Part B for: commercial flushometer valves
March 8, 2024 | Sustainable Minds | Contact Kim Hammer (kim@sustainableminds.com)

EPD use case goal: 1, 2 or 3

EPD use levels are cumulative. Transparency is the baseline. To create a 'Data source' conformant PCR, all criteria in all checklists must be documented.

1. Program Operator (PO) checklist Version 1.0, May 25, 2022 | ACLCA PCR Open Standard 2022

Categories	#	Criteria	ISO reference	Supporting documentation	EPD use	3 Data source 2 Procurement 1 Transparency How criteria were met	Due
Organizational	**Ground rules**					**How criteria were met**	**Due**
	☑ 1	Prior to using the ACLCA PCR Guidance 2022 to develop PCRs, the PO **shall** use this guidance to develop and publish conformant program instructions that describe the process of PCR development aligned with ISO/TS 14027.	**This guidance**	**General program instructions (governance document):** • ACLCA PCR Guidance 2022 conformant statement with version number	**1 Transparency**	Updated program instructions published to SM website http://www.sustainableminds.com/files/transparency/SM_Governance_and_program_rules.pdf	Complete
	☑ 2	PO **shall** use this checklist to guide the creation of a PCR, identify how criteria were met, and provide the completed Program Operator Checklist and PCR Review Panel Checklist to the PCR Review Panel.	**This guidance**	**PCR supporting documentation:** • Completed checklist	**1 Transparency**	Completed checklists saved with the PCR supporting documentation.	Complete
	☑ 3	PO **shall** be the secretariat of the PCR and manage an open and transparent process to develop or update a PCR. This process **shall** include public notices prior to PCR development and an open consultation process with interested parties while the PCR Committee remains active. PO **shall** publish the intention to develop (or update) a PCR on its website, in relevant industry and trade publications and/or news services, and through centralized notification mechanisms. The announcements **shall** include contact information that allows interested parties to request more information about participation in the PCR development or review process. Interested parties may include material suppliers, manufacturers, trade associations, purchasers (such as architects, designers, specifiers, contractors, and engineers), users, non-governmental organizations (NGOs), and public agencies.	**14027 Clause 6.4.1**	**PCR supporting documentation:** • Date(s) announcement(s) were posted and where	**1 Transparency**	Public notice on the Sustainable Minds website announcing the new bidet seat Part B on March 21, 2023: http://www.sustainableminds.com/transparency-report-program/part-b Public notice on the Sustainable Minds website announcing the renewal of existing Part Bs on February 23, 2023: http://www.sustainableminds.com/transparency-report-program/part-b Email blast on March 24, 2023 to mailing lists of LCA professionals, building and construction industry and trade associations, and manufacturers with published transparency documentation listed in the Transparency Catalog under the plumbing CSI MasterFormat Division (22 00 00).	Complete
	☑ 4	PO **shall** determine whether to create a new PCR or to adapt an existing PCR from other geographic regions. The PO **shall** justify the determination in the PCR.	**14027 Clause 6.4.2, 6.4.3**	**PCR:** • Identify existing PCRs considered, and provide justification for creating a new PCR. • If new, identify the supporting LCA. • Describe how existing PCRs will be adapted.	**2 Procurement**	N/A	N/A
	☑ 5	PO **shall** evaluate upstream and downstream PCRs in the value chain to be considered for alignment. PO **shall** list relevant PCRs in the PCR. *Note: Also see Criterion 15 for the process of determining when a PCR may be updated.*	**14044** **14027 Clause 6.4.3** **This guidance**	**PCR supporting documentation:** • Identify existing upstream PCRs for the major inputs to the product(s) considered in the PCR. • Describe differences in allocation rules or other potential conflicts and how they were resolved. • Identify existing downstream PCRs that use products/materials from the PCR and how inconsistencies were resolved.	**3 Data source**	N/A	N/A
	☑ 6	PO **shall** harmonize PCR activities with other EPD programs to avoid unnecessary duplication and proliferation of similar PCRs, and align on mutual recognition agreement (MRA) requirements. PO **shall** list relevant PCRs in the PCR. *Note: Refer to both the ACLCA's PCR library and the North American PCR Catalog: Building & Construction Materials https://www.transparencycatalog.com/na-pcr-catalog-building-products*	**14027 Clause 6.5.5** **14029 Clause 7, 9.2**	**PCR supporting documentation:** • Identify whether this criteria is applicable. • Identify other POs engaged to harmonize PCR activities and opportunities explored (joint development of new, merging, application of existing, or adaption of existing). • MRA between POs one exists.	**1 Transparency**	Addressed in Program operator responsibilities section of each Part B.	Complete
	☑ 7	PO **shall** publish and implement procedures for an appeals mechanism to ensure prompt and impartial handling of procedural complaints regarding any action or inaction of the PCR Committee, PCR Review Panel, or Program Operator.	**14027 Clause 6.4.4**	**General program instructions (governance document):** • Explanation of appeals process	**1 Transparency**	Addressed in section 10.0 of the governance document.	Complete
	☑ 8	PO **should** include a method for addressing data quality in its general program instructions. *Note: Refer to the addendum "Assessing Data Quality of Background Life Cycle Inventory Datasets"* for an example data quality assessment method.		**General program instructions (governance document):** • Method for Data Quality Assessment	**2 Procurement**	N/A	N/A
	PCR committee formation					**How criteria were met**	**Due**

