DRAFT GUIDELINES FOR PRODUCT ENVIRONMENTAL PERFORMANCE STANDARDS & ECOLABELS					
#	Guideline Name	Guideline	B/L	Source of Guideline	Other References
Section I: Guidelines for the Process for Developing Standards					
1	Open Participation	Reasonable efforts were made to ensure participation was open to all directly and materially affected persons. There was no undue financial barrier for participation.	B	ANSI Essential Requirements	ISO 14024; ISO 14020; ISO/ IEC Guide 59; IFAN [1]
2	Voting Open	Voting membership on decision-making body was not conditional upon membership in any organization.	L	ANSI Essential Requirements	IFAN; WTO TBT Annex 3 & Decision G/TBT/9
3	Reasonable Voting Qualifications	Voting membership on decision-making body was not unreasonably restricted on basis of technical qualifications or other such requirements.	B	ANSI Essential Requirements	IFAN; WTO TBT Annex 3 & Decision G/TBT/9
4	Progress/Updates are Communicated	Timely and adequate notice of standards activity was announced in suitable media as appropriate to demonstrate the opportunity for participation by all directly and materially affected persons.	B	ANSI Essential Requirements	ISO/IEC Guide 59; WTO TBT Annex 3
5	Transparent	The process was transparent through significant stages of the standard's development and operation.[2]	B	ISO 14024	ANSI Essential Requirements; ISO 14020; ISO/IEC Guide 59; WTO TBT Annex 3 & Decision G/TBT/9
6	Consideration of All Viewpoints	The standards development process included fair and equitable consideration of all viewpoints.	B	ANSI Essential Requirements	IAF; IFAN; ISO 14020; ISO 14024
7	Diversity of Interests	Participation from diverse interest categories was actively sought with the objective of achieving balance so that no single interest category constitutes a majority of the membership of the decision-making body.[3]	B	ANSI Essential Requirements	IAF; IFAN
8	No Funding Conflicts	Funding sources for standards development did not create conflicts of interest.	B	ISO 14024	ISO/IEC Guide 59; IFAN
9	Consensus Effort	Reasonable efforts were made to achieve consensus throughout the process; prompt consideration was given to all views, and evidence of consensus[4] reached was documented.	B	ISO 14024	ANSI Essential Requirements; IFAN; WTO TBT Annex 3 & Decision G/TBT/9
10	Effort to Resolve Objections	An effort to resolve all objections was made in a fair and unbiased way. Commenters were informed of the resolution of their comments and advised of their right to appeal.	B	ANSI Essential Requirements	ISO 14020; ISO 14024; WTO TBT Annex 3 & Decision G/TBT/9
11	Appeals Mechanism	Written procedures contain an appeals mechanism for the prompt and impartial handling of procedural complaints regarding any action or inaction of the decision-making body.	B	ANSI Essential Requirements	ISO/IEC Guide 59; IFAN
12	Appeals Open	Appeals procedures provide for participation by all parties concerned without imposing an undue financial or administrative burden on them.	B	ANSI Essential Requirements	
13	Good-faith on Conflicts	A standards developing organization shall make a good-faith effort to resolve potential conflicts with the requirements of other existing standards and to coordinate standardization activities.[5]	B	ANSI Essential Requirements	ISO 14020; ISO 14024;; IFAN; WTO TBT Annex 3 & Decision G/TBT/9
14	Standards Updated	Standards are revised or reaffirmed every five years at minimum.	B	ANSI Essential Requirements	ISO 14020; ISO 14024; IFAN

