



OUTCOMES REPORT EPEAT VERIFICATION ROUND 2011-05

1. Summary and Details of Verification Round 2011-05

This report provides the detailed results of EPEAT Verification Round 2011-05. Round 2011-05 consisted of hybrid investigations which started with Level 2 and Level 3 investigations and then followed up with Level 1 investigations¹. The investigations involved purchasing two notebook computers, two displays and two desktop computers. The first step was to examine the physical products and packaging to see if they met a number of criteria in the Design for End of Life and Packaging performance categories. Then, if needed, additional information was secured from the Subscriber. Below is a list of the criteria investigated.

- 4.1.1.1 Required – Compliance with provisions of European RoHS Directive.
- 4.1.2.1 Optional – Elimination of intentionally added cadmium.
- 4.1.4.1 Optional – Elimination of intentionally added lead in certain applications.
- 4.1.5.1 Optional – Elimination of intentionally added hexavalent chromium.
- 4.1.8.1 Optional – Large plastic parts free of PVC.
- 4.3.1.2 Required – Elimination of paints or coatings that are not compatible with recycling or reuse.
- 4.3.1.4 Required – Marking of Plastic components.
- 4.3.1.5 Required – Identification and removal of components containing hazardous materials.
- 4.3.1.6 Optional – Reduced number of plastic material types.
- 4.3.1.7 Optional – Molded / glued in metal eliminated or removable.
- 4.3.2.1 Optional – Manual separation of plastics.
- 4.3.2.2 Optional – Marking of plastics.
- 4.5.1.1 Required – ENERGY STAR.
- 4.8.2.1 Required – Separable packing materials.
- 4.8.2.2 Optional – Packaging 90% recyclable and plastics labeled.

These criteria were chosen because they lend themselves to investigation using visual examination, disassembly, and screening using x-ray fluorescence (XRF) analysis. Six of the criteria are required and nine are optional.

This Round was conducted under the revised IEEE 1680.1 standard including the new international registry representing 41 countries. The criteria were investigated on randomly selected notebook computers, displays and desktop computers for which these criteria were applicable. The random selection of products resulted in products from five subscribers subject to verification. These products were purchased in the in the United States, the European Union and in China.

2. Outcomes of Round 2011-05

¹ Definitions of investigation levels can be found in Section 6 at the end of this document.

This Verification Round focused primarily on Level 2 and Level 3 investigations. Level 1 investigations were added to the Verification Round when, during disassembly, conformance to an additional, required criterion was called into question.

Following are the specific highlights of Round 2011-05:

- 6 products were investigated in the Verification Round
- 90 total investigations were launched and completed (on the 6 products):
 - There were 6 investigations for each of the 15 criterion.
- There were 7 decisions of non-conformance and 82 decisions of conformance for these investigations. One investigation was found to be not applicable to the product type.
 - There were 3 decisions of non-conformance for criterion 4.3.2.2 Optional – Marking of plastics. In two cases, the Subscribers took action to move the product into conformance for this criterion. In one case, the Subscriber did not provide an acceptable corrective action plan and the product was archived by the EPEAT Staff.
 - There was 1 decision of non-conformance for criterion 4.5.1.1 Required– ENERGY STAR. The Subscriber added an exception in the Registry for this product which moved the product into conformance for this criterion.
 - There were 3 decisions of non-conformance for criterion 4.8.2.2 Optional – Packaging 90% recyclable and plastics labeled. In all three cases, the Subscribers took the action of marking plastic bags to move the product into conformance for this criterion.
- The impact on the Registry for EPEAT Verification Round 2011-05 was:
 - Four of the six products were found to be non-conformant in at least one criterion selected
 - Two products were archived
 - EPEAT archived one product due to a non-conformant criterion where the corrective action taken was not accepted by the PVC.
 - One product was found to be non-conformant in three criteria and the subscriber modified the exceptions field for one criterion and took action to bring other two criteria into conformance. However, due to the time it would take to move the supply chain into conformance for remaining two criteria, the subscriber archived the product.
 - Two products were brought into conformance following an initial finding of nonconformance and remain on the registry.
 - Two products were found to be in conformance in the initial Level 3 investigation.