☑	9	PO **shall** actively reach out to interested parties (including parties outside the PO's country or region) to ensure that the PCR Committee is composed of independent members, making sure that the interests of one party do not dominate the PCR development process. No single interested party category (at individual, organizational, or sectoral levels) shall dominate the membership of a PCR Committee. Interested parties may include material suppliers, manufacturers, trade associations, purchasers (such as architects, designers, specifiers, contractors, and engineers), users, non-governmental organizations (NGOs), and public agencies.	**14025 Clause 5.5, 6.5, & 9.3** **14027 Clause 6.4.1 and 6.4.2**	**PCR:** • List of PCR Committee members with employer and/or other entity on behalf of which they are participating. **PCR supporting documentation:** • Description of interested party outreach efforts and explanation of interested parties that did not participate.	**1 Transparency**	Working group members listed on page 1 of each Part B.	Complete
☑	10	PO **shall** address potential conflicts of interest developing the PCR and fully disclose funding sources for the management to interested parties. If significant external funding was made by one or more parties to support the development, the PO **should** put in place procedures to ensure that no conflict of interest occurrs in the PCR process. 'Significant funding' is defined as more than $10,000 or its in-kind equivalent, or 20% or more of the anticipated funding needs.	**US EPA Environmentally Preferable Purchasing Program Framework for the Assessment of Environmental Performance Standards and Ecolabels for Federal Purchasing. https://www.epa.gov/system/files/documents/2022-02/updated-framework_020222.pdf**	**PCR supporing documentation:** - The policy or procedure in use when the PCR was developed covering conflicts of interest, separation of organizational functions necessary to address any potential conflict of interest. - Attestation that this policy or procedure was followed during the development. The evidence must also include one of the following: - Documentation that original sources of funding were disclosed to interested parties, such as a disclosure statement, or in meeting minutes for relevant working groups.	**1 Transparency**	Conflict statement included in the Part B development information table of each Part B.	Complete
Content of PCR						**How criteria were met**	**Due**
☑	11	The PCR **shall** report on the following items: • Name and registration number of the PCR • General information about the program: name of the program, contact information, logo, and website if applicable • PCR Committee members and affiliations • Publication date • Expiration date and renewal schedule • Types of product claims covered by the PCR, with references to standards • Product category • Geographical representativeness of the PCR • Original language and translations (if existing) • How to make comments to the PCR	**14027 Clause 6.5**	**PCR:** • Draft PCR that includes all items reported	**1 Transparency**	Part A section 1.1 addresses the use of SM PCRs to create ISO 14025 Type III environmental declarations, and also language availabillity. http://www.sustainableminds.com/files/transparency/SM_Part_A_LCA_calculation_rules_and_report_requirements_2023.pdf All other items are addressed in each Part B.	Complete
☑	12	The PCR **shall** report the following information about the review process and background of the PCR: • Review panel member information • Open consultation period and participants • Other existing PCRs for the product category and reasons for developing a new one • Reference to underlying LCAs • Confirmation statement that the PCR was created in conformance with this ACLCA PCR Guidance (including version number)	**14025 Clause 5.5, 8.2** **14027 Clause 5.2, 6.4.4** **14025 Clause 6.7.1, 6.7.2** **14027 Clause 6.1, 6.4.3, 6.5.3, 7.1d**	**PCR:** • Draft PCR that includes all items except 'open consultation period' **PCR supporting documentation:** • Open consultation period and participants	**1 Transparency**	All items except open consultation participants addressed in Part B. Aggregated public comments spreadsheet, including commenter names and committee responses, to be created and made available to the review panel.	Complete
PCR review process						**How criteria were met**	**Due**
☑	13	PO **shall** set up an independent third-party review panel composed of a minimum of three members (a chair and two members). The combined competencies of the panel **shall** include, at a minimum, expertise in LCA and in the relevant product sector. *Note: Refer to the PCR Review Panel Checklist for review panel expectations.*	**14027 Clause 7.1, 7.2, 7.3,** **14025 Clause 8.2.3**	**PCR:** • List of review panel members	**1 Transparency**	Working group members listed on page 1 of each Part B.	Complete
☑	14	PO **shall** also set up an open consultation review.	**14027 Clause 6.4.4, 7.3**	**PCR supporting documentation:** • Date(s) open consultation period(s) announced, where/how; aggregated comments spreadsheet	**1 Transparency**	Aggregated public comments spreadsheet to be created and saved with the PCR supporting documentation.	Complete
☑	15	PO **shall** ensure the PCR Review Panel provides comments within a 90-day period.	**This guidance**	**PCR supporting documentation:** • Date(s) PCR review period	**1 Transparency**	Due date less than 90 days provided to PCR reviewer (Aug 30 - Sep 15).	Complete
Publication, new and updated PCRs						**How criteria were met**	**Due**

	☑	16	PO **shall** be responsible for publishing and maintaining the PCR. The published PCR shall be publicly available on the PO's website, free for any other PO to use. PO **shall** write out the publication date (e.g., June 25, 2022) and expiration date (e.g., June 24, 2027). PCRs **shall** have a validity period of no more than five years from the publication date. PCRs are invalid beyond the expiration date. PO **shall** provide the schedule for renewal, if applicable. PO **should** include a statement adjacent to the PCR Review Panel attribution to indicate conformance with this guidance (including version number) and the EPD use case level. PO **should not** act as a barrier to translating the PCR and should act as a facilitator for the translation.	**14025 Clause 6.4, 6.7.1** **14027 Clause 8.1.1** **This guidance**	**PCR supporting documentation:** • URL of PO's published PCRs page • URL PCR will be available at when published **PCR:** • Validity period of PCR • Conformance statement and EPD use case level	**1 Transparency**	A link to the SM Part Bs page is included in each Part B. Completed Part Bs will be uploaded to that page when published. The URL of each Part B when published will be as follows: - **Commercial flushometer valves** http://www.sustainableminds.com/files/transparency/pgds/Part_B_Product_Group_Definition_Commercial_Flushometer_Valves_2023.pdf - **Commercial lavatory faucets** http://www.sustainableminds.com/files/transparency/pgds/Part_B_Product_Group_Definition_Commercial_Lavatory_Faucets_2023.pdf - **Commercial toilets** http://www.sustainableminds.com/files/transparency/pgds/Part_B_Product_Group_Definition_Commercial_Toilets_2023.pdf - **Commercial urinals** http://www.sustainableminds.com/files/transparency/pgds/Part_B_Product_Group_Definition_Commercial_Urinals_2023.pdf - **Electronic bidet seats** http://www.sustainableminds.com/files/transparency/pgds/Part_B_Product_Group_Definition_Electronic_Bidet_Seats_2023.pdf - **Residential toilets** http://www.sustainableminds.com/files/transparency/pgds/Part_B_Product_Group_Definition_Residential_Toilets_2023.pdf Each Part B contains validity period, conformance statement, and EPD use case level.	Complete
	☑	17	To manage the expectations of PCR users, the PO **shall** post update information on its website at least four months in advance of the expiration date. The update options include: extending the current PCR, updating the PCR, or letting the PCR expire with no update. If information is not provided within this timeframe, other POs may proceed with the update and post PCR update information on their website.	**This guidance**	• URL of PO's PCRs undergoing updates	**1 Transparency**	Part B page includes update details: http://www.sustainableminds.com/transparency-report-program/part-b Public notice on the Sustainable Minds website announcing the new bidet seat Part B on March 21, 2023: http://www.sustainableminds.com/transparency-report-program/part-b Public notice on the Sustainable Minds website announcing the renewal of existing Part Bs on February 23, 2023: http://www.sustainableminds.com/transparency-report-program/part-b	Complete
	☑	18	To update a PCR during the validity period, the PO **shall**: 1. Notify the original PCR Committee members and original Review Panel. 2. Consult ISO 14027 to confirm the reason to update is valid. 3. Create or update the ACLCA PCR Guidance Checklists for the PCR. 4. Open consultation to interested parties. 5. Update the PCR. 6. Obtain sign-off by PCR Review Panel. 7. Republish an updated version and include a change log at the start of the document. 8. Announce the updated version. 9. Update the ACLCA PCR Repository. In the case that an existing PCR does not meet the requirements for creating EPDs for public or private procurement purposes, the PO **shall** make an effort to first engage the commissioner of the PCR to reconvene the PCR Committee in order to make the required updates. If the PCR commissioner does not reconvene the PCR Committee within 30 days of the PO's request, then the PO may proceed to develop a new PCR using the existing PCR as an informative input document.	**14027 Clause 9**	**PCR:** • Valid update reason **PCR supporting documentation:** • Checklists	**1 Transparency**	The Part B development information table in each Part B lists an Update justification where relevant. For these plumbing Part Bs, updates were not made during the validity period. The process for updating a PCR during the validity period is included in section 9.0 of the governance document. http://www.sustainableminds.com/files/transparency/SM_Governance_and_program_rules.pdf	Complete
	☑	19	For substantial PCR updates (e.g., updates that impact the results of an EPD), the PO **shall** contact manufacturers in their program with valid EPDs and other POs to bring attention to the PCR changes and encourage that they update accordingly.	**14027 Clause 9**	**PCR supporting documentation:** • Description of notification and dates of outreach	**1 Transparency**	TOTO was identified as the only manufacturer with valid EPDs using the Part Bs being updated. TOTO and other POs were notified of updates via the committee outreach process.	Complete
	EPD template						**How criteria were met**	**Due**
	☑	20	PO **shall** create a standard EPD template to be used for all EPDs that can be customized per PCR to identify requirements unique to each. Consider both digital and print (PDF) publishing. *Note: Refer to the 'EPD Comparability and Digital EPDs / Open EPD addendum.* PO **shall** include a statement adjacent to the PCR name to indicate conformance with this guidance and the EPD use case level.	**This guidance**	**PCR:** • EPD template document prepared for this PCR • Statement text included in EPD template	**1 Transparency**	A standard EPD template is included in Appendix C of Part A. Under the name of each Part B is a statement indicating conformance to this guidance and the EPD use case level.	Complete
	☑	21	PO **shall** ensure that the type of EPD developed is clearly noted on the EPD. *Note: Refer the 'EPD Types' addendum.*	**This guidance**	**PCR:** • Statement text included in EPD template	**1 Transparency**	Requirement listed in the Verification statement section in Appendix C of Part A (EPD template).	Complete

