



ELECTRONIC PRODUCT ENVIRONMENTAL ASSESSMENT TOOL

Description of Voluntary Environmental Performance Criteria for Computers, Laptops and Monitors and EPEAT Product Rating System as Designed by the EPEAT Development Team

PLEASE NOTE

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Version 1.2

June 2, 2005

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Background on the Electronic Product Environmental Assessment Tool (EPEAT)

EPEAT is an environmental procurement tool designed to help institutional purchasers in the public and private sectors evaluate, compare and select desktop computers, laptops and monitors based on their environmental attributes.

Purpose of EPEAT

The development of EPEAT was prompted by a growing demand by institutional purchasers for an easy-to-use evaluation tool that allows the comparison and selection of electronic products based on environmental performance. The electronics industry welcomed EPEAT as a tool to provide a clear and consistent set of performance criteria for the design of products, and provides an opportunity to secure market recognition for efforts to reduce the environmental impacts of its products.

EPEAT will offer many benefits for institutional purchasers, manufacturers, and the environment, including:

- Providing institutional purchasers with:
 - An easy way to specify and purchase computer products that meet challenging yet realistic environmental criteria simply by requiring that the equipment be EPEAT-qualified.
 - An efficient and credible means for verifying that equipment meets the criteria.
 - Flexibility to select equipment that meets the minimum performance criteria or to give preference to models with more environmental attributes by specifying a higher EPEAT qualification level.
 - Credibility for the procurement decisions since the environmental performance criteria were developed through a consensus process that balanced the concerns of purchasers, industry, environmental groups and other stakeholders.
 - Assurance that the same set of criteria is used by purchasers nationwide to ensure competitive product pricing, consistent availability and significant impact on the industry and the environment.

- Providing manufacturers with:
 - One clear set of performance criteria for the design of products and services.
 - Flexibility as to how they meet the higher levels of EPEAT qualification.
 - A market advantage for environmentally preferable products.
 - A low cost, user-friendly system that will not delay the process for getting a new product to market.
- Providing environmental stakeholders with:
 - A credible assessment of electronic products based on environmental criteria.
 - A system that promotes the continuous improvement of environmental performance across the entire lifecycle of electronic products.

Summary of How EPEAT Will Work

EPEAT will evaluate electronic products according to three tiers of environmental performance – Bronze, Silver and Gold. The complete set of performance criteria includes 22 mandatory criteria and 33 optional criteria. To qualify for acceptance as an EPEAT product, it must conform to all the mandatory criteria. Manufacturers may pick and choose among the optional criteria to boost their EPEAT baseline “score” to achieve a higher-ranking level as follows.

Bronze: Product meets all mandatory criteria

Silver: Product meets all mandatory criteria plus at least 16 optional criteria.

Gold: Product meets all mandatory criteria plus at least 25 optional criteria.

The three-tier system provides purchasers with the flexibility to select equipment that meets their minimum performance requirements or to give preference to models with more environmental attributes by specifying a higher EPEAT qualification level. For manufacturers, EPEAT provides flexibility to choose which optional criteria they would like to meet to achieve higher levels of EPEAT qualification.

Before listing their products on EPEAT, manufacturers will sign a formal Memorandum of Understanding (MOU) that commits them to provide accurate product and company information and provides for remedies should inaccuracies be discovered. The assessment tool will be structured to allow manufacturers to self-declare, via a web-based interface, that their specific products meet EPEAT requirements. For each criterion, producers must, on request of the EPEAT organization, provide a specified set of verification data in order to demonstrate EPEAT conformance.

Most criteria refer to environmental performance characteristics of the specific product, and the manufacturer declares to those product criteria for each product of their choice. Some criteria refer to general corporate programs, such as a Corporate Environmental Policy, and the manufacturer declares to those criteria in a report that is provided annually.

To ensure that the self-declaration system functions in a transparent and verifiable manner, the EPEAT organization will randomly select a subset of qualified products each year to verify their qualification. In addition, a user of EPEAT may request that a specific product be verified, and the EPEAT organization, or other authorized agent, will

select products to be verified if a credible source has identified a specific concern that appears to have merit. The EPEAT organization, or its agent, will contact the manufacturer who will be required to provide the verification data. In the event that a declared product fails to meet the criteria, the EPEAT organization will follow the process established in the MOU, which will initially focus on correcting the problem, but may ultimately include disqualifying the manufacturer from use of EPEAT.

How the Environmental Performance Criteria Were Developed

The draft environmental performance criteria and the procedures for validation represent the results of an 18 month-long multi-stakeholder process. The EPEAT Development Team was composed of stakeholders that represented manufacturers, trade associations, institutional purchasers, advocacy organizations, electronics recyclers, academics, and others¹. The process for developing the draft criteria included use of ANSI essential requirements², such as the need for openness, balance, consideration of all views, and consensus decision-making.

Each criterion was evaluated alongside the others to ensure that EPEAT is a balanced and comprehensive tool that covers multiple environmental attributes throughout the product's life cycle. The criteria are stringent enough to promote better environmental design, manufacture, and end-of-life management, while reflecting existing technologies and technical limitations so that a supply of EPEAT products will be available to purchasers. Specific criteria are drawn heavily from existing U.S. and international requirements and standards such as Energy Star®, the European Union's Restriction on Hazardous Substances Directive, and the IT-Eco Declaration, while creating some new elements that were agreed upon by the team. The EPEAT Development Team chose to build on existing legal and market requirements to reduce overlap and possibly conflicting requirements on product producers.

Using EPEAT in Product Procurement

The environmental performance criteria are designed to be used as a comprehensive whole. The Development Team strongly recommends that users of EPEAT do not selectively pick and choose among the performance criteria or amend or modify their potential product scope or application. Doing so would weaken the impact and results of the overall EPEAT process. Taken as a whole, the EPEAT system – the criteria, data and documentation requirements, manufacturer agreements, processes for after-market verification, and commitments to future updates and extensions – will provide purchasers with a simple and verifiable program for the selection of environmentally sustainable products. In addition, the criteria will provide a single, practical system for manufacturers to demonstrate the environmental performance of their products. The overall EPEAT result carefully balances stakeholder concerns and promotes overall environmental improvement. The EPEAT stakeholders request the EPEAT package be followed in its entirety.

¹ For the full Development Team see www.epeat.net.

² “ANSI Essential Requirements: Due process requirements for American National Standards”, American National Standards Institute, January 2003.