3. Key Lessons of Round 2011-05

- This Round was primarily composed of Level 2 and Level 3 investigations, with some exceptions as noted below.
 - Criterion 4.1.8.1: Optional – Large plastic parts free of PVC. Level 3 investigation was performed by XRF analysis to check for the presence and amount of chlorine. Where chlorine was found a Level 1 investigation was launched to request supporting documentation from the Subscriber.
 - *Message to Subscribers:*

- *Without a test specifically for PVC, in Level 3 investigations EPEAT tests for the presence and amount of chlorine. If chlorine is found, EPEAT will follow up with Subscriber to ensure chlorine is not from PVC.*
- Criterion 4.3.1.2: Required - Elimination of paints or coatings that are not compatible with recycling or reuse. A Level 2 investigation using visual inspection was done to check for paints or coatings. When paints or coatings were found, a Level 1 investigation was launched to request an IZOD test report from the Subscriber.
 - *Message to Subscribers:*
 - *In Level 2 investigations if a visual inspection determines that a painting or coating is present, EPEAT will follow up with Subscriber to ensure paintings or coatings are compatible with recycling and reuse.*
- Criterion 4.3.2.2: Optional - Marking of plastics. This criterion requires that all plastic components >25g be marked with a material code in accordance with the identification and marking requirements of ISO 11469:2000.
 - *Message to Subscribers:*
 - *The ISO requirements are specific and must be followed in order to claim this optional point.*
- Criterion 4.5.1.1: Required – ENERGY STAR. The product was not found to be in conformance because the test lab purchased a configuration that was not ENERGY STAR compliant. However, the Subscriber did not utilize the Exceptions field to indicate that some configurations did not meet ENERGY STAR.
 - *Message to Subscribers:*
 - *Be sure that if there are ANY product configurations that do not meet ENERGY STAR, they are listed in the Exceptions field. Another solution is to use the new ProductID field in the EPEAT Declaration where you can make a declaration at a SKU level.*
- Criterion 4.8.2.2: Optional – Packaging 90% recyclable and plastics labeled. Several products had non-marked plastic packaging.
 - *Message to Subscribers:*
 - *Be sure that you understand the exceptions to this criterion. Clarification Report #13 has been published to define “plastic protective and stretch wraps.” The clarification can be found [here](#).*

4. Looking Forward

1. **Plans for Future Verification Activities:** Six Verification Rounds are planned for 2012. The first round has already begun.
2. **Training:** There will be an increased number of trainings worldwide in 2012. Please contact EPEAT staff for more information.
3. **Conformity Assessment Protocols:** This and all future rounds will be conducted according to the Conformity Assessment Protocols posted on www.epeat.net.



5. Investigation Tables

Table 1: Non-Conformance Findings

Criterion	Description	Total # of Investigations	# of completed investigations	# of N/A investigations	# of NCs
4.1.1.1	Required – Compliance with provisions of European RoHS Directive	6	6	0	0
4.1.2.1	Optional – Elimination of intentionally added cadmium	6	6	0	0
4.1.4.1	Optional – Elimination of intentionally added lead in certain applications	6	5	1	0
4.1.5.1	Optional – Elimination of intentionally added hexavalent chromium	6	6	0	0
4.1.8.1	Optional – Large plastic parts free of PVC	6	6	0	0
4.3.1.2	Required – Elimination of paints or coatings that are not compatible with recycling or reuse	6	6	0	0
4.3.1.4	Required – Marking of plastic components	6	6	0	0
4.3.1.5	Required – Identification and removal of components containing hazardous materials	6	6	0	0
4.3.1.6	Optional – Reduced number of plastic material types	6	6	0	0
4.3.1.7	Optional – Molded / glued in metal eliminated or removable	6	6	0	0
4.3.2.1	Optional – Manual separation of plastics	6	6	0	0
4.3.2.2	Optional – Marking of plastics	6	6	0	3
4.5.1.1	Required – ENERGY STAR	6	6	0	1
4.8.2.1	Required – Separable packing materials	6	6	0	0
4.8.2.2	Optional – Packaging 90% recyclable and plastics labeled	6	6	0	3
	Total	90	89	1	7