Goal and scope	☑	**22**	Product categories **shall** be primarily defined and sufficiently described by product functionality, technical performance, and use. The PCR **shall** clearly define the product groups for which the rules apply, both by using descriptive language and by using the relevant codes for any of the existing classification systems relevant to the product category and region. Products NOT covered by the PCR **shall** be clearly listed (as a clarification when products are similar). PO **should** ensure that the product classification systems are not to be the single determining factor for defining the product category. The PCR is encouraged to provide sufficient information to clearly describe the scope of products and services for which the rules apply.	**14027 Clause 8.1.1**	**PCR:** • Draft PCR which includes all the items	**2 Procurement**	N/A	N/A

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EPD use case goal: 1, 2 or 3

EPD use levels are cumulative. Transparency is the baseline. To create a 'Data source' conformant PCR, all criteria in all checklists must be documented.

2. PCR Committee checklist Version 1.0, May 25, 2022 | ACLCA PCR Open Standard 2022

3 Data source
2 Procurement
1 Transparency

Categories	#	Criteria	ISO reference	Supporting documentation	EPD use	How criteria were met	Due
Documentation	Ground rules					How criteria were met	Due
	☑ 1	PCR Committee **shall** use this checklist to guide the creation of a PCR, identify how criteria were met, and provide the completed checklist to the Program Operator to provide to the PCR Review Panel.	**This guidance**	**PCR supporting documentation:** • Completed checklist	1 Transparency	Completed checklists saved with the PCR supporting documentation.	Complete
	☑ 2	PCR Committee **shall** thoroughly document the use of an existing PCR as an informative document in any adaptation to create a new PCR. Include the PO name, existing PCR name, product category classification, link to the existing PCR, and provide justification for adapting the existing PCR.	**14027 Clause 6.4.3 and this guidance**	**PCR:** • Link to PCR Committee's documentation of adaptation	2 Procurement	N/A	N/A
	☑ 3	PCR Committee **shall** respond to each comment from the PCR Review Panel and public consultation. Responses should address any conflicting comments provided by the PCR Review Panel.	**This guidance**	**PCR supporting documentation:** • Link to PCR Committee's documented public response to comments and consultation on PO's website (aggregated comments spreadsheet).	1 Transparency	Aggregated public comments and review panel comments, including committee responses, created and published on the SM website with the PCR supporting documentation.	Complete
	☑ 4	PCR Committee **shall** provide a limited description of the involvement of interested parties for open consultation. Specifically, the PCR should provide: **• The name and/or affiliation of the stakeholders who participated in the open consultation.** **• The dates of the open consultation period.** Public consultation should be utilized during the PCR review process. The public consultation of the completed draft PCR should include at a minimum a 30-calendar-day time period for comments to be submitted.	**14025 Clause 5.5** **14027 Clause 5.2, 6.4.4**	**PCR:** • Draft PCR that includes list of participating interested parties and dates of consultation period.	1 Transparency	Open consultation period listed in 'Open consultation' section of the Part B development table. Aggregated public comments spreadsheet, including commenter names and committee responses, to be created and made available to the review panel.	Complete
Compliance	☑ 5	PCR Committee **shall** ensure that the underlying LCA meets the requirements of ISO 14044 and other pertinent standards and that, according to these standards, it has either been critically reviewed by a third party or has undergone an internal verification, either by the PCR Committee itself or appointed independent LCA expert.	**14025 Clause 6.7.1, 6.7.2, 8.1.3, 8.2.1, 8.2.2** **14027 Clause 5.1, 6.1, 6.5.3, 7.1d**	**PCR supporting documentation:** • Link to documentation of LCA review or internal verification.	2 Procurement	N/A	N/A
	☑ 6	PCR Committee **shall** ensure that the PCR is compliant with any referenced standards and relevant program instructions under which it is developed.		**PCR:** • List of referenced standards and link to relevant program instructions.	1 Transparency	Use of each Part B in conjunction with SM Part A is addressed in Program operator responsibilities section of each Part B. SM Part A section 1.1. lists the standards required for conformance. The last section of each Part B contains a link to where to find the SM program instructions (governance document).	Complete
	☑ 7	PCR Committee **shall** establish LCA requirements that are consistent with ISO 14044. The PCR Committee is encouraged to develop end-use case scenarios for the PCR-compliant EPDs and to incorporate considerations for these use cases into the underlying LCA.	**14025 Clause 6.7.1, 6.7.2** **14027 Clause 5.1, 6.1, 6.5.3, 7.1d**	**PCR supporting documentation:** • Third-party reviewed ISO 14040/44 conformant LCA of the product categories under consideration. The LCA will reflect cases in which the EPD may be interpreted in use.	1 Transparency	A link to the underlying LCA is included in the Program operator responsibilities section of each Part B.	Complete
Goal and scope	Ground rules					How criteria were met	Due
	☑ 8	PCR Committee **shall** ensure that all rules for LCA are specified and harmonized with upstream and downstream PCRs (if available) in conformance with relevant standards, including: specification of the functional unit, scope of the study, inventory collection, any allocation rules, impact assessment, and rules for additional information.	**14044** **14027 Clause 6.5.3**	**PCR:** • Draft PCR with list of specifications	3 Data source	N/A	N/A
	☑ 9	PCR Committee **shall** ensure that the product category used in the underlying LCA supporting the PCR is directly applicable to the PCR.	**14025 Clause 3.14, 6.6, 6.7.2** **14027 Clause 6.5.2, 6.5.3**	**PCR:** • Specification and justification of the product category and applicable functional unit.	2 Procurement	N/A	N/A
	☑ 10	PCR Committee **shall** define the study scope and EPD type for construction products and services.	**21930 Clause 5.2.1, 5.2.2**	**PCR:** • Draft PCR with specification of scope as cradle-to-gate or cradle-to-gate with options or cradle-to-grave.	1 Transparency	Each Part B specifies the scope as as cradle-to-grave.	Complete
	☑ 11	PCR Committee **shall** ensure that a clearly defined and measurable functional or declared unit is included in the PCR for construction products and services.	**21930 Clause 7.1.2, 7.1.3**	**PCR:** • Draft PCR with detailed description of the application and suitability of defining functional and declared units, respectively.	1 Transparency	Each Part B provides a description of the functional unit.	Complete