Understanding Performance Criteria Types

The performance criteria are divided into eight categories, which reflect different environmental attributes. The categories include the Reduction/Elimination of Environmentally Sensitive Materials, Materials Selection, Design for End-of-Life, Product Longevity / Life Cycle Extension, End-of-Life Management, Corporate Performance and Packaging. In addition, each of the individual criteria can also be classified based on whether it is mandatory or optional, and based on whether they relate specifically to the product or more generally to the manufacturer.

Mandatory and Optional Criteria: In the “Criteria Descriptions” section, these types are designated after the criterion number:

- *Mandatory criteria* are those that must be met in order for a product to be eligible for EPEAT.
- *Optional criteria* are those that can be used to achieve higher EPEAT levels, such as silver or gold.

Product and Annual Report Criteria: In the “Criteria Descriptions” section, this criterion type is shown leading the specific wording of the criterion.

- *Product criteria* are those that apply to each specific product that a manufacturer lists with EPEAT, and are declared to in the product application process.
- *Annual Report criteria* are those that apply to a program or an offering of the manufacturer in general, and are not exclusive for the specific product. They are declared to in the Annual Report.

Interim Guidance for Using EPEAT

EPEAT is still in the implementation phase and the EPEAT Implementation Team is working to identify a host organization and bring the EPEAT system to a “live” state as quickly as possible. The full system is expected to be available sometime in early 2006. Thus it is highly recommended that purchasers wait until the full EPEAT purchasing and verification tool and process are available since doing so will allow purchasers to have the best, comparable environmental information about potential products.

However, some purchasers may need to make purchasing decisions before the completed implementation phase. Hence, they may desire to use the performance criteria in bid specs, market surveys and similar documents during the interim period. It is extremely important to note that an agency using the criteria before the formal release of the complete EPEAT tool will be solely and completely responsible for verifying compliance to the criteria.

Below is some guidance from the EPEAT Implementation team to help ensure the criteria are used appropriately during the interim period.

- DO only apply the criteria to electronics products (monitors, desktops & notebooks) that are included the original EPEAT scope.
- DO only use the mandatory criteria (bronze level) and not criteria from the advance tiers (gold or platinum).

- DO understand that manufacturers may be making product and process changes to meet the performance criteria and that not all criteria can be met today, e.g., some of the RoHS criteria. This may result in a smaller available product pool from which to select.
- DO refer to the criteria as FINAL DRAFT CRITERIA and include the date and revision of criteria used.
- DO include in your bid specs an option for requiring the use of the EPEAT process and performance criteria when such products are available -- as per the following, example language.

"During the term of the contract, [Agency/Department] reserves the right to purchase exclusively or otherwise provide preference for specific models of desktop computers, notebooks and monitors qualified through the Electronic Products Environmental Assessment Tool (EPEAT) or its successor."
- Purchasers are advised not to augment the attributes or mandatory criteria by adding other environmental requirements or adjusting their values. The EPEAT Development Team reviewed many options and through a lengthy and detailed stakeholder review have identified what we feel are key environmental attributes. While we understand that some jurisdictions may wish to apply other criteria not included in EPEAT (e.g. social justice guidelines) to the purchase of electronics, we discourage the adoption of substitute environmental requirements.
- DO NOT refer to the product purchased during the interim period as in conformance with EPEAT. Also, do not refer to the purchased product as EPEAT certified, EPEAT approved, or EPEAT compliant during this time.

The Implementation Team believes following this guidance strikes an appropriate balance between making better purchasing decisions and not negatively affecting the implementation of the EPEAT system or weakening its eventual impact.

If you have questions, please consult the EPEAT web site (www.epeat.net) or the contacts listed within it.

Process for Finalizing the Performance Criteria

The Development Team has completed its work, and a smaller Implementation Team is now working to implement EPEAT. This work includes identifying an ANSI accredited standards development organization to manage a comment period and finalize the performance criteria, and selecting a host organization to house vendor self declarations and manage spot checking of these claims. *In order to be notified regarding the comment period, please send your contact information to: epeat_comments@epeat.net*

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Definitions of Terms

Annual Report Criterion: A criterion that applies to a program or offering of the manufacturer in general, is not exclusive for the specific product, and is declared to in the Annual Report.

Bio-based: Under Section 9002 of the Farm Security and Rural Investment Act of 2002, bio-based products are defined as a product “that is composed, in whole or in significant part, of biological products or renewable agricultural materials (including plant, animal, and marine materials) or forestry materials.” The Guidelines for Designating Bio-based Products for Federal Procurement (Federal Register Vol. 68, No 244, p. 70730, Dec. 19, 2003) cites the intent to speed the development of new markets for bio-based products, and specifically excludes bio-based products with mature markets such as wood products made from traditionally harvested forest materials.

Blue Angel: The German environmental labeling program which is run by the federal environmental agency, the German institute of Quality Assurance and a private organization. http://www.blauer-engel.de/englisch/navigation/body_blauer_engel.htm

Compatible: Definition for “compatible” relates to recycling of plastics with paints or coatings: ‘paints & coatings on plastic parts are proven to be compatible with recycling processes if they do not significantly impact the physical/mechanical properties of the recycled resin. “Significant” impact is defined as >25% reduction in notched IZOD impact at room temperature as measured using ASTM standard D256’ (Based on a criterion developed by the FEC Plastics Task Force.

ECMA: ECMA International in Europe establishes standards for the information technology and consumer electronics industries, including a self-declaration standard for the environment, TR70. <http://www.ecma-international.org/>

Energy Star®: A label awarded for energy efficiency operated by the U.S. EPA and DOE. <http://www.energystar.gov/>

IT-Eco Declaration: A self-declaration environmental standard for electronic products developed by the Nordic information technology organizations (NITO). <http://www.itecodeclaration.org/>

Homogeneous material: A material that cannot be mechanically disjointed into different materials. For further explanation of when a material is homogeneous, see the information provided by DTI on the RoHS guidance document - DSTI is the consultant the UK is using on RoHS. http://www.dti.gov.uk/sustainability/weee/RoHS_Regs_Draft_Guidance.pdf

Laptop/Notebook: Portable-style computer system

Product: A marketing model and chassis type versus a singular configuration of the product. Different configurations may include options for processor, memory, hard disk etc. A product, for EPEAT, is every configuration that could be offered in a specific marketing model and chassis. If there is a configuration within a marketing model and chassis type that would change the environmental performance substantially, especially if it no longer met a criterion, then the manufacturer could not claim EPEAT for that configuration, even if the same model in other configurations did meet EPEAT. EPEAT

currently applies to system units, laptop/notebooks, and monitors. A “complete” product includes, for example, the system unit and all its peripherals (a CPU, the keyboard, the mouse and power cord would be “one product”).

