



Green Electronics Council

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OUTCOMES REPORT

EPEAT VERIFICATION ROUND PC-2015-02

1. Overview of Verification Round

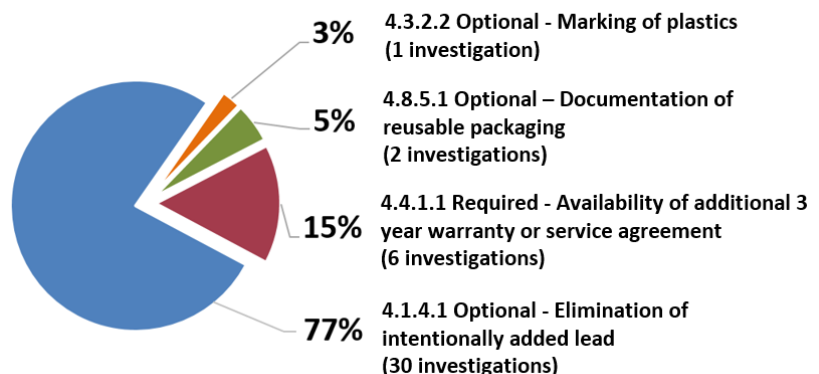
This report provides the detailed results of EPEAT Verification Round PC-2015-02. This Round focused on two categories of criteria for which non-conformances occurred in previous Rounds:

- **Targeted criteria:** This included criteria for which, in a previous investigation, corrective actions did not fully address other registered products potentially impacted by the issue causing the non-conformance. Specific Manufacturers were targeted for Level 1 investigations of the following criteria: 4.3.2.2 (Optional – Marking of plastics); 4.4.1.1 (Required – Availability of an additional 3 year warranty or service agreement); and 4.8.5.1 (Optional – Documentation of reusable packaging).
- **Criterion with higher non-conformance rates in previous Rounds:** This category investigated products selecting criterion 4.1.4.1 (Optional – Elimination of intentionally added lead in certain applications).

In total, thirty-nine Level 1 investigations were completed, of which approximately 15% were for required criteria and 85% for optional criteria (see Figure 1). Products were selected for investigation as follows:

- **Targeted criteria:** The Green Electronics Council's Registry Services staff examined the number of investigations performed in the previous twelve months for which corrective actions did not address other potentially impacted products. After this initial filtering, eleven investigations were specifically targeted for 4.3.2.2, 4.4.1.1 and 4.8.5.1.

FIGURE 1: Criteria Investigated in PC-2015-02
(as percentages of 39 total investigations completed)



- **Criterion with higher non-conformance rates in previous Rounds:** All products selecting criterion 4.1.4.1 were considered for inclusion with one exception. Products investigated against 4.1.4.1 within the previous six months were excluded. Products were then randomly selected. All

Manufacturers with products selecting criterion 4.1.4.1 were investigated. Only one investigation for 4.1.4.1 was performed per Manufacturer.

- No more than four investigations were performed for any one Manufacturer.

2. Summary of Outcomes

Highlights from this Verification Round are:

- **39** investigations completed
- **12** decisions of Conformance
- **1** decision of Inconclusive
- **26** decisions of Non-Conformance (*reasons identified in Figure 2 below*)