	☒	12	The PCR Committee **shall** determine which EPD types may be developed (ex: product-specific, industry-wide) and state the specific data requirements for each type. Any other terminology describing types of EPDs should be discouraged. *Note: Refer to the 'EPD Types' addendum for descriptions.*	**ISO 21930 Annex B and 'EPD Types' addendum**	**PCR:** • Draft PCR with description of the EPD types with specific data requirements	**1 Transparency**	Each Part B specifies EPD type under the name of the Part B. Specific data requirements are listed in the Additional rules to Part A section of each Part B.	Complete
	System boundary						**How criteria were met**	**Due**
	☒	13	PCR Committee **shall** determine the level of granularity of unit processes specified by the PCR to be included in the underlying LCA supporting the EPD and ensure that these are consistent with the study's goal of using well-identified and explained criteria.	**14044 4.2.3.3 14027 Clause 6.5.3 21930 Clause 7.1.9 for construction products & services**	**PCR:** • Draft PCR with list of all unit processes that include all service, material, and energy flows directly connected to the study project and its ability to perform its function.	**3 Data source**	N/A	N/A
	☒	14	PCR Committee **shall** ensure that the PCR requires: 1) at minimum, a cradle-to-gate[1] system boundary and that any deviation is explicitly specified and justified; and 2) the use of the recycled content (i.e., cut-off) approach for end-of-life allocation of environmental burdens between product systems. [1] "Gate" represents the finished and packaged product at the manufacturing facility just prior to shipping.	**14044 Clause 4.2.3.3.1 14025 6.7.2b, 6.7.2c, 6.7.2j, 7.2.5 14027 6.5.3b, 6.5.6**	**PCR:** • Draft specification of the system boundary and justification of any system boundary minimum requirement deviations (where applicable).	**2 Procurement**	N/A	N/A
	☒	15	PCR Committee **shall** ensure that the PCR specifies the capital goods and infrastructure to be included in cases whenever it is feasible. The PCR Committee is encouraged to specify lifetimes or standardized methods of computing lifetimes, as well as the depreciation method utilized to allocate the burden of capital goods over their service period, with any deviations from the default approach explicitly specified and justified.	**This guidance**	**PCR:** • Draft PCR that includes all items	**2 Procurement**	N/A	N/A
	☒	16	PCR Committee **shall** develop scenarios representing a set of domain-specific standard guidelines for any and each life cycle stage to be included beyond cradle-to-gate (i.e., A1-A3) in the PCR scope and require LCA results for these be reported. The PCR **shall** also prescribe assumptions for scenarios in cases where there is no discernable difference between one product and another in the same category for use and end-of-life stages. The PCR Committee **should** include criteria in the PCR for deviation from the prescribed scenarios.	**This guidance**	**PCR:** • Where applicable, list of scenarios and associated assumptions.	**2 Procurement**	N/A	N/A
	☒	17	PCR Committee **shall** specify whether the benefits and loads beyond the system boundary (i.e., Module D) are to be included in the EPD. If so, the PCR **shall** describe the specific scenario(s), benefits, and loads to be considered and reported separately in relevant EPDs communicating the full life cycle (cradle-to-grave) impacts of a product. *Note: Refer to the 'Circular Scenarios (Module D)' addendum.*	**This guidance and 'Circular Scenarios (Module D)' addendum**	**PCR:** • Where applicable, list of scenarios and concomitant benefits and loads to be included.	**2 Procurement**	N/A	N/A
Life cycle inventory	**Data collection**						**How criteria were met**	**Due**
	☒	18	PCR Committee **shall** prescribe acceptable primary data collection practices and clearly specify the scope and data quality for secondary data with recommendations for use of specific datasets or databases facilitating this process. Datasets used for calculations **shall** have been updated within the last 10 years for background data and within the last 5 years for producer-specific (foreground) data; deviations shall be justified. Where databases are required, alternatives or modifications shall be proposed for geographic areas or technologies beyond the scope of the specified dataset(s). Any deviation from the recommended background (secondary) datasets in the PCR shall be clearly specified and justified. In addition, the PCR **shall** require EPDs to disclose the reporting period for primary and secondary data. *Note: Refer to the 'Assessing Data Quality of Background Life Cycle Inventory Datasets' addendum.*	**ISO 21930 Clause 7.1.9 and 'Data Quality and Secondary Background Datasets' addendum**	**PCR:** • Draft PCR that includes all items	**2 Procurement**	N/A	N/A
	☒	19	PCR Committee **shall** identify and ensure that the PCR specifies the selected LCIA indicators or additional information requirements for which relevant inventory information shall be collected.	**14025 Clause 7.2.2, 7.2.3 14027 Clause 6.5.4, 6.5.5, 6.6**	**PCR:** • Draft PCR that includes all items	**1 Transparency**	SM Part A includes the list of selected LCIA indicators.	Complete
	☒	20	PCR Committee **shall** specify, based on the underlying LCA and/or additional studies informing the PCR, all the data that are to be collected (rather than specifying cut-off criteria for the inventory).	**14025 Clause 7.2.3, 7.2.4 14027 Clause 6.6**	**PCR:** • Draft PCR that includes all items	**2 Procurement**	N/A	N/A
	☒	21	PCR Committee **shall** specify the type of data to be collected. The committee is encouraged to follow standard data collection examples for foreground (primary) data collection.	**21930 Clause 7.1.9 14044 Annex A**	**PCR:** • Draft PCR with data collection sheet example specific to PCR	**2 Procurement**	N/A	N/A
	Data quality						**How criteria were met**	**Due**