Product Criterion: A criterion that applies to each specific product that a manufacturer lists with EPEAT, and declared to in the product application process.

Monitor: A VDU used with a computer.

Reusable or recyclable: Materials or components can be removed or recovered from the whole electronic product and put back into productive use as a material or component, not including energy recovery, at a net positive economic value using standard recycling technologies, or demonstrated by a test at a commercial recycler. For further explanation of when a product or packaging can be claimed to be reusable or recyclable, see Section 260.7(d) of the Federal Trade Commission's Guide for Environmental Marketing Claims: <http://www.ftc.gov/bcp/grnrule/guides980427.htm>

Renewable Energy: Resources that constantly renew themselves or that are regarded as practically inexhaustible are considered renewable. These include, but are not limited to, solar, fuel cells, wind, geothermal, hydro and wood. Energy source must be environmentally preferable to the non-renewable source.

RoHS: The European Directive for the Restriction on use of certain Hazardous Substances in electronic products. http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_037/l_03720030213en00190023.pdf

SCCP: Short Chain Chlorinated Paraffins, CAS number 63449-39-8.

System Unit: Desktop-style computer system.

VDU: A Video Display Unit includes a cathode ray tube, cathode ray tube device, flat panel screen or similar display device.

Summary List of Environmental Performance Criteria

M = Mandatory Criterion; O = Optional Point Criterion
Annual Report Criteria are designated as such in parentheses.

1. Reduction/Elimination of Environmentally Sensitive Materials

1.1 Reduction of Use of Hazardous Substances

M 1.1.1 Compliance with provisions of European RoHS directive

1.2 Hexavalent Chromium

O 1.2.1 Elimination of intentional use of Hexavalent Chromium

1.3 Cadmium

O 1.3.1 Elimination of intentional use of Cadmium

1.4 Lead

O 1.4.1 Elimination of intentional use of Lead in certain applications

1.5 Mercury

M 1.5.1 Reporting on amount of Mercury used in light sources

O 1.5.2 Low threshold for amount of Mercury used in light sources

1.6 Flame Retardants and Plasticizers

M 1.6.1 Elimination of intentional use of SCCP flame retardants and plasticizers in certain applications

O 1.6.2 Elimination of intentional use of Deca-BDE

O 1.6.3 Larger plastic parts free of flame retardants

1.7 Batteries

O 1.7.1 Batteries free of Lead, Cadmium and Mercury

1.8 PVC and Chlorinated Plastics

O 1.8.1 Large plastic parts free of PVC

2. Materials Selection

2.1 Total Recycled Content

M 2.1.1 Declaration of post-consumer recycled content

O 2.1.2 Minimum content of post-consumer recycled material

O 2.1.3 Higher content of post-consumer recycled material

2.2 Renewable/Bio-Based Materials

M 2.2.1 Content declaration of renewable/bio-based materials

O 2.2.2 Minimum content of renewable/bio-based material

2.3 Dematerialization

M 2.3.1 Declaration of product weight

3. Design for End of Life

3.1 Design for Recovery through Recycling Systems that Utilize Shredding

- M** 3.1.1 Identification of materials with special handling needs
- M** 3.1.2 No incompatible paints or coatings
- M** 3.1.3 Easy disassembly of housings
- M** 3.1.4 Marking of plastics
- M** 3.1.5 Identification and removal of batteries and circuit boards
- O** 3.1.6 Reduced number of plastic resins
- O** 3.1.7 Molded/glued in metal eliminated or removable
- O** 3.1.8 Minimum 65 percent reusable/recyclable
- O** 3.1.9 Minimum 90 percent reusable/recyclable

3.2 Design for Recovery through Disassembly

- O** 3.2.1 Manual separation of plastics
- O** 3.2.2 Marking of plastics

4. Product Longevity / Life cycle Extension

4.1 Manufacturer Warranty/Service Agreement

- M** 4.1.1 Availability of additional warranty or service agreement

4.2 Upgradeability

- M** 4.2.1 Upgradeable with common tools
- O** 4.2.2 Modular design

4.3 Product Life Extension

- O** 4.3.1 Availability of replacement parts

5. Energy Conservation

5.1 Power Management System

- M** 5.1.1 Energy Star® 3.0
- O** 5.1.2 Lower power usage
- O** 5.1.3 Tier 2 Energy Star® 4.0
- O** 5.1.4 FEMP "Executive Order 13221"

5.2 Power Management

- M** 5.2.1 Documented power management features

5.3 Use of Renewable Energy

- O** 5.3.1 Renewable energy accessory available
- O** 5.3.2 Renewable energy accessory standard

5.4 Efficiency of Power Supplies

- O** 5.4.1 Efficiency threshold and disclosure of efficiency

6. End of Life Management

6.1 Product take-back

- M** 6.1.1 Provision of product take-back service (*Annual Report Criterion*)

6.2 Rechargeable Battery Recycling

- O** 6.2.1 Provision of a rechargeable battery recycling program (*Annual Report Criterion*)

7. Corporate Performance

7.1 Corporate Environmental Policy

- M** 7.1.1 Demonstration of corporate environmental policy consistent with ISO 14001 (*Annual Report Criterion*)

7.2 Environmental Management System

- M** 7.2.1 Self-certified environmental management system for manufacturing facilities (*Annual Report Criterion*)
- O** 7.2.2 Third-party certified environmental management system for manufacturing facilities (*Annual Report Criterion*)

7.3 Corporate Reporting

- M** 7.3.1 Corporate report consistent with Performance Track (*Annual Report Criterion*)
- O** 7.3.2 Corporate report based on Global Reporting Initiative (GRI) (*Annual Report Criterion*)

8. Packaging

8.1 Toxics in Packaging

- M** 8.1.1 Reduction/elimination of toxics in packaging

8.2 Recyclable packaging materials

- M** 8.2.1 Separable packing materials
- O** 8.2.2 Packaging 90% recyclable and plastics labeled

8.3 Recycled Content

- M** 8.3.1 Declaration of recycled content
- O** 8.3.2 Minimum post-consumer content guidelines

8.4 Take-Back Option

- O** 8.4.1 Provision of take-back program for packaging

8.5 Reuse Option

- O** 8.5.1 Documentation of reusable packaging

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Environmental Performance Criteria Descriptions

1. Reduction/Elimination of Environmentally Sensitive Materials

1.1 Reduction of Use of Hazardous Substances

1.1.1 Mandatory – Compliance with provisions of European RoHS directive upon its effective date

Product Criterion: All products are compliant with the final requirements developed under the RoHS directive.