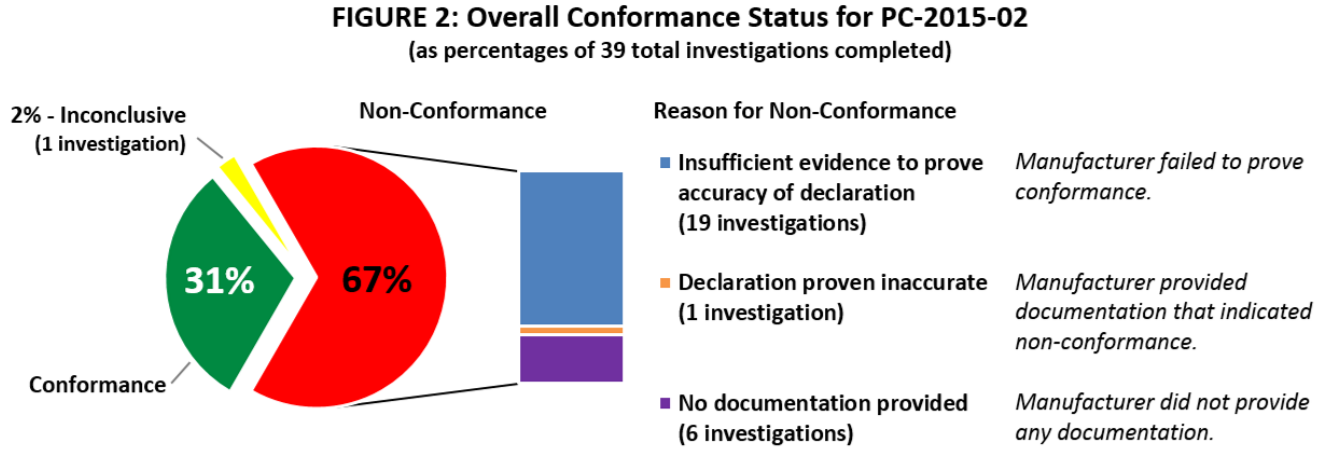


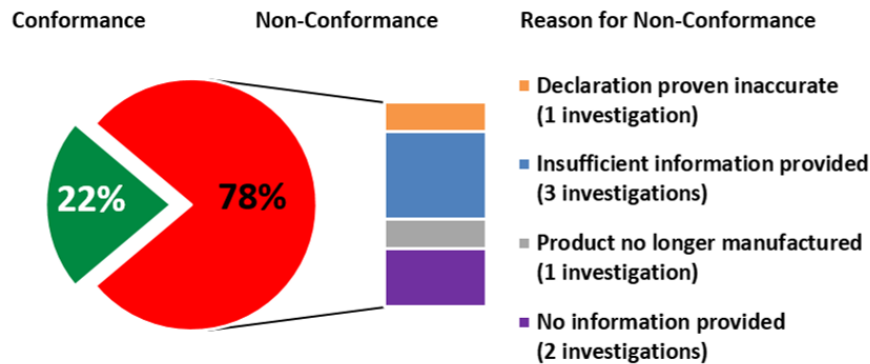
Table 1 summarizes the number of investigations performed and Non-Conformances by criterion.

TABLE 1: Summary of Non-Conformance Findings					
Criterion	Description		Completed Investigations	Non-Conformances	Non-Conformance Rate
4.1.4.1	Optional	Elimination of intentionally added lead in certain applications	30	19	63%
4.3.2.2	Optional	Marking of plastics	1	1	100%
4.4.1.1	Required	Availability of an additional 3 year warranty or service agreement	6	4	67%
4.8.5.1	Optional	Documentation of reusable packaging	2	2	100%

2.1 Summary of Outcomes: Targeted Criteria (4.3.2.2, 4.4.1.1 and 4.8.5.1)

The non-conformance rates for criteria 4.3.2.2 (Optional – Marking of plastics), 4.4.1.1 (Required – Availability of an additional 3 year warranty or service agreement) and 4.8.5.1 (Optional – Documentation of reusable packaging) were high. However, these investigations were specifically targeted due to suspected non-conformances. Looking more closely at these nine investigations revealed the following breakdown (see Figure 3):

FIGURE 3: Targeted Investigations – Further Breakdown
(as percentages of 9 total targeted investigations completed)



- Two investigations resulted in findings of Conformance (both for criterion 4.4.1.1).
- In one investigation (for criterion 4.3.2.2), the declaration was proven to be inaccurate.
- Three Non-Conformances were a result of insufficient information being provided.
 - One was for criterion 4.8.5.1. While documentation was provided on the packaging re-use system itself, no information was submitted on the cost-competitiveness of the packaging reuse system, and the packaging being designed for a minimum of five reuses.
 - Two were for criterion 4.4.1.1. In both investigations, no information was provided for how purchasers are made aware of the availability of the additional three year warranty.
- For one Non-Conformance (criterion 4.8.5.1), the Manufacturer indicated the product was no longer being manufactured and only provided a signed declaration.
- Two Non-Conformances (both for 4.4.1.1) were a result of no information being provided.

For further insights, see Section 3 on Key Lessons.

