of the following schedule:

Item No.	Item	Unit
2062.602	Environmental Product Declaration	each

Table SP2062.3-1 - Materials Requiring EPDs

Spec No.	Description	Minimum Project Quantity	EPDs Required Frequency	Estimated EPDs per Material
2301	Concrete Pavement	3,500 cubic yards	1 per mix design	4
2301	Dowel Bar	No minimum	1 per diameter	1
2301	Supplemental Pavement Reinforcement	No minimum	1 per source	1
2301	Drill & Grout Reinf Bar (Epoxy Coated)	No minimum	1 per source	1
2301	Reinforcement Bars (Incidental)	No minimum	1 per source	1
2360	Plant Mixed Asphalt Pavement	1000 tons	1 per mix design	2 to 3
2363	PASSRC and PASB	1000 tons	1 per mix design	1
2401	Concrete Bridge Construction	500 cubic yards	1 per mix design	3 to 5
2401	Reinforcement Bars	No minimum	1 per source	1
2401	Reinforcement Bars (Epoxy Coated)	No minimum	1 per source	1
2402	Steel Bridge Construction	No minimum	1 per source	3
2521, 2531	Walks and Concrete Curbing	500 cubic yards	1 per mix design	2
2521	Drill & Grout Reinf Bar (Epoxy Coated)	No minimum	1 per source	1
2533	Concrete Median Barriers	500 cubic yards	1 per mix design	2

STATEMENT OF ESTIMATED QUANTITIES

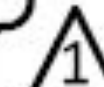
SP 0416-55

TH 197

ROADWAY

CITY UTILITIES

NOTE	SHEET NO.	TAB	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	ESTIMATED QUANTITY (A)	ESTIMATED QUANTITY (B)
			2011.601	AS BUILT	LUMP SUM	1	1	
			2016.601	CONTRACT MANAGEMENT	LUMP SUM	1	1	
			2016.601	PUBLIC INFORMATION MANAGEMENT	LUMP SUM	1	1	
			2021.501	MOBILIZATION	LUMP SUM	1	0.98	0.02
			2051.501	MAINT & RESTORATION OF HAUL ROADS	LUMP SUM	1	1	
			2062.602	ENVIRONMENTAL PRODUCT DECLARATION	EACH	4	4	



Concrete Mix EPDs Naming Requirements

Standardize EPD names so mixes can be traced to MnDOT-approved sources

Required Data Fields (must be present):

- **MnDOT Mix Number** (e.g., RM051)
- **Corresponding Sheet Number** (RMX / RMS / JMF / PS — must match supplier sheet ID)
- **MnDOT Grade** (A, B, C, F, etc.)
- **Supplying Plant Location** (must match the plant that produced the mix)

Asphalt Mix EPDs Naming Requirements

Ensure asphalt EPDs capture design, specification, and project traceability

Required Data Fields (must be present):

- **Mix Design Report Number (MDR #)**
- **Specification Entity**
- **Specification Number & Mixture Designation**
- **Gradation Type** (Dense, Open, Gap)
- **Mix Design Method** (Superpave)
- **Nominal Maximum Aggregate Size** (NMAS, mm)
- **Performance Grade (PG)** of Asphalt Binder
- **MnDOT Project Number** (SP#####-###) and **Roadway** (e.g., TH###)

Lettings

Month	Number of Projects	Estimated number of EPDs			
		Asphalt Mix	Concrete Mix	Steel	Total
January	3	8	6	5	19
February	11	13	26	14	53
March	6	14	21	10	45
April	8	18	40	19	77
May	12	17	10	5	32
June	0	0	0	0	0
July	1	0	2	1	3
Grand Total	41	70	105	54	229

Data Analysis Focus Areas

- Identify **trends** and **outliers**
- Determine **impacts of underlying items**
- Understand where **site-specific** vs. **industry-average** data is used
- Evaluate **precision** in reported data
- Consider **Mixture Specification influences**:
 - RAP percentages
 - Supplementary cementitious materials

Future Training/Education

- Database training
 - webinar-style focused trainings
 - Interactive walk-throughs/tours
- Late June/early July for Buildings-focused session (TBD)
- Additional training in September (TBD)
- Potential certification program for plants collecting and inputting data to generate EPDs
 - consistency - simplified and unified approach across EPD providers/tools, material suppliers, and agencies

Next Steps

- Summer 2026
 - Program Implementation and Operationalization
 - Database piloting and launch
 - Training
- 2026 and beyond...
 - Track PCR updates and industry updates
 - Re-evaluate EPD data and limit-setting for Tier 1 & Tier 2 materials
 - Asphalt Paving, Concrete Paving, Structural Steel, Precast Concrete, CMU, CFMF
 - Glass, Insulation, Aluminum
 - December 2026 report updates
- December 2027 Legislative Report updates
- 2028, January 15 - Establish a maximum Global Warming Potential (GWP) for structural steel and, after conferring with the commissioner of transportation, for asphalt paving mixtures and concrete pavement

Upcoming Meetings

- **June 17, 2026 - ESPTF Mtg#12** (In Person), 10am-12pm
 - Office of Materials and Road Research
Technical Certification Addition Classrooms
1400 Gervais Avenue, Maplewood, MN 55109
 - For location and parking information, please visit
<https://www.dot.state.mn.us/technical-certification/tcc-index.html>
- **September 16, 2026 - ESPTF Mtg#13** (TBD), 10am-12pm
- **October 14, 2026 - ESPTF Mtg#14** (TBD), 10am-12pm

Meeting information, agendas, and notes will be updated on the Task Force website:

<https://mn.gov/admin/government/purchasing-contracting/buy-clean/>

Minnesota Task Force Timeline

2023 October 1 - Task Force established

2024

- February 22 - EC Context: Concrete and Asphalt
- March 14 - EC Context: Steel, Rebar and Other Materials
- April 25 and May 23 - Bidding and Procurement
- July 1 - Pilot Program begins
- Summer/Fall - Material-specific and Pilot Program Working Groups (WG)
- Oct 23 - ESPTF Mtg#6: Concrete and Asphalt WG
- Nov 20 - ESPTF Mtg#7: Steel and Rebar WG
- Dec 18 - ESPTF Mtg#8: Pilot Program and Other Materials

2025

- March 19, 2025 - Mtg#9: Task Force Recommendations
- May 8, 2025 - Draft Report sent to Task Force for comment
- Spring - Draft Report, Select Grant Awardees & Distribute Funds
- Summer/Fall - Draft Report Staff Reviews and Revisions
- Oct 8 - Mtg#10: TF Recommendations & Legislative Report
- December 1 - Report to the Legislature

2026

- **January 15** - Global Warming Potential (GWP) established for **concrete and rebar used in buildings.**
- **April 22 - ESPTF Mtg#11 (Virtual)**
- **June 17 - ESPTF Mtg#12 (In Person)** MnDOT Office of Materials and Road Research, Maplewood, MN 55109
- Summer/Fall Training (TBD)
- **July 15** - Implementation date of GWP limits/EPD disclosure requirements (projects letting on or after this date)
- **September 16 - ESPTF Mtg#13 (TBD)**
- **October 14 - ESPTF Mtg#14 (TBD)**
- December 1 - Report to the Legislature

2027

- December 1 - Report to the Legislature

2028

- January 15 (no later than) - Establish a maximum GWP for structural steel and, after conferring with the commissioner of transportation, for asphalt paving mixtures and concrete pavement
- December 1 - Report to the Legislature

2029

- January 1 - Task Force ends

Member Discussion and Questions

Public Comments and Questions