Applies to: All covered products, but note that there are RoHS exemptions for specific applications.

Verification Requirements:

- 1) Declaration from manufacturer
- 2) Demonstration of RoHS compliance according to RoHS requirements if/when developed
- 3) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance

References and Details:

RoHS stipulates the following thresholds for the presence of each substance within homogeneous materials:

Cadmium	<100 ppm
Mercury	<1000 ppm
Lead	<1000 ppm
Hexavalent Chromium	<1000 ppm
Polybrominated Biphenyls (PBB)	<1000 ppm
Polybrominated Diphenyl Ethers (PBDE)	<1000 ppm

Both the list of materials and the thresholds are currently under development by the European Union.

1.2 Hexavalent Chromium

1.2.1 Optional – Elimination of intentional use of Hexavalent Chromium

Product Criterion: Traces of hexavalent chromium should not exceed 500 ppm in homogeneous materials

Applies to: All covered products

Verification Requirements:

- 1) Declaration from manufacturer
- 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance

1.3 Cadmium

1.3.1 Optional – Elimination of intentional use of Cadmium

Product Criterion: Products contain no intentionally added cadmium. Traces of cadmium should not exceed 50 ppm in homogeneous materials.

Applies to: All covered products

Verification Requirements:

- 1) Declaration from manufacturer
- 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance

1.4 Lead

1.4.1 Optional – Elimination of intentional use of Lead in certain applications

Product Criterion: The batteries, paint, lacquer, external cables, plastic materials and external adapters belonging to the *VDU* shall not contain lead. The threshold value is 50 ppm per weight per listed part.

Applies to: VDU – Video displays only. Does not apply to RoHS exempted VDUs.

Verification Requirements:

- 1) Declaration from manufacturer
 - 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance
-

1.5 Mercury

1.5.1 Mandatory – Reporting on amount of mercury used in light sources

Product Criterion: If mercury used for light sources, report on how many lamps used and mercury content per lamp in accordance with the following ranges: >0-5 mg; >5-10 mg; >10-50 mg; >50-100 mg; >100-1000 mg; >1,000 mg.

Applies to: All products that use mercury in light sources (i.e. flat panel monitors, laptop/notebook computers)

Verification Requirements:

- 1) Declaration from manufacturer
 - 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance
-

1.5.2 Optional – Low threshold for amount of mercury used in light sources

Product Criterion: Maximum average of 3 mg. mercury per light bulb.

Applies to: All products that use mercury in light sources (i.e. flat panel monitors, laptop/notebook computers)

Verification Requirements:

- 1) Declaration from manufacturer
 - 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance
-

1.6 Flame Retardants and Plasticizers

1.6.1 Mandatory – Elimination of intentional use of SCCP flame retardants and plasticizers in certain applications

Product Criterion: Paints, coatings, plastics, rubbers and seals are free from flame retardants and / or softeners containing Short Chain Chlorinated Paraffins

(SCCPs) with more than 0.1% by weight, 10-13 carbon atoms, minimum 48% chlorine by weight

Applies to: All covered products

Verification Requirements:

- 1) Declaration from manufacturer
 - 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance
-

1.6.2 Optional – Elimination of intentional use of Deca-BDE

Product Criterion: Monitor development of RoHS to see if Deca-BDE is covered in final version. If yes, the criterion is covered under the RoHS criterion. If not, EPEAT Host Organization should evaluate other action on Deca-BDE (e.g. Swedish ban, risk assessment in US, etc), to see if an Optional Point criterion is appropriate for reducing or eliminating use of Deca-BDE.

Applies to: All covered products

Verification Requirements:

- 1) Declaration from manufacturer
 - 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance
-

1.6.3 Optional – Large plastic parts free of flame retardants

Product Criterion: Plastic parts >25g are free from flame retardants (above 0.1%) that are classified under Directive 67/548/EEC

Applies to: All covered products

Verification Requirements:

- 1) Declaration from manufacturer
- 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance

References and Details: Plastic parts are classified under Directive 67/548/EEC as the following:

- R45 may cause cancer
- R46 may cause heritable genetic damage

- R50-51-52 very toxic to aquatic organisms
- R60 – may impair fertility
- R61 – may cause harm to unborn child

NOTE: Recognize that many flame retardants may not have these classifications because they have not been tested. To gain this Optional Point, OEMS and suppliers would have to request that the materials be tested if they aren't currently classified. As a result, this point may not be claimed for a while, but it provides incentives for chemical companies to run the necessary tests in order to satisfy demand by OEMs and suppliers. It also helps ensure that any alternatives to current flame retardants would have to meet minimum requirements for hazard evaluation.

1.7 Batteries

1.7.1 Optional – Batteries free of Lead, Cadmium and Mercury

Product Criterion: With the exemption of technically unavoidable impurities, batteries and accumulators (internal to the computer system) must not contain any lead, cadmium or mercury. Such impurities must not exceed the limiting values as specified in the EU Battery Directives (91/157/EEC and 98/101/EEC).

Applies to: All covered products

Verification Requirements:

- 1) Declaration from manufacturer
- 2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance

1.8 PVC and Chlorinated Plastics

1.8.1 Optional – Large plastic parts free of PVC

Product Criterion: Eliminate PVC in parts >25 g (Cables and interconnect parts are exempt). Examples of interconnect parts are plugs and sockets.

Applies to: All covered products

Verification Requirements:

- 1) Declaration from manufacturer

2) Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance

2. Materials Selection

2.1 Total Recycled Content

2.1.1 Mandatory – Declaration of post-consumer recycled content

Product Criterion: Manufacturer declares whether product contains post consumer recycled plastic, or does not. Option to declare actual post consumer resin greater than 1.0%.

Applies to: All products that contain plastics (not PWB).