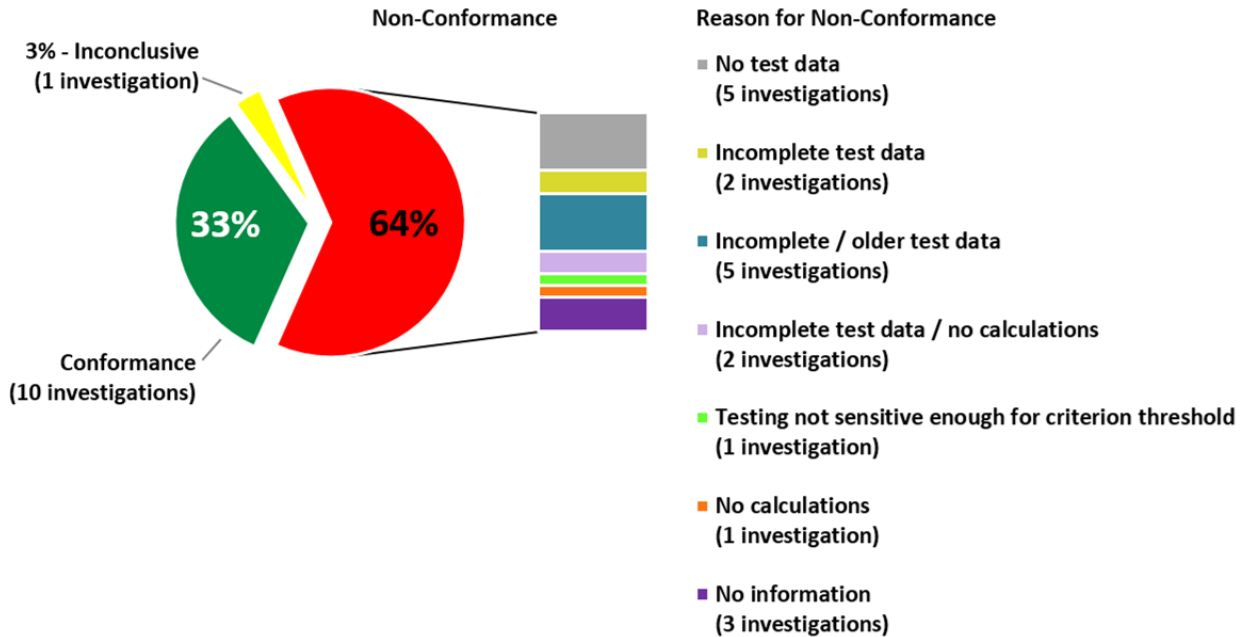
2.2 Summary of Outcomes: Criterion 4.1.4.1

Showing conformance with criterion 4.1.4.1 required that Manufacturers provide information that supports the following three key elements of the criterion: (1) identification of the “listed part” in the product; (2) analytical or empirical test data that show the lead content of homogeneous

materials in each “listed part;” and (3) calculations to show the parts per million of lead by weight on a “listed part” basis.

For the investigations performed against criterion 4.1.4.1, ten resulted in findings of Conformance, and 19 in Non-Conformance. Looking more closely at these 30 investigations revealed the following breakdown (see Figure 4 – also see Section 3 on Key Lessons for further insights):

FIGURE 4: Criterion 4.1.4.1 Investigations – Further Breakdown
(as percentages of 30 total criterion 4.1.4.1 investigations completed)



2.3 Summary of Outcomes: Actions to Restore Conformance

In Section 6, Table 2 presents further details on Non-Conformances including the identification of Manufacturers and products. Following the investigation phase, corrective actions were taken to resolve all identified Non-Conformances and restore the accuracy of the declarations:

- **2 products** Additional data provided by Manufacturers, bringing the products into Conformance with the criterion as originally declared.
- **9 products** Non-conformant declarations unselected by Manufacturers, two of which were unselected before the end of the 30-day investigative period.
- **4 products** Products archived by Manufacturer, one of which was archived before the end of the 30-day investigative period.
- **7 products** Products archived by GEC.
- **4 products** Manufacturer left the Registry before the Corrective Action Phase, therefore all products archived by GEC.

3. Key Lessons

Calculations to support lead content on a listed part weight basis (criterion 4.1.4.1):

Criterion 4.1.4.1 states that listed parts must not contain lead greater than 50 parts per million by weight per listed part. For any single listed part, if the test reports for each homogeneous material show a lead quantity less than 50 parts per million, no calculations are required to determine the parts per million of lead by weight of that listed part. However, if one or more of the homogeneous materials (with the exception of those materials exempted by the RoHS Directive) have lead levels above 50 parts per million, the calculations will be needed. Manufacturers should be prepared to provide these calculations when needed during Verification Rounds.