Table 2: Non-Conformance Findings: Corrective Actions Taken

Subscriber	Product	Country	Product Category	Verification Criterion	Criterion Description	Description of NC Finding	Corrective Action Taken
Dell, Inc.	OptiPlex 990 Mini-Tower	Germany	Desktop	4.3.2.2	Optional – Marking of plastics	The declaration on the EPEAT Registry was found to be inaccurate.	Took action to move into conformance but due to timeframe for complete fix, Subscriber also archived the product.
Dell, Inc.	OptiPlex 990 Mini-Tower	Germany	Desktop	4.5.1.1	Required – ENERGY STAR	The declaration on the EPEAT Registry was found to be inaccurate.	Added product exceptions to Exceptions Field.
Dell, Inc.	OptiPlex 990 Mini-Tower	Germany	Desktop	4.8.2.2	Optional – Packaging 90% recyclable and plastics labeled	The declaration on the EPEAT Registry was found to be inaccurate.	Took action to move into conformance but due to timeframe for complete fix, Subscriber also archived the product.
AOC	e2243Fw	China	Display	4.3.2.2	Optional – Marking of plastics	The declaration on the EPEAT Registry was found to be inaccurate.	EPEAT archived product.
AOC	e2243Fw	China	Display	4.8.2.2	Optional – Packaging 90% recyclable and plastics labeled	The declaration on the EPEAT Registry was found to be inaccurate.	Subscriber took action to move into conformance.
ASUSTeK	Eee PC 1215T	United States	Notebook	4.8.2.2	Optional – Packaging 90% recyclable and plastics labeled	The declaration on the EPEAT Registry was found to be inaccurate.	Subscriber took action to move into conformance.
Hewlett-Packard	ZR2240w 21.5"	China	Display	4.3.2.2	Optional – Marking of plastics	The declaration on the EPEAT Registry was found to be inaccurate.	Subscriber took action to move into conformance.



6. Background

To assure the credibility of the EPEAT Registry, verification of the claims by participating manufacturers (called “Subscribers”) must be rigorous, independent and transparent. Verification is conducted strictly according to policies and procedures described in the IEEE 1680 Standard and in documents provided on www.epeat.net. Subscribers have no forewarning that their products will be verified and verification proceeds against the declarations as they are in the database at the time the round begins.

In Level one verification investigations, subscribers are required to provide detailed and accurate information in a timely manner that demonstrates conformance, such as supply chain management records. In Level two and three investigations EPEAT buys products without the manufacturer’s knowledge and disassembles them, and possibly conducts detailed analytical testing if needed. Investigations are performed by expert technical contractors who are free of conflicts of interest, and their recommended decisions are reviewed and finalized by a 3-person panel of independent technical experts (called the Product Verification Committee or PVC) who are also contractors free of conflicts of interest and are blind to the identity of the products and companies they are judging. This panel makes a conformance/non-conformance decision on each investigation, based on evidence collected and analyzed by Qualified Verifiers. A serious consequence of receiving a non-conformance is that it is published publicly in this report, for purchasers, competitors, and others to see.

Subscribers must correct findings of non-conformance, either by bringing the product into conformance or by un-declaring the criterion until conformance is recovered, and they must do so for all products that are similarly incorrectly declared, not only the product(s) that were investigated. If they correct the non-conformance by un-declaring the criterion and the criterion is an optional criterion, they lose a point, and possibly the product drops a tier. If it is a required criterion, they must archive the product. If it is a required corporate criterion, all their products must be archived.

7. Definitions of Investigation Levels.

- Level 1 Investigation:
 - Desk inspection of manufacturer-provided verification evidence
 - Most commonly used investigation level
- Level 2 Investigation:
 - Investigation of empirical evidence
 - Interviews with 3rd parties (contract recyclers, suppliers, purchasers, technical experts, etc.)
 - Product/packaging examinations possibly with partial disassembly
 - Etc.
 - May also include level one investigation
- Level 3 Investigation:
 - Investigation of empirical or analytical evidence
 - Destructive disassembly
 - Lab tests
 - Etc.
 - May also include level one and level two investigations