Verification Requirements:

- 1) Declaration from manufacturer
- 2) Supplier letter
- 3) Documentation of calculation

References and Details: A yes/no declaration. Checking either "yes" OR "no" satisfies requirement. "Yes" declaration defined as a minimum of 1.0% post consumer recycled resin measured as percentage (by weight) of total resin in each product. The % of recycled content will be calculated by taking a weighted average of the % recycled content in all resins in the product

2.1.2 Optional – Minimum content of post-consumer recycled material

Product Criterion: Product contains on average a minimum of 10% post-consumer recycled resin, measured as a percentage of total resin (by weight) in the product.

Applies to: All products that contain plastics (not PWB).

Verification Requirements:

- 1) Declaration from manufacturer
 - 2) Supplier letter
 - 3) Documentation of calculation
-

2.1.3 Optional – Higher content of post-consumer recycled material

Product Criterion: Product contains on average a minimum of 25% post-consumer recycled resin, measured as a percentage of total resin (by weight) in the product.

Applies to: All products that contain plastics (not PWB).

Verification Requirements:

- 1) Declaration from manufacturer
 - 2) Supplier letter
 - 3) Documentation of calculation
-

2.2 Renewable/Bio-Based Materials

2.2.1 Mandatory – Content declaration of renewable/bio-based materials

Product Criterion: Manufacturer declares whether product contains renewable/bio-based materials, or does not.

Applies to: All molded plastic parts, excluding packaging.

Verification Requirements:

- 1) Declaration from manufacturer
- 2) Supplier letter
- 3) Documentation of calculation

References and Details: A yes/no declaration. Checking either “yes” OR “no” satisfies requirement. “Yes” declaration defined as a minimum of 1.0% bio-based/renewable resin measured as percentage (by weight) of total resin in each product. The % of bio-based/renewable resin will be calculated by taking a weighted average of the % bio-based/renewable resin in all resins in the product

Refer to Federal Register Vol. 68, No 244, p. 70730, Dec 19, 2003 for bio-based guidelines. The ASTM test method and certification requirements are provided here. (Can we list the ASTM test method? Are we requiring this method to be used for the calculation/verification the material is bio-based?)

2.2.2 Optional – Minimum content of renewable/bio-based material

Product Criterion: Product contains on average a minimum of 10% renewable/bio-based resin, measured as a percentage of total resin (by weight) in the product.

Applies to: All molded plastic parts, excluding packaging.

Verification Requirements:

1. Declaration from manufacturer
2. Supplier letter
3. Documentation of calculation

References and Details: Refer to Federal Register Vol. 68, No. 244, p. 70730, Dec 19, 2003 for bio-based guidelines. The ASTM test method and certification requirements are provided here. (Can we list the ASTM test method? Are we requiring this method to be used for the calculation/verification the material is bio-based?)

2.3 Dematerialization

2.3.1 Mandatory – Declaration of product weight

Criterion: Manufacturer declares product weight.

Applies to: Each individual product submitted.

Verification Requirements:

Declaration of product weight +/- 5%

Written weight provided by manufacturer.

3. Design for End of Life

3.1 Design for Recovery through Recycling Systems that Utilize Shredding

3.1.1 Mandatory – Identification of materials with special handling needs

Product Criterion: Manufacturer provides treatment information to reuse and recycling facilities that identifies the presence and location of materials that require special handling, especially non-standard or new substances or new technologies, and including components such as batteries.

Applies to: All products.

Verification Requirements:

Information provided electronically or web link to where information is available

References and Details: “Non-standard or new substances or new technologies” shall refer to substances or technologies that are rarely encountered in the end-of-life stream of products such that recycling and reuse enterprises would not

develop methods to deal with them. If a new substance or technology is introduced and in time becomes commonplace such that recycling and reuse enterprises develop methods of dealing with them, then they shall no longer meet this definition.

3.1.2 Mandatory – No incompatible paints or coatings

Product Criterion: No paints & coatings that are incompatible with recycling or reuse, including metal coatings, on plastic parts >100 g., unless plastic part contains >25% recycled resin.

Applies to: All products

Verification Requirements:

1. Declaration from manufacturer
 2. Common knowledge or documentation showing manufacturer test
-

3.1.3 Mandatory – Easy disassembly of housings

Product Criterion: Housings can be easily removed by one person alone with commonly available tools.

Applies to: All products

Verification Requirements:

1. Declaration from manufacturer
 2. Description of how the housing can be easily removed
 3. Documentation showing manufacturer test
-

3.1.4 Mandatory – Marking of plastics

Product Criterion: Plastic components >100g are material coded in accordance with ISO 11469:2000.

Applies to: All plastic components >100g in the product

Verification Requirements:

1. Declaration from manufacturer
 2. Visual inspection
-

3.1.5 Mandatory – Identification and removal of batteries and circuit boards

Product Criterion: Batteries and circuit boards >10 cm² (if they contain hazardous materials), and other hazardous components can be safely and easily identified and removed.

Applies to: Products with batteries and circuit boards > 10 cm²

Verification Requirements:

1. Declaration from manufacturer
2. Supplier letter
3. Description of locations and removal method
4. Internal test data by manufacturer showing that method works

References and Details: Hazardous materials as defined under WEEE.

3.1.6 Optional – Reduced number of plastic resins

Product Criterion: Only one resin type is used in each plastic enclosure part >100 g.

Applies to: Enclosures for all products

Verification Requirements:

1. Declaration from manufacturer
 2. Supplier letter
-

3.1.7 Optional – Molded/glued in metal eliminated or removable

Product Criterion: Plastic enclosures do not contain molded-in or glued-on metal unless metal inserts are easy to remove by one person alone with commonly available tools.

Applies to: All Products

Verification Requirements:

1. Declaration from manufacturer
 2. Description of locations and removal method
 3. Internal test data by manufacturer showing that method works
-

3.1.8 Optional – Minimum 65 percent reusable/recyclable

Product Criterion: 65% or greater of materials and components by weight are reusable or recyclable within the current infrastructure and using demonstrated technologies.

Applies to: All Products

Verification Requirements:

1. Declaration from manufacturer
2. Test data showing demonstrated recycling technologies
3. Demonstration that material is normally recyclable or, if not, that there exists a market/use

References and Details: Self declaration by manufacturer of the material & components and how they can be recycled or reused within the existing infrastructure & demonstrated technologies.