☑	22	PCR Committee **shall** refer to relevant guidance to consider parameters for assessing data quality of both foreground (primary) and background (secondary) data. *Note: Refer to the 'Assessing Data Quality of Background Life Cycle Inventory Datasets' addendum which provides a data quality assessment method.*	**21930 Clause 7.1.9** **14044 Clause 4.2.3.6** **14025 Clause 6.7.2** **14027 Clause 6.2**	**PCR supporting documentation:** • Complete data quality assessment for both foreground (primary) and background (secondary) data. This information shall also be included in the underlying LCA, and reviewed.	**1 Transparency**	A data quality assessment of primary and secondary data is included in each underlying LCA and was reviewed by the PCR committee.	Complete
Background/secondary data						**How criteria were met**	**Due**
☑	23	PCR Committee shall ensure that the PCR specifies background (secondary) data quality requirements such that differences between claim results are rooted in actual technical differences, rather than artifacts of background data or the platform. If a secondary data source does not meet the required quality specified by the PCR, it shall be verified by the program operator that better data is not available. *Note: Refer to the 'Assessing Data Quality of Background Life Cycle Inventory Datasets' addendum which provides a data quality assessment method.* For example, as detailed in this addendum, the most recent version of background data for baseline electricity from Federal LCA Commons met the data quality requirements and is recommended to be specified across PCRs (with the LCI and method compatible with the Federal Elementary Flow List (FEDEFL) from https://www.lcacommons.gov/.	**Assessing Data Quality of Background Life Cycle Inventory Datasets' addendum**	**PCR:** • Draft PCR with list of background (secondary) data sources and default LCIA method(s)	**2 Procurement**	N/A	N/A
Foreground/primary data						**How criteria were met**	**Due**
☑	24	PCR Committee **shall** ensure that the PCR specifies primary data be collected for every process in the product system under the control of the organization making the product claim. The PCR Committee is encouraged to specify that data specific to the investigated product scope and supply chain are preferable to generic data, particularly in unit processes considered to have a significant contribution to the product life cycle. For EPDs seeking transparency-level conformance with this guidance, the PCR **shall** require the following: EPDs that use secondary data for any unit process that contributes 30% or more to any disclosed environmental impact category shall disclose the data source (database name and version, dataset name, dataset geography, and dataset allocation method).	**This guidance**	**PCR supporting documentation:** • Foreground (primary) data collected in conducting the underlying LCA, and the sensitivity of LCIA outcomes to variability in the foreground data. A facility-specific data collection protocol shall also be included.	**1 Transparency**	SM Part A section 7.6 states that primary data shall be collected for every process in the product system under the control of the organization(s) developing the LCA. Each Part B contains a statement in the Additional rules to Part A section which states: EPDs that use secondary data for any unit process that contributes X% or more to any disclosed environmental impact category shall disclose the data source (database name and version, dataset name, dataset geography, and dataset allocation method) Each underlying LCA lists primary data collected and includes an analysis on sensitivity or variability.	Complete
☑	25	For EPDs seeking procurement-level conformance with this guidance, the PCR **shall** require that EPDs use facility-specific data for upstream unit processes that cumulatively contribute 50% or more to the disclosed global warming potential. In situations where facility-specific data is not available for the upstream unit processes, and such a facility is required to report to the EPA Greenhouse Gas Reporting Program (GHGRP), the PCR **shall** require the EPD to disclose in the Additional Environmental Information section: the carbon intensity of the manufacturing plant (carbon emitted per metric ton of product manufactured) from which these products, and/or the quartile in which in which the manufacturing plant resides where benchmarks have been published [https://www.epa.gov/ghgreporting/ghgrp-minerals]. Carbon intensity shall be calculated by dividing the emissions reported to the EPA GHGRP by plant production. Emission and production data must be from the same reporting period using the most recent year of data. When a published ENERGY STAR Energy Performance Indicator is available for a product or constituent upstream product, the PCR **shall** require the EPD to disclose in the Additional Environmental Information section: the ENERGY STAR Energy Performance Score for the manufacturing plant in which the product or constituent upstream product was manufactured, and the reporting period of the underlying data. See https://www.energystar.gov/industrial_plants/energy_star_plant_certification/buy_clean_procurement_and_energy_star_0 for more information.	**This guidance**	**PCR:** • Draft PCR that includes all items	**2 Procurement**	N/A	N/A

