



**EPEAT, Inc.**

One World Trade Center  
121 SW Salmon St., Suite 210  
Portland OR 97204

www.epeat.net  
Voice: (503) 279-9382  
Fax: (503) 279-9381

# VERIFICATION PLAN – ROUND ONE First Half, 2007

## Product Verification Committee

### **I. PURPOSE AND CONTENTS OF THIS DOCUMENT**

This Plan will describe the verification process that will be undertaken in the initial EPEAT Verification Round, including the criteria that will be verified, the number of products to be verified for each criterion, and the method of verification for each.

The products and subscribers to be verified will not be specifically identified. The intention is for the PVC to be blind to the specific product and subscriber that they are making decisions on. This information will be known by the staff and the Qualified Verifier, but will not be provided to the PVC until after completion of the Round. The PVC will know only the product type, including relevant information about the product such as size of monitor. However, in the event that a subscriber appeals a PVC decision, the subscriber and product will be revealed to the PVC in order to resolve the appeal.

### **II. PRODUCT VERIFICATION COMMITTEE**

Following are the members of the PVC:

Patty Dillon  
Dillon Environmental Associates  
Merrimac, MA

Jack Geibig, Acting Director  
Center for Clean Products and Clean Technologies  
University of Tennessee  
Knoxville, TN

Jim Arnold  
Retired from Motorola Labs  
Mesa, Arizona

### **III. QUALIFIED VERIFIERS**

Following are the members of the QV team:

Pamela Brody-Heine  
EcoStewardship Strategies  
Portland, OR

Stephen Greene, Principal  
Howland Green Consulting  
Formerly Product Stewardship Manager,  
Polaroid Corporation  
Lowell, MA

Ming-Shen Lai, President  
LMS Consulting Ltd.  
Richmond, BC, Canada

Anne Peters, President  
Gracestone, Inc.  
Boulder, CO



#### **IV. SPECIAL CONDITIONS FOR ROUND ONE**

Verification Round One is intended to be a pilot round. There will be uncertainties on the parts of both EPEAT, as we develop verification procedures, and the subscribers, as they learn what will be required to demonstrate conformance. It is also understood that ambiguities in the standard or misunderstandings regarding the requirements for demonstration of conformance may be encountered.

In some cases, the 1680 standard contains ambiguous language that could impact conformance findings. Where these are identified and acknowledged by the PVC, the PVC may choose not to conduct a product verification on certain criteria or portions of criteria. Should such be identified, the PVC will strongly recommend to the IEEE 1680 Workgroup that these ambiguities be resolved before additional rounds are conducted.

Secondly, there will be a one-time exception in reporting verification outcomes for this first pilot round. EPEAT will not provide the notification to “purchasers and other parties who specifically request” regarding “specific verification decisions<sup>\*\*</sup>”, nor will the identity of specific products or subscribers be specifically reported on the web site, other than the appropriate changes to or removal of products from the Registry. The Verification Outcomes Report with statistical results will be posted on the web site, including the number and types of non-conformance decisions, however, for this one time only exception, the specific products and subscribers determined to have a non-conformance will not be identified.

Product verifications in this initial Round will result in all the same consequences as outlined in the Operational Policies and Product Verification Plan, except as identified above. A Verification Round Outcome Report will be published that provides detailed information regarding the number of verifications, the number of non-conformance decisions, and the affected criteria.

#### **V. SELECTION OF PRODUCTS AND CRITERIA FOR VERIFICATION**

##### **Selection Principles**

The following principles were defined by the PVC to guide the selection of products and criteria for verification in Round One:

- The overall number of investigations will be large enough to provide a good representation of the products and the categories of criteria.
- A product will be selected for verification from each subscriber for a set of required criteria.
- Some of the more difficult to achieve optional criteria will be selected for verification of products that are declared to be in conformance with these optional criteria.
- Certain criteria that are of special public visibility and concern will be selected for verification.
- A small number of products, and a specified set of criteria, will be selected for verification by means of product disassembly.