3.1.9 Optional – Minimum 90 percent reusable/recyclable

Product Criterion: >90% of materials and components by weight are reusable or recyclable within the current infrastructure and using demonstrated technologies.

Applies to: All Products

Verification Requirements:

1. Declaration from manufacturer
2. Test data showing demonstrated recycling technologies
3. Demonstration that material is normally recyclable or, if not, that there exists a market/use

References and Details: Self declaration by manufacturer of the material & components and how they can be recycled or reused within the existing infrastructure & demonstrated technologies.

3.2 Design for Recovery through Disassembly

3.2.1 Optional – Manual separation of plastics

Product Criterion: All plastic resins in parts >25 g used in product can be manually separated by one person alone with commonly available tools into either pure streams, or recyclable resin streams.

Applies to: All Products

Verification Requirements:

1. Declaration from manufacturer
 2. Description of removal method of applicable parts
 3. Internal test data by manufacturer showing method works and resin streams are pure or recyclable
-

3.2.2 Optional – Marking of plastics

Product Criterion: Plastic components >25g are material coded in accordance with ISO 11469:2000.

Applies to: All plastic components >25g

Verification Requirements:

1. Declaration from manufacturer
 2. Visual inspection
-
-

4. Product Longevity/Life Cycle Extension

4.1 Manufacturer Warranty/Service Agreement

4.1.1 Mandatory – Availability of additional 3-year warranty or service agreement

Product Criterion: Additional product warranty or service contract of at least three years is available for customer purchase.

Applies to: All Products

Verification Requirements:

1. Declaration from manufacturer
 2. Documentation of warranty or service contract
-
-

4.2 Upgradeability

4.2.1 Mandatory – Upgradeable with common tools

Product Criterion: Upgradeable with commonly available tools:

1. Hard disk, DVD, floppy can be changed or extended (e.g. by fire wire or USB)
2. Memory and cards can be changed or extended (e.g. by fire wire).

Applies to: System units and Notebook/laptops only.

Verification Requirements:

1. Declaration from manufacturer
 2. Description of upgrade method
 3. Internal test data by manufacturer showing that method works
-

4.2.2 Optional – Modular design

Product Criterion: Modular design – for example major components/processor can be changed.

Applies to: System units and notebook/laptops only.

Verification Requirements:

1. Declaration from manufacturer
 2. Description of product modules
 3. Description of module change method
-
-

4.3 Product Life Extension

4.3.1 Optional – Availability of replacement parts

Product Criterion: Spare parts and or compatible replacement parts are available 5 years after end of production.

Applies to: All products

Verification Requirements:

1. Declaration from manufacturer
 2. Description of how product user is informed about how to obtain replacement parts
-
-

5. Energy Conservation

5.1 Power Management System

5.1.1 Mandatory – Energy Star® 3.0

Product Criterion: Desktop Computer and Workstation:

- Must enter sleep mode within 30 minute period of inactivity
- Maximum power usage in sleep mode:

Maximum Continuous Output Rating of Power Supply	Watts in Sleep Mode
≤ 200W	≤ 15W
> 200W ≤ 300W	≤ 20W
> 300W ≤ 350W	≤ 25W
> 350W ≤ 400W	≤ 30W
>400W	≤ 10% of Max power rating

Portable Computers and Integrated Computer:

- Must enter sleep mode within 30 minute period of inactivity
- Maximum power usage in sleep mode ≤ 15W
- Sleep on networks and respond to wake events

Monitors: (for the display portion only)

- Maximum power usage in first sleep: ≤ 15W
- Maximum power usage in second ‘deep’ sleep: ≤ 8W

Power management features must be activated before shipping with initial preset default times.

Applies To: All Products

Verification Requirements:

1. Declaration from manufacturer
2. Demonstration of Energy Star® 3.0 certification or compliance with criteria

5.1.2 Optional – Lower power usage

Product Criterion: Desktop Computer, Workstation, & Portable Computer:

- Must enter sleep mode within 30 minute period of inactivity – factory setting is 15 minutes
- Maximum power usage in sleep mode ≤ 5W
- Maximum power usage in off mode ≤ 2W
- Maximum power usage external power supply for portable computers when not hooked to computer ≤ 1W

CRT Monitor:

- Maximum power usage in first sleep: ≤ 10W
- Maximum power usage in second ‘deep’ sleep: ≤ 5W
- Maximum power usage in off mode: ≤ 1W

Flat Panel Display:

- Maximum power usage in sleep mode ≤ 3 W
- Maximum power usage in off mode: ≤ 2W

Power management features must be activated before shipping with initial preset default times.

Applies to: All Products

Verification Requirements:

1. Declaration from manufacturer
2. Demonstration of Blue Angel certification or criteria compliance

References and Details: Equivalent to the German Environmental Label, Blue Angel: www.blauer-engel.de

5.1.3 Optional – Tier 2 Energy Star® 4.0

Product Criterion:

- Maximum power usage in sleep mode $\leq 2W$
- Maximum power usage in off mode: $\leq 1W$
- Maximum on mode/active power usage: Based on pixel count.

Applies to: VDU only

Verification Requirements:

1. Declaration from manufacturer
 2. Demonstration of Tier 2 Energy Star® 4.0 certification or criteria compliance
-

5.1.4 Optional – FEMP "Executive Order 13221"

Product Criterion: FEMP Best Available for Stand-by Power ("off mode")

Desktop Computer: $\leq 2W$

Integrated Computer (with built-in display): $\leq 3.5W$

Portable Computer (measured with external power supply disconnected from portable computer): $\leq 1W$

Workstation: $\leq 2W$

Applies to: System units and laptop/notebooks only.

Verification Requirements:

1. Declaration from manufacturer
 2. Demonstration of FEMP certification or criteria compliance
-

5.2 Power Management

5.2.1 Mandatory – Documented power management features

Product Criterion: Documentation describes power management system, energy savings benefits, and explains how to disable or change settings. Documentation includes online, electronic, or printed materials.

Applies to: All products

Verification Requirements:

1. Declaration from manufacturer
 2. Copy of user documentation
-
-

5.3 Use of Renewable Energy

5.3.1 Optional – Renewable energy accessory available

Product Criterion: Accessory for powering product using renewable energy is commercially available for purchase with the product.

Applies to: All products

Verification Requirements:

1. Declaration from manufacturer
 2. Commercial documentation of product availability
-

5.3.2 Optional – Renewable energy accessory standard

Product Criterion: Product is shipped with a standard component (either internal or external) that allows for use of renewable energy to power the product.