☑	26	PCR Committee **shall** ensure that the PCR specifies the means by which primary data should be collected and may provide templates to facilitate harmonized data collection, metadata recording, and results reporting. If the specified data collection means are unachievable for a specific EPD developer, the PCR **shall** designate that the developer records the data collection method(s) utilized in the data description.	**14025 Clause 6.7.2**	**PCR:** • Specification of data collection methods (e.g., measured, calculated, estimated)	**1 Transparency**	SM Part A section 7.6 states: The method of data collection shall be specified (e.g., measured, calculated, estimated).	Complete
Data assumptions						**How criteria were met**	**Due**
☑	27	PCR Committee **shall** specify all parameters of assumed scenarios for use and end-of-life stages so as to ensure comparability and consistency of results. If a manufacturer wishes to define their own scenario(s), they **shall** be based on primary data.	**This guidance and the 'Circular Scenarios (Module D)' and the 'Allocating Materials Shared Across Product Systems' addendu**	**PCR:** • List of parameters for use and end-of-life stage scenarios	**2 Procurement**	N/A	N/A
☑	28	PCR Committee **shall** ensure that the PCR provides worst-case (i.e., 'conservative') default values for scenario data of the specified processes where no data are available for the EPD developer.	**This guidance**	**PCR:** • List of worst-case (i.e., 'conservative') default scenario values	**2 Procurement**	N/A	N/A
Data compliance						**How criteria were met**	**Due**
☑	29	PCR Committee **shall** ensure that claims made in the PCR are based on the results of an LCIA, LCI, and/or substantiated and verifiable additional information modules relevant to the product category.	**14027 Clause 6.6**	**PCR:** • An underlying LCA with supporting LCIA and LCI for all PCR guidelines	**1 Transparency**	Each underlying LCA contains relevant supporting LCA results.	Complete
☑	30	PCR Committee **shall** ensure that the PCR states data quality requirements for all data applicable for use in claims. These data **shall** be verified to be compliant with the established PCR data quality requirements and those for foreground (primary) and background (secondary) data. The PCR **shall** specify that a data quality assessment be performed on all collected foreground (primary) data and may provide templates to facilitate harmonized primary data collection, assessment, reporting, and verification. *Note: Refer to the 'Assessing Data Quality of Background Life Cycle Inventory Datasets' addendum.*	**This guidance**	**PCR:** • Data quality assessment criteria and/or template	**3 Data source**	N/A	N/A
☑	31	PCR Committee **shall** ensure that PCR-designated background (secondary) data sources be specified and verified such that: • Data for electricity, transportation, basic fuels, and heavy equipment operation are the most current versions from common public background data (e.g., for North America, LCI and method compatible with the Federal Elementary Flow List (FEDEFL) from https://www.lcacommons.gov/). • Temporal, geographical, and technological coverage of the secondary data is compatible with the scope of the PCR. • System boundaries are equivalent, and reference flows are adaptable to the product system specified in the PCR. • Sources of secondary data are cited. • Allocation procedures used for secondary data are appropriate for the system under study.	**This guidance and 'Assessing Data Quality of Background Life Cycle Inventory Datasets' and the 'Allocating Materials Shared Across Product Systems' addenda**	**PCR:** • Draft PCR with list of background (secondary) data sources and default LCIA method(s)	**2 Procurement**	N/A	N/A
Allocation						**How criteria were met**	**Due**
☑	32	PCR Committee **shall** ensure that the PCR specifies which processes are to be subdivided if allocation can be avoided in this manner wherever feasible. The PCR **shall** also provide guidelines on how the subdivision should be performed.	**14025 Clause 6.7.1c, 6.7.2c** **14027 Clause 6.5.3**	**PCR** • Draft PCR that lists processes and subdivision method	**2 Procurement**	N/A	N/A
☑	33	PCR Committee **shall** ensure the PCR specifies that where allocation by physical relationship is applied, the PCR **shall** specify the relevant underlying physical relationships to be considered and establish or refer to the relevant allocation rules.	**14025 Clause 6.7.1c, 6.7.2c** **14027 Clause 6.5.3**	**PCR** • Draft PCR that includes specification	**1 Transparency**	Allocation rules are listed in section 8 of SM Part A.	Complete
☑	34	PCR Committee **should** refer to relevant standards for defining allocation procedures for reuse and recycling, as well as waste handling, and for scenarios for treating waste generation during the product life cycle.	**14044 Clause 4.3.4** **21930 Clause 7.1.7.2.7**	**PCR** • Draft PCR that includes specification	**1 Transparency**	Allocation regarding output of waste per ISO standards is listed in section 8 of SM Part A.	Complete

	☑	35	PCR Committee **shall** refer to rules for and prioritize stepwise allocation for industrial processes that produce more than one product or deliver more than one service. For example, the refining of crude oil produces more than one different product, such as liquefied petroleum gas, gasoline, naphtha, diesel, asphalt, and others. PCR Committee **shall** refer to rules prohibiting system expansion as a method for avoiding allocation for construction products that may involve the production of co-products; rather, the PCR **shall** prescribe an ISO-compliant method of allocation, or an allocation procedure if multiple methods are allowed.	**14044 Clause 4.3.4.2** **21930 Clause 7.2.5**	**PCR** • Draft PCR including allocation method and procedure (where applicable)	**2 Procurement**	N/A	N/A
	End of life scenario						**How criteria were met**	**Due**
	☑	36	PCR Committee **shall** prescribe ISO-compliant rules for allocation between product systems (across the system boundary) and designate whether Module D may be optionally reported in the EPD for construction products and services. If so, the PCR **shall** prescribe detailed calculation rules for any quantitative metrics reported therein. *Note: Refer to the 'Allocating Burdens and Benefits of Materials Shared Across Product Systems'addendum.*	**21930 Clause 7.2.6**	**PCR:** • Draft PCR with allocation rules and calculation rules	**2 Procurement**	N/A	N/A
Life cycle impact assessment	☑	37	PCR Committee **shall** include all minimally required, core indicators for ISO-compliant EPDs; specifically bulleting the indicator with: 1) the LCA characterization methodology, and 2) reference in parenthesis. Additionally, the PCR is encouraged to specify at least one LCIA method that includes characterization factors for calculating category indicator results for each impact category and each geographical region covered by the PCR.	**21930 Clause 9.5**	**PCR:** • Draft PCR including all items	**1 Transparency**	Core indicators are listed in section 9 of SM Part A.	Complete
Interpretation	☑	38	PCR Committee **shall** identify the steps for interpreting the results of the underlying LCA study.	**14044 Clause 4.5** **21930 Clause 9**	**PCR:** • Draft PCR including all items	**1 Transparency**	SM Part A section 9.3 includes steps for interpreting the results of a background LCA.	Complete
	☑	39	PCR Committee **shall** ensure that the PCR communicates requirements (either qualitative or quantitative) and reference the methods and format used to report additional environmental information.	**21930 Clause 8.4** **14025 Clause 7.2.3, 7.2.4**	**PCR:** • Detailed specification on requirements and reference methods and format used to report additional environmental information.	**1 Transparency**	SM Part A section 10 includes a description of additional environmental information and the TR/EPD template in Appendix C showing placement of such information.	Complete
	☑	40	PCR Committee **shall** ensure that the PCR lists assumptions and limitations associated with the underlying LCA results.	**14044 Clause 4.5.2.1**	**PCR:** • Draft PCR including all items	**1 Transparency**	SM Part A section 5.2 includes a description of assumptions and limitations associated with TR/EPD results.	Complete
	☑	41	PCR Committee **shall** specify different types of uncertainties to be propagated in the underlying LCA study and is encouraged to ensure that the PCR describes procedures for reporting uncertainty of results.	**14044 Clause 4.4.4.2** **14025 6.7.1b**	**PCR:** • Draft PCR including all items	**1 Transparency**	SM Part A states that uncertainty shall be addressed in the data quality assessment and may be addressed qualitatively or quantitatively.	Complete

Part B for: commercial flushometer valves
March 8, 2024 | Sustainable Minds | Contact Kim Hammer (kim@sustainableminds.com)

EPD use case goal: **1, 2 or 3**

EPD use levels are cumulative. Transparency is the baseline. To create a 'Data source' conformant PCR, all criteria in all checklists must be documented.