DRAFT GUIDELINES FOR PRODUCT ENVIRONMENTAL PERFORMANCE STANDARDS & ECOLABELS					
#	Guideline Name	Guideline	B/L	Source of Guideline	Other References
Section II: Guidelines for the Environmental Effectiveness of the Standards [Revised per public comments December 2014 – see below]					
~~1~~	~~Functional Performance~~	~~Final product standards require that the product's functional performance is consistent with comparable conventional products or standard industry test methods.~~	~~B~~	~~FAR 23.103 Sustainable acquisitions: (c) The required products in the contract actions~~	~~ISO 14024~~
~~2~~	~~Align with Relevant Standards~~	~~To avoid duplication or confusion in the marketplace, standards for green products align with relevant existing standards, including building upon existing, federal, regional, national, and international standards where relevant to the scope and goals of the standard.~~	~~B~~		~~ISO 14024; WTO TBT Annex 3~~
~~3~~	~~Measurability~~	~~The product environmental performance criteria are measurable.~~	~~B~~	~~ISO 14024~~	
~~4~~	~~Credible Scientific Reasoning~~	~~The criteria reflect a credible scientific reasoning process and reference, incorporate or are based on the best available science.~~	~~B~~	~~ISO 14024~~	
~~5~~	~~Performance-Based~~	~~The criteria are performance-based when such criteria may reasonably be used in lieu of prescriptive criteria.~~	~~L~~	~~OMB A-119~~	
~~6~~	~~Lifecycle Stages~~	~~The standard's developer considered the full range of product life cycle stages. Exclusion of a significant lifecycle stage is explained in the standard or other appropriate, publicly available documentation.~~[6]	~~L~~	~~ISO 14024~~	
~~7~~	~~Multiple Environmental Attributes~~	~~Standards developers considered the full range of environmental attributes. Exclusion of a significant environmental attribute is explained in the standard or other appropriate, publicly available documentation.~~[7]	~~L~~		~~ISO 14024~~
~~8~~	~~Weighting Methodologies~~	~~If a standard uses methodologies to weight and aggregate multiple attributes into a single score, those methodologies are well-documented in the standard.~~	~~B~~		
~~9~~	~~Hotspots~~	~~Where there are certain lifecycle stages or attributes that dominate the opportunity for environmental improvement, those significant attributes (or "hotspots") are clearly defined and given greater emphasis in differentiating environmental performance. If additional attributes are addressed, the standard clearly identifies any known trade-offs between attributes.~~[8]	~~B~~		~~ISO 14024; FTC~~
~~10~~	~~Significant Measurable Difference~~	~~Product environmental criteria differentiate products from others in the product category, based on a significant measurable difference in environmental impact for the environmental attribute(s) for which the product makes a claim.~~	~~B~~	~~ISO 14024~~	~~FTC~~
~~11~~	~~Intrinsic Hazards~~	~~Product environmental criteria focus on the intrinsic hazards of chemicals, and require safer substitutes to the extent possible, considering existing data and availability of functional alternatives.~~[9]	~~L~~		
~~12~~	~~Ingredient Disclosure~~	~~The standard encourages manufacturers to disclose ingredients in products (to other businesses in the supply chain and/or consumers).~~[10]	~~L~~		
~~13~~	~~Impact Assessment Disclosure~~	~~The standard encourages manufacturers to disclose the results of life cycle assessments and other product environmental or human health assessments that have been conducted.~~[11]	~~L~~		
Section III: Guidelines for Conformity Assessment[12]					
1	Follow Relevant Standards	Conformity assessment bodies follow relevant International Standards, and other normative documents.	B	ISO/IEC Guide 65	ISO/IEC 17050-1 & -2
2	Independence	The decision-making process of bodies involved in conformity assessment (including those evaluating, inspecting and testing conformity to standards) are independent from those organizations to whom they are providing their services.	B	ISO/IEC Guide 65	ISO/IEC 17011, 17020 and 17021
3	Slide Fee Scale	Conformity assessment bodies offer a sliding scale of certification fees in order to be accessible to small businesses.	L		
4	Accreditation	Conformity assessment bodies are accredited as being in compliance with relevant International Standards, and other normative documents.	L	ISO/IEC Guide 65	ISO/IEC 17050-1& 2,17020,17021, 17025,ISO 17011