Applies to: All products

Verification Requirements:

1. Declaration from manufacturer
 2. Commercial documentation of product availability
-
-

5.4 Efficiency of Power Supplies

5.4.1 Optional – Efficiency threshold and disclosure of efficiency

Product Criterion: Disclosure of efficiency and actual efficiency of power supply meets a minimum level.

Internal Power supply: at least 70% efficiency @ 50% loading

External Power supply: at least 80% average efficiency from 25, 50, 75, and 100% loading.

Applies to: All products with a power supply

Verification Requirements:

1. Declaration from manufacturer
2. Documentation of energy efficiency
3. Internal test data by manufacturer

6. End of Life Management

6.1 Product Take-Back

6.1.1 Mandatory – Provision of product take-back service

Annual Report Criterion: Must provide a take-back or recycling service at a competitive price that meets EPA’s “Plug-In To eCycling: Guidelines for Materials Management”.

Applies to: All products

Verification Requirements:

1. Declaration from manufacturer
2. Documentation of take-back service
3. Documentation of notification of user of take-back service
4. Documentation of service certification to EPA Guidelines
5. Documentation that demonstrates the service is offered at a competitive price

References and Details: Details on the “Plug-In To eCycling: Guidelines for Materials Management” should be viewed at:

<http://www.epa.gov/epaoswer/osw/consERVE/plugin/guide.htm>

Purchaser is not obligated to contract with OEM for end of life management service.

If an electronics recycling program is provided for EPEAT qualifying products within a specific geography (e.g. California), and if that program provides a

comparable service to the purchaser as would be provided by the manufacturer under this criterion, then the manufacturer can meet this criterion, applicable only for that geography, by notifying the purchaser of that service.

EOL management services may be provided via contracts.

6.2 Rechargeable Battery Recycling

6.2.1 Optional – Provision of a rechargeable battery recycling program

Annual Report Criterion: Provide a battery recycling program that is equivalent to or better than RBRC and that applies to EPEAT covered products, and information about that program.

Applies to: Batteries in EPEAT covered products

Verification Requirements:

1. Declaration from manufacturer
2. Documentation of battery recycling program
3. Documentation of notification of user of battery recycling service
4. Documentation of amounts returned
5. Demonstration that in comparison to RBRC it is equivalent or less in cost to the user and is equivalently convenient for the user

References and Details: Covers Li-ion batteries used in laptop computers. Affix RBRC seal, or appropriate recycling system notification, to battery and make information available on website or product literature.

If a program other than RBRC is provided, it must report amounts returned and demonstrate that in comparison to RBRC it is equivalent or less in cost to the user and is equivalently convenient for the user.

7. Corporate Performance

7.1 Corporate Environmental Policy

7.1.1 Mandatory – Demonstration of corporate environmental policy consistent with ISO 14001

Annual Report Criterion: Companies demonstrate the existence and public availability of a written corporate environmental policy consistent with the all aspects of the policy requirements laid out in the ISO 14001 standard.

Applies to: All companies with EPEAT qualified products

Verification Requirements:

1. Declaration from manufacturer
2. Copy of environmental policy indexed to ISO 14001 requirements

References and Details: Policy requirements:

- Appropriate to the nature, scale and environmental impacts of the organization's activities, products and services
- Commitment to continual improvement and prevention of pollution
- Commitment to comply with environmental legislation and regulations, and with other requirements to which the organization subscribes
- A framework for setting and reviewing environmental objectives and targets
- EMS is documented, implemented and maintained and is communicated to all employees
- Available to the public.

7.2 Environmental Management System

7.2.1 Mandatory – Self-certified environmental management system for manufacturing facilities

Annual Report Criterion: OEM self-certifies, with or without independent assessment, that its OEM-owned manufacturing facilities have an operational Environmental Management System that meets either:

1. The requirements of ISO 14001, or
2. The EMS requirements of the National Environmental Performance Track program*.

Applies to: All companies with EPEAT qualified products

Verification Requirements:

1. Declaration from manufacturer
2. Documentation of self-certification to the specified standard

References and Details: *This does not require participation in the Performance Track program. These requirements are described in the Performance Track Application (questions 1-11) and the corresponding EMS Worksheet section of its Application Help instructions document. These documents are available at <http://www.epa.gov/performancetrack/apps/app.htm>.

7.2.2 Optional – Third-party certified environmental management system for manufacturing facilities

Annual Report Criterion: OEM certifies that all OEM-owned manufacturing facilities have registered ISO14001 Environmental Management Systems.

OR

OEM certifies that its EMS meets EMS requirements of the Performance Track system, including a successful independent assessment by a qualified lead auditor (see notes).

Applies to: All companies with EPEAT qualified products

Verification Requirements:

1. Declaration from manufacturer
2. Documentation of registration to ISO or documentation of third-party certification to Performance Track

References and Details: There are two ways to get this point.

Performance Track found that self-certification was not adequate – survey showed significant EMS issues, and on Feb 1, 2004, PT began requiring an EMS Assessment by an independent qualified lead auditor within three years prior to applying.

This Optional Point rewards companies with independent assessment – either through the ISO process or through the more flexible requirements of Performance Track.

<http://www.epa.gov/performancetrack/>

7.3 Corporate Reporting

7.3.1 Mandatory – Corporate Report consistent with Performance Track

Annual Report Criterion: OEM produces an annual report that meets the first three Performance Track reporting requirements. The word “corporation” may be substituted for “facility” in the requirements.

Applies to: All companies with EPEAT qualified products

Verification Requirements:

1. Declaration from manufacturer
2. Copy of annual report
3. Index to report showing reports compliance with first three Performance Track requirements

References and Details: The Performance Track Annual Performance Report requirements include the following:

- A summary of the facility's EMS assessment activities and progress towards meeting EMS objectives and targets, including brief descriptions of audits conducted and improvements made.
- A brief report on progress made in meeting the facility's environmental performance commitments.
- A summary of the facility's public outreach activities.

Manufacturers may meet the reporting criteria on the corporate level, rather than the facility level as specified in the Performance Track requirements.

An Annual Performance Report format and preparation instructions are available from the EPA web site. <http://www.epa.gov/performancetrack/>

7.3.2 Optional – Corporate report based on Global Reporting Initiative (GRI)

Annual Report Criterion: OEM produces an annual public report that is based on, but not limited to, certain elements of the Global Reporting Initiative (GRI) Sustainability Guidelines. An index is provided to indicate which portions of the GRI Sustainability Guidelines are covered and not covered in the report.