Provision of analytical or empirical test data (criterion 4.1.4.1):

The verification requirements for criteria in Section 4.1 of IEEE 1680.1-2009 call for “*Evidence of certification from component manufacturers that is based on either empirical data demonstrating compliance or analytical test data demonstrating compliance.*”

Interpretation 1-6 indicates: “*Empirical data may include supplier assurance of conformance, and must include component sampling or data collection that is evaluated within a quality control system that demonstrates conformance.*” Therefore, empirical or analytical results from laboratory testing are required for these criteria, including 4.1.4.1. Additionally, the data must show that the analysis was sensitive enough to demonstrate meeting the criterion’s threshold. Manufacturers are encouraged to be prepared with this information for Verification Rounds.

Analytical and empirical test reports older than 2 years (criterion 4.1.4.1):

[Clarification 29](#) indicates that test data provided during a Verification Round to prove conformance to criteria in 1680.1 should be no older than two years, including data submitted for components that are at a higher-risk for containing substances restricted by a particular criterion. The clarification also states that Auditors may use their professional judgment, experience and expertise to recommend that older report be accepted. One consideration is whether the Manufacturer has in place a quality control program to assure ongoing conformance with the criterion (i.e. a conformance assurance system, or CAS). Manufacturers are encouraged to examine this consideration when preparing data submissions for Verification Rounds.

Material marking codes on plastic components greater than 25 grams (criterion 4.3.2.2):

Criterion 4.3.2.2 requires the marking of plastic components greater than 25 grams in accordance with the provisions of ISO 11469. In particular, ISO 11469 requires reverse angled brackets (the marks “>” and “<”) around the material marking code. The accompanying ISO 1043 series of standards also provides designated abbreviations for polymers, flame retardants, fillers and/or plasticizers. Manufacturers are encouraged to work closely with their suppliers to determine if the verification requirements can be met, and to revisit the Conformity Assurance Protocols to identify the types of information sought by the Conformity Decision Panel to determine conformance.

Packaging designed for a minimum of five reuses (criterion 4.8.5.1):

A key element of criterion 4.8.5.1 is “*Manufacturer designs packaging for a minimum of five reuses.*” While this implies that the packaging materials must be strong and durable, the statement specifically identifies the “design” of the packaging. Documentation (e.g. material composition specifications, dimensional strength records, results of compression and crush test analyses,

supplier declarations, etc.) will only be sufficient if it addresses this design element. Subscribers are encouraged to work with their packaging supplier and be prepared with this information for Verification Rounds.

Cost-competitiveness of packaging reuse system (criterion 4.8.5.1):

Criterion 4.8.5.1 requires that the packaging reuse system be provided at a competitive price to users. During a Verification Round, Subscribers should be prepared to provide documentation that supports at least one of the following:

- A product with reusable packaging is sold at no additional cost or at a competitive cost when compared with the same product in non-reusable packaging.
- The packaging reuse system is competitively priced with similar systems offered by other organizations.
- The packaging reuse system is offered at no additional cost (i.e. a free offering).

Archiving products that are no longer being manufactured:

All products active on the EPEAT Registry are eligible for inclusion in a Verification Round at any time. If a product is no longer being manufactured and the Manufacturer is no longer actively working with suppliers on maintaining information related to conformance, the Manufacturer is strongly encouraged to archive this product. Please note that archived products still appear in the Registry (listed under archived products for each Manufacturer) should purchasers or other stakeholders want to access details regarding the product's previously active registration.

Provision of information during Verification Rounds:

The IEEE 1680 standard and the EPEAT Manufacturer agreement require that Manufacturers provide the information identified in Verification Requirements to prove the accuracy of their declarations within 30 days of EPEAT's request. Manufacturers are reminded that failure to provide this information is inconsistent with the agreement and may result in termination of the Manufacturer from EPEAT.

4. General Message to Manufacturers

Understanding documentation requirements for Verification Rounds:

[EPEAT's Online Learning Center](#) has pre-recorded training modules for every criterion in the 1680.1 standard. These modules are designed to de-mystify the standard's requirements, and to illustrate the types of information needed during a Verification Round. Manufacturers are encouraged to access these modules on EPEAT's Online Learning Center. If you do not yet have access to the Learning Center, please contact [Andrea Desimone](#).