DRAFT GUIDELINES FOR PRODUCT ENVIRONMENTAL PERFORMANCE STANDARDS & ECOLABELS					
#	Guideline Name	Guideline	B/L	Source of Guideline	Other References
		OR apply the evaluation factors below, which are consistent with the requirements of internationally accepted standards for operations of a conformity assessment body.	–		
4.1	Objective & Impartial Structure	Conformity assessment bodies are structured in such a way that they are able to provide an objective and impartial evaluation of conformity. Decisions are based on the objective evidence of conformity (or nonconformity) obtained by the body.	B	ISO/IEC Guide 65	ISO/IEC 17021
4.2	Free from Undue Pressures	Conformity assessment bodies ensure that management and personnel are free from any undue commercial, financial and other pressures that could compromise the confidentiality, objectivity or impartiality of its process and decisions.	B	ISO/IEC Guide 65	ISO/IEC 17011,17025, ISO 14024
4.3	Documented Procedures	The conformity assessment process followed has documented procedures	B	ISO/IEC Guide 65	ISO/IEC 17021
4.4	Take All Necessary Steps to Evaluate Conformance	Conformity assessment bodies take all steps necessary to evaluate conformance with the relevant product standard requirements.	B	ISO/IEC Guide 65	
4.5	Role Separation	Each decision on conformity is taken by a person(s) different from those who carried out the evaluation of conformity.	L	ISO/IEC Guide 65	
4.6	Certification Conditions Specified	The conditions for granting, maintaining and extending certification and the conditions under which certification may be suspended or withdrawn, partially or in total are specified in the conformity assessment process.	B	ISO/IEC Guide 65	
4.7	Records Management	Conformity assessment bodies establish and maintain procedures to control all documents and data that relate to its functions. Records are identified, managed and disposed of in such a way as to protect the confidentiality of conformity assessment related information.	B	ISO/IEC Guide 65	ISO/IEC 17011, 17020, 17021, I17025
4.8	Dispute Resolution Procedures	Conformity assessment bodies have documented policies and procedures for the resolution of complaints, appeals and disputes.	B	ISO/IEC Guide 65	ISO/IEC 17011, 17021
4.9	Chain-of-Custody Procedures	The conformity assessment bodies have effective traceability or chain-of-custody procedures where this is necessary to ensure qualified products meet the standard	L		
4.10	Periodic Evaluation of Marked Products	Where a conformity assessment body authorizes the continuing use of its mark on products of a type which have been approved to carry the mark it periodically evaluates the marked products to confirm that they continue to conform to the standards.	L	ISO/IEC 17030	
4.11	Content of Declarations of Conformity	Declarations of conformity contain at least information on the identity of the issuer of the declaration, the object of the declaration, the standards or other specified requirements with which conformity is declared, and the person signing for and on behalf of the issuer of the declaration of conformity.	B	ISO/IEC 17050-1	
4.12	Suitable Action for Misuse	Incorrect, misleading, or unauthorized use of licenses, certificates, or conformity marks is dealt with by suitable action (from the mark owner).	B	ISO/IEC Guide 65, 17030	
4.13	Quality Objectives	Conformity assessment bodies define and document commitment to fulfilling quality objectives.	B	ISO/IEC Guide 65	
4.14	Sufficient Personnel	Conformity assessment bodies employ a sufficient number of personnel having the necessary education, training, technical knowledge and experience for performing conformity assessment functions.	B	ISO/IEC Guide 65	ISO/IEC 17011, 17020 17021, 17025
4.15	Adequate Facilities & Equipment	Conformity assessment bodies have available suitable and adequate facilities and equipment to permit all required activities to be carried out.	B	ISO/IEC Guide 65	
4.16	Transparent Process	Certification bodies provide public access to or disclosure of, appropriate and timely information about the certification processes; including its rules and procedures for granting, maintaining, extending, suspending and withdrawing certification.	B	ISO/IEC Guide 65	ISO/IEC 17021
4.17	Information on Fees	General information on the fees charged to applicants is provided.	B	ISO/IEC Guide 65	
4.18	Information on Financial Support	Public access to, or disclosure of, a description of the means by which the conformity assessment body obtains financial support is provided.	L		

DRAFT GUIDELINES FOR PRODUCT ENVIRONMENTAL PERFORMANCE STANDARDS & ECOLABELS					
#	Guideline Name	Guideline	B/L	Source of Guideline	Other References
4.19	Information on Scoring	Conformity assessment bodies make publicly available the scoring, credits and levels achieved by products which conform to the standard.	L		
Section IV: Guidelines for the Management of Ecolabeling Programs[13]					
1	Document Commitment to Quality	Programs define and document their policy, objectives for, and commitment to quality.	B	ISO/IEC Guide 65	
2	Evaluate Effectiveness	The program evaluates the effectiveness of the standard in reducing environmental impacts.	L		
3	Dispute Resolution Process	The program has a documented policy and procedure for the resolution of complaints, appeals and disputes.	B	ISO/IEC Guide 65	ISO 17011
4	Disclose Stakeholders	Stakeholders who are involved in the ongoing governance and/or operations of the program are disclosed.	L		
5	Balance of Interests	Formal rules and procedures provide for a balance of interests among stakeholders in program governance.	L		ISO/IEC Guide 65
6	Free from Undue Pressures	Programs ensure that management and personnel are free from any undue commercial, financial and other pressures that could compromise the confidentiality, objectivity or impartiality of their operations and decisions.	B	ISO/IEC Guide 65	NRDC
7	Limit Administrative Requirements	Administrative ecolabel program requirements are limited to those necessary to establish conformance and operate the program.	L	ISO 14020	
8	Information on Financial Support	Public access to, or disclosure of, a description of the means by which the conformity assessment body obtains financial support.	L	ISO 14024	ISO 14020
9	Information on Fees	General information on the fees charged to applicants is provided.	B	ISO/IEC Guide 65, ISO 14024	ISO 14020
10	Publicly Available Criteria	The ecolabel's criteria and/or standard are publicly available.[14]	B	ISO/IEC Guide 65	ISO 14024; ISO 14020; ISEAL Code; IAF
11	Grant the Use of the Mark	The ecolabel program grants the use of the label, mark or declaration when the applicant and its products meet the administrative and technical requirements for the program.	B	ISO 14024	
12	Suitable Action for Misuse	Incorrect, misleading, or unauthorized use of licenses, certificates, or conformity marks is dealt with by suitable action (from the mark owner).	B	ISO 14024	ISO/IEC 17030
13	Mutual Recognition	Mutual recognition among ecolabels and standards is encouraged, and may include the mutual recognition of tests, inspections, conformity assessment, and administrative procedures and, where appropriate, product environmental criteria.	L	ISO 14024	
14	Publicly Available Directory	The program provides a publicly available directory of labeled products and their suppliers.	B	ISO/IEC Guide 65	ISO/IEC 17021; ISO 10424
15	Current Directory	The directory of labeled products and their suppliers is kept current.	B	ISO/IEC Guide 65	ISO/IEC 17021
16	Searchable Directory	Information in the directory of labeled products and their suppliers is provided in searchable format.	L		ISO 14024
17	Regional Information	The program provides information on labeled products availability in regional markets.	L	ISO 14020	
18	Analyses of Market Uptake	The program conducts periodic analyses of the uptake of the ecolabel in the marketplace and discloses the results.	L		