Applies to: All companies with EPEAT qualified products

Verification Requirements:

1. Declaration from manufacturer
2. Copy of annual report
3. Index to report showing how report is based on GRI

References and Details: <http://www.globalreporting.org/>

8. Packaging

8.1 Toxics in Packaging

8.1.1 Mandatory – Reduction/elimination of toxics in packaging

Product Criterion: Heavy metals shall not be intentionally added to any packaging or packaging component. For incidental presence (not intentionally introduced), the sum of the concentration levels of lead, cadmium, mercury and hexavalent chromium present in any package or packaging component shall not exceed 100 parts per million by weight (0.01%).

Applies to: Packaging of EPEAT products

Verification Requirements:

1. Declaration from manufacturer
2. Supplier letter

References and Details: "Intentional Introduction" means: The act of deliberately utilizing a regulated metal in the formation of a package or packaging component where its continued presence is desired in the final package or packaging component to provide a specific characteristic, appearance, or quality. The use of a regulated metal as a processing agent or intermediate to impart certain chemical or physical changes during manufacturing, whereupon the incidental retention of a residue of said metal in the final package or packaging component is neither desired nor deliberate, is not considered intentional introduction for the purposes of this Act where said final package or packaging component is in compliance with subsection c of Section 4 of this Act. The use of recycled materials as feedstock for the manufacture of new packaging materials, where some portion of the recycled materials may contain amounts of the regulated metals, is not considered intentional introduction for the purposes of this Act where the new package or packaging component is in compliance with subsection c of Section 4 of this Act.

"Incidental Presence" means: The presence of a regulated metal as an unintended or undesired ingredient of a package or packaging component.

Recycled Content Exemption:

Packages and packaging components that would not exceed the maximum contaminant levels set forth in subsection c of Section 4 of this Act but for the addition of recycled materials; and provided that the exemption for this subparagraph shall expire January 1, 2010. This exemption shall not apply to any cadmium, lead, mercury or hexavalent chromium that has been recovered and/or separated from other materials for use as a metal or metallic compound.

8.2 Recyclable packaging materials

8.2.1 Mandatory – Separable packing materials

Product Criterion: All non-reusable packaging is separable. All the packaging materials must be able to be segregated into like materials without the use of tools (i.e. need to be able to have all the cardboard separable from the foams separable from the plastic bags).

Applies to: Packaging of EPEAT products

Verification Requirements:

1. Declaration from manufacturer
 2. Internal test data by manufacturer showing that packaging is separable
-

8.2.2 Optional – Packaging 90% recyclable and plastics labeled

Product Criterion: All plastics are identified by material type (SPI, DIN or country specific) and 90% of the packaging (by weight) consists of readily recyclable materials that are commonly accepted in most recycling programs or can be composted or disposed of in municipal sewage programs. This includes: cardboard, boxboard, newsprint, cornstarch, (etc. etc.). Pallets are excluded from the weight calculation.

Applies to: Packaging of EPEAT products

Verification Requirements:

1. Declaration from manufacturer
2. Demonstration that material is normally recyclable or, if not, that there exists a market/use
3. Visual inspections

References and Details: For the definition of “recyclable” refer to Section 260.7(d) of the Federal Trade Commission's Guide for Environmental Marketing Claims: <http://www.ftc.gov/bcp/gmrule/guides980427.htm>.

For some specific packaging materials, the presence or lack of an infrastructure on a regional basis will need to be considered by the manufacturer wishing to demonstrate compliance with this criterion. Since EPEAT ratings will be used nationally, without regional variations, if a product is declared to this criterion, the manufacturer will need to provide a recycling vendor option in certain areas if the recycling infrastructure is not generally available in a region where the EPEAT product will be used.

8.3 Recycled Content

8.3.1 Mandatory – Declaration of recycled content

Product Criterion: Packaging incorporates recycled content (Y/N) and declares approximate recycled content (by weight or volume specified by manufacturer) in the packaging materials used (Range of recycled content in each material).

Applies to: Packaging of EPEAT products

Verification Requirements:

1. Declaration from manufacturer
2. Supplier letter
3. Declaration of recycled content

References and Details: Manufacturer declares whether or not packaging contains any recycled content AND must list each packaging material with the approximate range of recycled content that is in that material.

For example: Corrugated Cardboard: between 15 and 40%
 EPS Foam: 2-5%
 Molded Pulp: Minimum of 60% Post consumer, up to 100%

8.3.2 Optional – Minimum post-consumer content guidelines

Product Criterion: PA CPG Guidelines -

Meets or exceeds the minimum post-consumer content for respective packaging in the CPG Guidelines over the course of a year using a weighted average.

Applies to: Packaging of EPEAT products

Verification Requirements:

1. Declaration from manufacturer
2. Supplier letter
3. Designation of CPG guideline that is met

References and Details: <http://www.epa.gov/epaoswer/non-hw/procure/products/paperbrd.htm>

Item	Post-consumer Fiber (%)
Corrugated Containers <300 psi	25-50
Corrugated Containers 300 psi	25-30
Solid Fiber Boxes	40
Folding Cartons	40-80
Industrial Paperboard (e.g., tubes, cores, drums, and cans)	45-100
Miscellaneous (e.g., pad backs, covered binders, book covers, mailing tubes, protective packaging)	75-100
Padded Mailers	5-15
Carrierboard	10-15
Brown Papers (wrapping paper and bags)	5-20

8.4 Take-Back Option

8.4.1 Optional – Provision of take-back program for packaging

Product Criterion: Manufacturer offers a take-back program for free where the packaging material can be collected/returned to mfg or recycler for reuse or recycling.

Applies to: Packaging of EPEAT products

Verification Requirements:

1. Declaration from manufacturer
 2. Documentation of take-back service
 3. Documentation of notification of user of take-back service
-
-

8.5 Reuse Option

8.5.1 Optional – Documentation of reusable packaging

Product Criterion: Manufacturer provides a reusable packaging process that reuses the packaging for the same or similar product, at a competitive price. Manufacturer designs packaging for a minimum of 5 reuses.

Applies to: Packaging of EPEAT products

Verification Requirements:

1. Declaration from manufacturer
2. Documentation of packaging reuse system