

Revised Guidelines on the Environmental Effectiveness of the Standards (Section II)

EPA revised Section II of the Guidelines (“Environmental Effectiveness”), in response to public comments. [As noted in the Response to Comments](#), EPA does not intend to revise the other Guidelines at this time, pending the finalization of OMB’s revision of the Circular A-119 and learnings from the pilot.

It is important to note that language in this section has been changed to mandatory language (e.g., “The standard requires....”) throughout both Baseline and Leadership Guidelines. However, the applicability of Leadership Guidelines, and the precise methods of conformance, will vary by product category. To establish conformance with Section II of the Guidelines, a standard’s or ecolabel’s specific criteria will be evaluated as a group, rather than individually. Thus, it is not necessary for every criterion in a standard or ecolabel to satisfy every Guideline, so long as the standard or ecolabel as a whole satisfies all of the requisite Guidelines. For example, not all criteria need to demonstrate measurability and a significant measurable difference per Guideline II.2, as long as there are criteria that satisfy this Guideline for all of the product’s key environmental impacts. Similarly, a single criterion may be sufficient for a standard or ecolabel to satisfy Guideline II.10 (Ingredient Disclosure); in this case, the other criteria would not need to address this issue.

Also, functional performance issues are generally best addressed by the purchasing agency’s established processes for setting and evaluating technical requirements. If it is likely that a functional performance issue may not be adequately addressed through purchasing agency processes, functional performance should also be considered when utilizing standards and ecolabels so that the functional performance of conforming products are comparable to conventional products or standard industry test methods.

Revised DRAFT GUIDELINES FOR PRODUCT ENVIRONMENTAL PERFORMANCE STANDARDS & ECOLABELS

#	Guideline Name	Guideline	B/L*	Primary Reference**	Other References
1	Align with Relevant Standards	To avoid duplication or confusion in the marketplace, environmental performance standards shall align at both thematic and performance levels with relevant existing standards, including building upon federal, regional, national, and international standards where relevant to the scope and goals of the standard. Performance alignment refers to performance equivalent to <u>or better than</u> relevant existing standards.	B		ISO 14024; WTO TBT Annex 3
2	Measurability and Significant Measurable Difference	The product environmental performance criteria are measurable and convey improved environmental outcomes for the environmental impact(s) addressed. Criteria should ensure that environmental performance of certified products exceeds legal minimum requirements (where applicable), and exceeds the industry average for the environmental attribute(s) for which the product makes a claim. Quantitative measures are strongly preferred, but qualitative measures may be used where quantitative approaches are infeasible.	B	ISO 14024	FTC

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#	Guideline Name	Guideline	B/L*	Primary Reference**	Other References
3	Data Quality and Reliability	The criteria reflect a credible scientific reasoning process and reference and incorporate or are based on the best available science and supporting studies. The criteria should be scientifically and technically valid, based upon accurate, reliable, and unbiased information.	B	ISO 14024, ISO 14044, EPA Information Quality Guidelines	Data Quality Act, EPA Scientific Integrity Policy
4	Performance-Based	The criteria are performance-based when such criteria may reasonably be used in lieu of prescriptive criteria. Prescriptive criteria are used when there is science-based evidence to support that the action will achieve the desired outcome. Criteria must be sufficiently specific with respect to a desired performance outcome or prescriptive outcome. ¹	L	OMB A-119	
5	Hotspots	Where there are certain lifecycle stages or impacts that dominate the overall environmental and/or health impact of the product category, those significant impacts (or "hotspots") are clearly defined and given greater emphasis in differentiating environmental performance. If additional impacts are addressed, the standard clearly identifies any known trade-offs between impacts. ²	B		ISO 14024; FTC
6	Multiple Environmental Impacts	Standards developers considered the full range of environmental and human health impacts applicable to the relevant product or product sector. Exclusion of a significant impact is explained in the standard or other appropriate, publicly available documentation. The explanation includes scientific reasoning of the exclusions and addresses the measurability of the impact, and/or reasoning pertaining to the standard to the standard development organization's targeted focus on a particular environmental medium (or media). ³	L	ISO 14024	
7	Lifecycle Stages	Standards developers considered all product lifecycle stages. Exclusion of a lifecycle stage with clear impacts is explained in the standard or other appropriate, publicly available documentation. ⁴ This guideline is not applicable to process and production method (PPM) standards, or other standards that do not address the environmental performance of a finished product.	L	ISO 14024	
8	Weighting Methodologies	If a standard uses methodologies to weight and aggregate multiple attributes into a single score, the weightings are explicitly defined, and methodologies are well-documented in the standard and justified on a scientific basis where possible.	B		ISO 14024
9	Intrinsic Hazards	Product environmental criteria focus on the intrinsic hazards of chemicals across the full lifecycle of the product, and require safer substitutes where possible, considering existing data and availability of functional alternatives (including non-chemical, alternative design-based approaches, as applicable). ⁵	L	Principles of Green Chemistry	