##### **Selection Process**

1. The Verification Round Plan will list the criteria that will be verified, the rules for selecting the subscribers and products, and the method of verification that will be used.

---

\* Verification Plan (070220) p.11.

2. Staff will select the subscribers and products according to these rules. The Registry will be sorted according to these rules and a spreadsheet will be created including the subset of qualifying products for each criterion. A random number generator will be used to select the product for verification from that spreadsheet.
3. Individual subscribers will be notified of the products, criteria, and method of verification that have been selected for their products.

#### **Possible Out-of-Sequence Selections**

In the event of special circumstances, the PVC may, at its prerogative, decide to schedule an additional investigation(s) at any time, including while a Round is in progress. In that case, and if the PVC determines that such investigation should be included as a part of Round One, this Verification Round One Plan will be amended and reissued without disrupting the timing of the other verification investigations.

#### **VI. REGISTRY STATISTICS AT THE BEGINNING OF ROUND ONE (as of 2/29/07)**

Products on the Registry: 386

Number of active subscribers: 15

## VII. ROUND ONE INVESTIGATIONS

| Criterion                                |   | Selection Principle   | Invstgs |
|--|---|---|---------|
| <b>Verification by verification data</b> |   |   |         |
| REQ.<br>4.1.1.1                          | Compliance with provisions of European RoHS Directive                             | See disassembly verification selection for the selection of the first two products <sup>1</sup> . Then randomly select one product for each remaining subscriber; rotate the product types.   | 15      |
| OPT.<br>4.1.3.3                          | Elimination of intentionally added mercury used in light sources                  | Randomly select a product of the largest screen size of the three subscribers that have declared to this criterion.   | 3       |
| OPT.<br>4.2.1.2                          | Minimum content of postconsumer recycled plastic                                  | For each subscriber with products declared to this criterion, select the product declared to this criterion that has the highest declared amount in 4.2.1.1   | 2       |
| REQ.<br>4.3.1.2                          | Elimination of paints or coatings that are not compatible with recycling or reuse | The next three criteria (4.3.1.2, 4.3.1.5, and 4.3.1.9) will be verified for five subscribers each, covering all 15 subscribers.<br><br>See disassembly verification selection for the selection of the first two products to be verified to this criterion <sup>1</sup> . Then proceed to the selection of products for 4.3.1.9.<br><br>Then randomly select one product for three subscribers (bringing the total products to five when adding the two products selected for disassembly); exclude subscribers selected for 4.3.1.9; select a monitor if possible, if not select a desktop. | 5       |
| REQ.<br>4.3.1.5                          | Identification and removal of components containing hazardous materials           | After selection for 4.3.1.9 and 4.3.1.2, randomly select one product for the five remaining subscribers (excluding those selected for 4.3.1.9 and 4.3.1.2); rotate the product types.   | 5       |
| OPT.<br>4.3.1.9                          | Minimum 90% reusable/recyclable   | See disassembly verification selection; exclude the two subscribers selected for disassembly since they will be verified to 4.3.1.2. Randomly select five of the remaining subscribers with products declared to 4.3.1.9 <sup>2</sup> and verify 4.3.1.9 for the smallest product by mass of each of these subscribers.   | 5       |
| OPT.<br>4.5.2.1                          | Renewable energy accessory available  | Randomly select a product of all subscribers that declare to this criterion.  | 1       |
| OPT.<br>4.6.1.2                          | Auditing of recycling vendors   | Verify all subscribers that declare to this criterion (corporate criterion).  | 8       |
| REQ.<br>4.7.2.1                          | Self-certified environmental management system                                    | Verify one specific subscriber (corporate criterion).   | 1       |
| OPT.<br>4.7.2.2                          | Third-party certified environmental management system                             | Verify all subscribers that declare to this criterion (corporate criterion).  | 12      |
| OPT.<br>4.8.5.1                          | Documentation of reusable packaging   | Randomly select a product of all subscribers that declare to this criterion.  | 4       |

<sup>1</sup> For the rationale of using this selection process see the disassembly verification selection principles.