3. PCR Review Panel checklist Version 1.0, May 25, 2022 | ACLCA PCR Open Standard 2022

Categories		#	Criteria	ISO reference	Supporting documentation	EPD use 3 Data source 2 Procurement 1 Transparency	How criteria were met	Due
Organizational	Ground rules							
	☑	1	The PCR Review Panel **shall** use this checklist to guide their process of reviewing the PCR.	**This guidance**	**PCR supporting documentation:** • Completed checklist	**1 Transparency**	Completed checklists saved with the PCR supporting documentation.	Complete
	☑	2	PCR Review Panel members **shall** disclose any conflicts of interest using the conflict of interest form.	**14027 Clause 7.2** **14071**	**PCR supporting documentation:** • Review panel completed conflict of interest forms	**1 Transparency**	Conflict of interest forms to be completed by review panel members.	Complete
	☑	3	The PCR Review Panel **shall** meet with the Program Operator to discuss the PCR and how to perform their review. The PCR Review Panel **shall** investigate whether the PCR has been developed in accordance with relevant LCA-based claim standards, general program instructions, specifications, and guidelines, and ensure that it supports the creation of credible and consistent claims. The PCR Review Panel **shall** verify that the EPD template is consistent with the PCR guidelines. The PCR Review Panel **shall** generate and compile their comments in a review report. By the agreed upon date determined by the Program Operator, the review report **shall** be sent to the PCR Committee for consideration.	**14027 Clause 7, 7.3, 7.5** **14071**	**PCR supporting documentation:** • Dated review report	**1 Transparency**	Aggregated review panel comments spreadsheet (i.e., detailed review report) sent to the PCR Committee on March 8, 2024	Complete
	☑	4	The PCR Review Panel **shall** confirm that the PCR meets relevant EPD-related federal and/or state procurement requirements (e.g., Buy Clean Legislation) that are specifically referenced in the PCR.	**This guidance and relevant EPD-related federal and/or state procurement requirements**	**PCR supporting documentation:** • Reviewers' sign-off and/or list of any deviations from procurement requirements	**2 Procurement**	N/A	N/A
	☑	5	The PCR Review Panel **shall** verify conformance the Program Operator and PCR Committee checklists and the appropriate category of EPD use is identified.	**This guidance**	**PCR supporting documentation:** • Reviewers' sign-off below and/or list of any deviations from this guidance. All three completed checklists returned to the PO.	**1 Transparency**	Section below completed by review panel chair, who confirmed sign-off from all review panel members.	Complete

Reviewer acceptance for EPD use case (1,2 or 3) Date | Reviewer names & email

Date	Revier name & email	Acceptance for EPD use case Level 1 (Y/N)
8-Mar-24	Hugues Imbeault-Tétreault, Chair - Groupe Ageco, hugues.i-tetreault@groupeageco.ca	Yes
8-Mar-24	Rebe Feraldi - TranSustainable Enterprises, LLC, lcacp@transustainable.com	Yes
8-Mar-24	Rifat Karim - Sphera, RKarim@sphera.com	Yes

Part B comments worksheet

SM Transparency Report™ Framework
Part B: Product group definition
Version 2023

Sustainable Minds, PCR Part B: Product group definition | Commercial flushometer valves, 2024. http://www.sustainableminds.com/files/transparency/pgds/Part_B_Product_Group_Definition_Commercial_Flushometer_Valves_2023.pdf.

Part B name:	Commercial flushometer valves
Reviewers:	Rebe Feraldi, Rifat Karim, Hugues Imbeault-Tétreault

Topic #	Page #	Section #	Type of comment (Technical/editorial/other)	Reviewer comment	Reviewer's proposed change/solution	Response	Rationale	Reviewer response to public comment	Response
all	all	all	Technical	It appears this is a PCR only for use phase; see comments for other plumbing PCRs for non-use phase module comments	Expand to include other modules	No change	PCR includes all modules from cradle to grave. Comments on other Part Bs considered across all Part Bs for consistency.		
1	2	Program operator responsibilities	Technical	Since there is already a PCR by ULE, are these two PCRs will be in conflict? Or the user can choose one based on the preference ? Is there any limitations? Also, harmonization and scope are discussed. So any more info on this topic?	Please provide guidance on this.	No change	Sustainable Minds announced the creation of this product group definition to other program operators, LCA analysts, and manufacturers via email, and posted an update on its website. One related PCR found was UL Environment's Part B for kitchen and bath fixture fittings and accessory products. Sustainable Minds reached out to the program operator to inquire whether the PCR could be modified to exclude commercial flushometer valves, since the Sustainable Minds PCR was published and being used to create LCAs for several years before the UL Environment PCR was published.		
2	2	Functional unit	Technical		It would be declared unit	No change	PCR includes all modules from cradle to grave		
3	3	2. Default life cycle stage scenario(s)	Technical	"In cases when the EPD owner purchases manufactured components, the manufacturing process activity at the upstream supplier shall be counted in the extraction and upstream production stage, separate and in addition to the upstream raw material extraction. For example, if a manufacturer purchases a copper heating coil that it fastens to a water heater, the coil cannot simply be represented by copper material alone. Additional manufacturing must be added to represent the manufacturing of raw copper into the coil part." So a generic copper coil dataset (which considers the coil making from the resource extraction but has generic data) is not acceptable?	May be we should specify this?	No change	The statement indicates that copper alone would not be an acceptable proxy. A copper coil data set would be acceptable.		
4	3	Transport to factory (A2)	Technical		Can we provide some guidance on A2 distance in the absence of it? Similar as in A4? However, for A4, it is not clear if the PCR is asking to calculate the empty returning distance, if so, please be clear. Is 497 miles the final number?	Accept	Added default distance of 2,000 km when supplier locations are unknown (added to all PCRs). Added clarifying language in A4 to make it clear what the total distance should be (all PCRs).		
5	3	ESL & RSL	Editorial	"…..Electrical and other hardware components, especially related to rubbers for water tight connections and moving parts, will require replacement beyond this timeframe." Beyond this timeframe or within this timeframe?	Please fix to whichever appropriate	No change	Beyond this timeframe' correctly reflects the short nature of the accepted lifespan.		
6	4	Replacement (B4)		"….Replacements must include the sum of impacts from stages A1-A5 and C1-C4 multiplied by the number of replacements."	I like the clear guidance on this.	No change	Thank you!		
7	5	Table 2	Technical		Define what is Mmgal	No change	The reference in Note 1 defines the unit the first time it is used.		
8	5	Table 2	Technical + Editorial	The positioning of the lst two (2) rows of the table is confusing because it mentions per gallon , then again per Liter.	Position them out of the table as text or break down and make two sections in the table	No change	Position reflects that as the user reads down the table, the calculation from million gallons to one gallon and then from one gallon to one liter is shown. If text was broken out, user may round incorrectly; keeping bold and within table for clarity.		
9			Technical		Provide guidance for C2 (Transport at EoL)	No change	SM Part A indicates: "For waste produced in the US, the EPA WARM model provides an average end-of-life transportation distance of 20 mi."		
10	6	Industry-average EPD requirements		Industry-average EPDs shall not be developed using this PCR.	Shouldn't this be mentioned also in the beginning of the PCR?	No change	Standard Part B template includes this section at the bottom; no need to repeat information.		