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#	Guideline Name	Guideline	B/L*	Primary Reference**	Other References
10	Ingredient Disclosure	The standard requires manufacturers to disclose ingredients in products (to other businesses in the supply chain and/or consumers). ⁶ The method of disclosure may vary depending on product category. This guideline is not applicable to process and production method (PPM) standards, or other standards that do not address the environmental performance of a finished product.	L	Principles of Green Chemistry	
11	Impact Assessment Disclosure	The standard requires manufacturers to disclose the results of lifecycle assessments and other product or process environmental or human health assessments that have been conducted. All relevant environmental and human health impact categories are included in this disclosure. Established and well-recognized methodologies are encouraged, such as ISO guidelines for conducting LCAs. ⁷	L		ISO 14024

*B = Baseline; L = Leadership.

**Where a primary reference is not noted, EPA developed the guideline based on EPA stakeholder listening sessions and/or EPA program experience/expertise.

Notes:

1. OMB A-119 defines "performance standard" as a standard that states requirements in terms of required results with criteria for verifying compliance, but without stating the methods for achieving required results. A performance standard differs from a prescriptive standard, which typically specifies design requirements, for example materials to be used, how a requirement is to be achieved, or how an item is to be fabricated or constructed. Unacceptably vague criteria would include those stating that an entity should "be involved in" or "promote" an activity, approach, or philosophy without specifying resulting performance or prescriptive outcomes.
2. Depending on the product and application, it may be appropriate to develop standards that address those significant impacts, and do not include other, less relevant, impacts or lifecycle stages. See definition of lifecycle stages in footnote 4. However, if reliable evidence is available to meaningfully differentiate the performance of that product based on additional environmental impacts of concern or lifecycle stages (e.g., packaging, energy use in manufacturing, etc.), standards for green products should consider addressing those impacts, as well. Hotspots can be identified via conducting a lifecycle assessment, or by consulting existing, credible literature and analyses of significant impacts available at the product category level. Claims about products meeting environmental standards should be consistent with the standard's scope and avoid broad claims of environmental performance if other factors were not considered when the standard was developed (e.g. WaterSense is clearly about water, ENERGY STAR about energy, etc.).
3. When a standard does not address a significant or major environmental impact (aka "hotspot"), standards developers are encouraged to explain its exclusion. The intent is to ensure clarity about the relevance of environmental impacts that may be included (or excluded) from the standard. Environmental impacts include, but are not limited to, human and environmental toxicity, acidification, smog, climate change, stratospheric ozone depletion, natural resource depletion, and water quality. For simplification, environmental impacts also include environmental aspects such as energy use, water use, material use and waste generation.
4. Lifecycle stages of a product include sourcing and processing of raw materials to manufacturing, packaging, transportation, distribution, retailing, use of the product, and end-of-life management (through reuse, repair, upgrading, recycling, or safe disposal). The Federal government recognizes that lifecycle

assessment is a complex and evolving field and performing full lifecycle assessments (LCA) is challenging at this time due to cost, access to data, and uncertainties associated with the methodologies and tools. Also, the Federal government recognizes that there are environmental issues for which LCA cannot adequately address impacts such as biodiversity loss, land use changes, impacts to ecosystem services, and biogenic carbon impacts. Therefore, this guideline intends to encourage standards developers to use lifecycle thinking as they develop criteria for products.

5. An intrinsic hazard is the potential for harm based on the chemical structure and properties that define its ability to interact with biological molecules. A hazard-based approach, grounded in Green Chemistry principles, can reduce the use of hazardous substances, and lower overall risk to people and the environment. Key to this approach is an understanding of the potential hazards of chemicals in products and availability of safer alternatives. Generally speaking, "hazardous chemicals" are those which have a human or environmental toxicity profile such that exposure to people or flora/fauna in the environment could lead to adverse health impacts. Consistent with Green Chemistry principles and established methods for risk assessment and management, standards and ecolabel programs can help lower overall risk to people and flora/fauna present in the environment. Key to this approach is to understand how the reduction of human and ecological health hazards can contribute to overall risk reduction. Steps can then be taken to decrease the hazards of product ingredients through: ingredient substitution; alternative design approaches; and/or reducing relevant exposures to people using products or flora/fauna present in the environment. Standards and ecolabel programs should also assess the potential trade-offs associated with alternatives/substitutes elsewhere in a product's lifecycle and impacts on the functional ("fitness for use") performance of the product.
6. The intent of this guideline is to encourage greater disclosure, while recognizing a number of challenges in doing so for manufacturers, including supply chain complexity and intellectual property confidentiality. This guideline is not relevant to products that do not include chemicals with known intrinsic hazards.
7. Sound human health and environmental decisions regarding the manufacture, purchase, use, and end-of-life management of products depend on reliable and accessible data on the human health and environmental impact of those products. The intent of this guideline is to encourage the appropriate and voluntary sharing of this information, when it is available, so that others may learn and benefit.