Notes:

1. IAF International Accreditation Forum: http://www.iaf.nu; IFAN International Federation of Standards Users: http://www.ifan.org; ISO: http://www.iso.org**;** ISEAL: http://www.isealalliance.org/code
2. Transparency implies that information was available to interested parties for inspection and comment where appropriate; and includes selection of product categories; selection and development of product environmental criteria; and product function characteristics.
3. While this baseline represents an acceptable level of balance, additional steps have been taken by a number of standards development organizations to further ensure a balance of diverse interests (e.g., limiting number of votes per organization, confirming accuracy of affiliations, actively recruiting additional members from other stakeholder categories). Such proactive approaches could be recognized as leadership.
4. According to the Office of Management and Budget (OMB) Circular A-119, consensus "is defined as general agreement, but not necessarily unanimity, and includes a process for attempting to resolve objections by interested parties, as long as all comments have been fairly considered, each objector is advised of the disposition of his or her objection(s) and the reasons why, and the consensus body members are given an opportunity to change their votes after reviewing the comments." http://www.whitehouse.gov/omb/circulars_a119#4 Consensus is implemented by standards development organizations in many different ways. For example, some require 75 percent approval of an action while others might require 66 percent or 50 percent for the same action to be approved.
5. A conflict exists when the terms of a standard are inconsistent or incompatible with the terms of the other standard to the extent that implementation of one standard would preclude proper implementation of the other.
6. ~~Life cycle stages of a product include sourcing of raw materials, to manufacturing, packaging, transportation, distribution, retailing, use of the product, and management of the product when it is no longer needed (through reuse, repair, upgrading, recycling, or safe disposal). The Federal government recognizes that performing full lifecycle assessments (LCA) is challenging at this time due to cost, access to data, and uncertainties associated with the methodologies and tools. Therefore, this guideline intends to encourage standards developer to use life cycle thinking as they develop criteria for products.~~
7. ~~When a standard does not address a significant or major environmental attribute (aka "hotspot"), standards developers are encouraged to explain its exclusion. The intent is to ensure clarity about the relevance of environmental attributes that may be included (or excluded) from the standard. Environmental attributes include, but are not limited to, human and environmental toxicity, environmental fate, air pollution, climate change, stratospheric ozone depletion, natural resource depletion, and water quality.~~
8. ~~Depending on the product and application, it may be appropriate to develop standards that address those significant attributes, and do not include other, less relevant, attributes or life cycle stages. However, if reliable evidence is available to meaningfully differentiate the performance of that product based on additional environmental attributes of concern or lifecycle stages (e.g., packaging, energy use in manufacturing, etc.), standards for green products should consider addressing those attributes, as well. 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.).~~
9. ~~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 focus is an understanding of the potential hazards of chemicals in products and availability of safer alternatives.~~
10. ~~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.~~
11. ~~Sound human health and environmental decisions regarding the manufacture, purchase, use, and disposal 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.~~
12. If a standard does not have an associated second- or third-party conformity assessment program, or it is determined that a supplier's declaration is sufficient for a particular product standard, then this category of Guidelines would not be applicable.
13. The Management of Ecolabeling Programs Guidelines would not apply to product environmental standards that are not associated with an ecolabel.
14. Publicly available means generally available to all without restriction (other than a fee for purchasing the standard or similar such requirement).

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 or better than 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

Revised DRAFT GUIDELINES FOR PRODUCT ENVIRONMENTAL PERFORMANCE STANDARDS & ECOLABELS					
#	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	

Revised DRAFT GUIDELINES FOR PRODUCT ENVIRONMENTAL PERFORMANCE STANDARDS & ECOLABELS					
#	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.