11	5	Waste processing (C3)	Technical and Part A conformance	Shouldn't we provide some guidance on the recovery / recyle since there are metals involved? Copper, stainless steel. Also incineration for plastics? Do we have something in the part A based on national statistics for commercial waste?	Provide more guidance for C3. Kind of it is not speaking the same thing as mentioned in Part A. On a second thought, if no statistics have been found for EOL of this product, may be this is ok.	No change	Kept assumption for 100% landfill. It is not realistic or typical that a commercial flush valve would be disassembled at the end of life. The vast majority are likely sent to landfill.		
1	2	Functional unit	Technical	The functional unit is not consistent with the geographical representativeness of the part B specified on page 1.The given rationale that products are available and used in the US market seems to be manufacturer-specific. A manufacturer could cover both US and Canadian market.	Change the representativeness of the functional unit or of the part B.	Accept	Updated to remove geographical reference within functional unit since geographic representative is detailed elsewhere.		
3	3	2. Default life cycle stage scenario(s)	Technical	- Using a different numbers of flushes over the RSL for single flush toilets, dual flush toilets and urinals renders the three product systems functionally different. Therefore, it would prevent comparability between the three types of combination. - the number of flushes for the flush-urinal combination is not the same as in the commercial urinal part B.	If comparability of EPDs developed with that part B is sought, I recommend to use the same number of flushes for all combination or specify a number of flushes in the functional unit. If comparability is not sought, for the flush-urinal combination, please use the number of flushes defined in the commercial urinal part B, or justify.	Accept	Updated urinal fixture RSL to 30 years with reference to PMI California market study. Updated B3 assumptions to replace flushing components every 10 years (aligned with commercial toilet PCR and flushometer valve RSL). Updated commercial toilet and urinal PCRs to exclude operational energy and water from B6 and B7 unless the flushing mechanism is sold with the fixture. To harmonize among the PCRs, the operational energy and water is now solely associated with the flushing system. These impacts will be counted in EPDs using the flushometer valve PCR or, in some cases, the EPDs of commercial toilets/urinals IF they have integrated flushing systems. In this way, customers can combine impacts from a flushometer EPD and toilet/urinal EPD to better estimate overall impacts without		
3	5	B7	Technical	Note 3: the 2008 survey report does not seem to be available anymore.	Use 2012 survey report.	Accept	Referred to more recent survey report.		
1			Technical	Do not agree with the names and/or scopes of these product groups	The commercial toilet PCR include toilets with or without flushometers, but there is another PCR for the flushometers. Suggest keeping the flushometers as a separate PCR and the commercial toilet PCR be only for the toilet without the flushometer.	No changes made.	As of November, the committee decided to separate flushometers from commercial toilets and the latest version of the commercial toilet PCR excludes flushometers. No change needed.	Okay	-
2			Technical	There are other relevant existing PCRs, EPDs, or SM Transparency Reports that should also be referenced and/or utilized	The flushometers and faucets are already covered under the UL PCR Part B for Kitchen and Bath Fixture Fittings, which doesn't expire for another year and a half. Do not agree with the exception noted for creating a duplicate PCR.	No changes made.	The committee has been informed that SM reached out to UL to address the overlap in scope. No response was received as of the writing of this response. We believe the intent for harmonization per the ACLCA Open Standard has been achieved.	Defnitely, the UL PCR should be referenced and **any discrepancies in the PCRs** plus justification for the SM PCR justified; I see the justification in the SM PCR revision but I think more than one attempt to reach UL should be made and implications to LCAs/EPDs and their results performed/compiled under the UL vs. SM PCR be described. Is there a justification in the UL PCR that can be quoted/referred to in the SM PCR? I know that it's unfortunate that the onus is falling on SM since their PCR was the temporal precedent. UL should also have some justification creating their 2020 overlapping PCR category.	The UL PCR is referenced in the Part Bs, and the justification for the new Part Bs is described. The previous versions of the applicable Part Bs as well as the UL fixture fittings Part B were both based on 2018 PMI guidance; some scenarios were updated according to updated references within the guidance, and others combined newly available data outside those referenced in the guidance. Sustainable Minds worked closely with Kyle Thompson from PMI and other major plumbing product manufacturers to put forth the most representative information possible. Where assumptions were updated, justifications and references were provided.
3			Technical	Do not agree with the proposed estimated service life (ESL) and reference service lives (RSLs), and the supporting rationale	RSLs for the urinals and toilets do not align with previous PCRs. Rationale should be given for the revised RSLs.	Agree that rationale should be provided.	For the PCRs with updated RSLs (commercial toilets and urinals), we have added a description of the change, an explanation for why it was changed, the implication to the LCA results, and references for the new data sources used.	Okay	-
4			Technical	The additional rules to Part A are not sufficient for enhancing the comparability of products within these product groups	I do not see additional comparability rules listed in any of the Part Bs.	No changes made.	These are listed in the section titled "Additional rules to Part A". In the future, Sustainable Minds will add links to the Part Bs in each of the survey pages for ease of review.	Okay; not ideal but okay	-

5			Technical	Do not agree with the proposed default life cycle stage scenarios for C1-C4 and the supporting rationale	C2 scenarios are missing in all of the Part Bs.	Agree that C2 should be included.	Added scenario information to use 100 km via diesel-powered truck/trailer.	Is this justification, rationale, reference for this scenario and value? Any installation/maintenance/decommissioning discussed?	This scenario was included in the previous version of the Part B, so no additional justification was required since it was not a change to previous assumptions. Intallation, maintenance, and decommissioning are addressed in the other scenarios.
6			Other	Previous versions of these PCRs from other Program Operators allowed for a global market, yet these PCR restrict to North American market.	Suggest allowing global market applications.	No changes made.	The committee has considered expanding the scope, but for now will keep the focus on North America. The committee may decide to add other geographical assumptions later if data are available.	Okay; not ideal but okay	-
7			Other	These PCRs are listed as Transparency level PCRs for the Open Standard level, which would preclude a user of the EPDs from using these for procurement. Any architect or builder wanting to use these EPDs to meet their procurement requirements would not be able to use them.		No changes made.	The committee considered increasing the use case level, but for now will maintain conformance with Level 1. If the market changes, the committee may reconsider.	Okay; not ideal but okay	-
8			Other	As a member of the PCR drafting committee, the weekly meetings were difficult to accommodate. Following the new Open Standard as written was also difficult.		No changes made.	Detailed meeting notes were distributed weekly with updated drafts of the Part B. A request for additional comments was included in the meeting notes and in the weekly emails. The weekly email also included a link to the folder with recordings of the meetings. SM is open to suggestions for improving these accommodations for any committee members who are unable to attend the live meetings.	Suggest bi-weekly or monthly meetings as weekly seems an unobtainable cadence for most professionals to participate--could potentially create barrier to holistic set of stakeholder representation.	SM will consider polling committee members for a preferred cadence to ensure that all stakeholders are able to participate.