<sup>2</sup> There are a total of 10 subscribers that have declared products to 4.3.1.9.

| <b>Disassembly Verification</b>       |   |   |           |
|---------------------------------------|---|---|-----------|
| REQ.<br>4.3.1.3                       | Easy disassembly of external enclosure                                  | <p>The selection of products for disassembly verification will be conducted first. Those products will then be two of the products verified to 4.3.1.2.</p> <p>Select one product for subscribers that have products declared to a large number of applicable criteria and assure a cross section of non-monitor product types; place into a pool; select 2 products randomly, assuring that two different product types are selected.</p> <p>Qualified Verifiers will obtain verification data from subscriber and verify criteria. A unit will have been purchased in advance of notifying the subscriber. A disassembly will be conducted with the assistance of an experienced recycler and the verifier will confirm conformance with each criterion.</p> <p>The products selected for disassembly will be included in the products that are verified to 4.1.1.1 and 4.3.1.2. The reason is in disassembly verification the parts/components in the product will be inventoried and cross-checked for correspondence with the parts/components that the subscriber has identified to be in the product for those criteria.</p> | 2         |
| REQ.<br>4.3.1.4                       | Marking of plastic components   |   | 2         |
| REQ.<br>4.3.1.5                       | Identification and removal of components containing hazardous materials |   | 2         |
| OPT.<br>4.3.1.7                       | Reduced number of plastic material types                                |   | 2         |
| OPT.<br>4.3.2.1                       | Molded/glued in metal eliminated or removable                           |   | 2         |
| OPT.<br>4.3.2.2                       | Marking of plastics   |   | 2         |
| REQ.<br>4.4.2.1                       | Upgradeable with common tools   |   | 2         |
| REQ.<br>4.4.2.2                       | Modular design  |   | 2         |
| REQ.<br>4.8.2.1                       | Separable packing materials   |   | 2         |
| <b>Total number of investigations</b> |   |   | <b>79</b> |

| <b>QV Assignments</b> |  |                    |  |    |
|-----------------------|--|--------------------|--|----|
| <b>QV #</b>           |  | <b>Criterion</b>   | <b>No. of Invstgtns</b>  |    |
| <b>1</b>              |  | Several            | Disassembly verification   | 18 |
| <b>1</b>              |  | 4.3.1.5            | Identification and removal of components containing hazardous materials                          | 5  |
| <b>2</b>              |  | 4.5.2.1            | Renewable energy accessory available   | 1  |
| <b>2</b>              |  | 4.8.5.1            | Documentation of reusable packaging  | 4  |
| <b>2</b>              |  | 4.7.2.1            | Self- certified environmental management system for design and manufacturing organizations       | 1  |
| <b>2</b>              |  | 4.7.2.2            | Third-party certified environmental management system for design and manufacturing organizations | 12 |
| <b>2</b>              |  | 4.1.3.3            | Elimination of intentionally added mercury used in light sources                                 | 3  |
| <b>3</b>              |  | 4.1.1.1            | Compliance with provisions of European RoHS Directive  | 15 |
| <b>3</b>              |  | 4.2.1.2            | Minimum content of postconsumer recycled plastic   | 2  |
| <b>4</b>              |  | 4.3.1.2            | Elimination of paints or coatings that are not compatible with recycling or reuse                | 5  |
| <b>4</b>              |  | 4.3.1.8<br>4.3.1.9 | Minimum 65% & 90% reusable/recyclable  | 5  |
| <b>4</b>              |  | 4.6.1.2            | Auditing of recycling vendors  | 8  |

| <b>#</b> | <b>Verifier</b>    |
|----------|--------------------|
| <b>1</b> | Pamela Brody-Heine |
| <b>2</b> | Stephen Greene     |
| <b>3</b> | Ming-Shen Lai      |
| <b>4</b> | Anne Peters        |