Initial response to Auditors:

When contacted regarding participation in a Verification Round, Manufacturers should respond to the Auditor as soon as possible to let them know they are communicating with the correct person or to inform them of the correct contact. This also helps the Auditor know the e-mail address is valid.

Conformance of products that may share similar traits and/or supply chains:

If a Non-Conformance is found for a particular criterion and product, Manufacturers should be prepared to determine if other products on the EPEAT Registry are similarly impacted due to use of similar materials and/or supply chains, and develop corrective action plans to address the future conformance of these other products. Failure to provide such information may result in future targeted investigations.

5. Looking Forward

Plans for Future Verification Activities:

There are four Verification Rounds planned for 2016 for 1680.1 (Computers and Displays). These Rounds may include Level 1, Level 2 and/or Level 3 investigations.

Conformity Assessment Protocols:

This and all future Verification Rounds have and will be conducted according to the guidance provided in the Conformity Assessment Protocols posted on www.epeat.net.

6. Investigations Table

TABLE 2: Specific Non-Conformance Findings and Corrective Action Taken

Participating Manufacturer	Product	Country	Product Type	Criterion	Required or Optional	Criterion Description	NC Finding Description	Corrective Action Taken
Ace Computers	NomadPAD 10	United States	Notebooks	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer undeclared the Non-Conformant criterion
	VSXB87QTS	United States	Desktops	4.8.5.1	O	Documentation of reusable packaging	Insufficient evidence to prove accuracy of declaration	Manufacturer archived the product
Arquimedes Automação e Informatica Ltda	Corporativo - B	Brazil	Integrated Desktop Computers	4.1.4.1	O	Elimination of intentionally added lead in certain applications	No documentation provided	Manufacturer undeclared the Non-Conformant criterion (prior to end of Round)
digital computer	Attivo AiO	Brazil	Integrated Desktop Computers	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	GEC archived the product
EIZO Corporation	FlexScan EV2216W	United States	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer provided evidence demonstrating Conformance
Fujitsu Limited	B20T-6 LED proGREEN	Sweden	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer provided evidence demonstrating Conformance
Gammatech Computer Corporation	R13C	United States	Notebooks	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer archived the product (prior to end of Round)
GETAC	A790	United States	Notebooks	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer archived the product
Howard Technology Solutions, A Division of Howard	Q87N1	United States	Integrated Desktop Computers	4.1.4.1	O	Elimination of intentionally added lead in certain applications	No documentation provided	Manufacturer undeclared the Non-Conformant criterion (prior to end of Round)
Hyundai IT America Corp.	P278DQ	United States	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer undeclared the Non-Conformant criterion
Iiyama corporation	ProLite E2278HD	France	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	No documentation provided	Manufacturer undeclared the Non-Conformant criterion
Ilhaservice Servicos de Informatica Ltda.	IWP8007	Brazil	Desktops	4.8.5.1	O	Documentation of reusable packaging	Insufficient evidence to prove accuracy of declaration	Manufacturer left the Registry before the Corrective Action Phase

TABLE 2: Specific Non-Conformance Findings and Corrective Action Taken

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MMD-Monitors & Displays Taiwan Ltd.	246V5L	Estonia	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	GEC archived the product
	19B4L	United Kingdom	Displays	4.3.2.2	O	Marking of plastics	Declaration proven inaccurate	GEC archived the product
	221B3L	Sweden	Displays	4.4.1.1	R	Availability of additional 3 year warranty or service agreement	Insufficient evidence to prove accuracy of declaration	GEC archived the product
	221P3L	Canada	Displays	4.4.1.1	R	Availability of additional 3 year warranty or service agreement	Insufficient evidence to prove accuracy of declaration	GEC archived the product
NEC Display Solutions, Inc.	EX201W White Model	Liechtenstein	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer left the Registry before the Corrective Action Phase
	E223W (Black)	Canada	Displays	4.4.1.1	R	Availability of additional 3 year warranty or service agreement	No documentation provided	Manufacturer left the Registry before the Corrective Action Phase
	EA273Wmi (Black)	Luxembourg	Displays	4.4.1.1	R	Availability of additional 3 year warranty or service agreement	No documentation provided	Manufacturer left the Registry before the Corrective Action Phase
Panasonic	Toughbook SX2	United States	Notebooks	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer undeclared the Non-Conformant criterion
Positivo Informática S.A.	Positivo Master N300i	Brazil	Notebooks	4.1.4.1	O	Elimination of intentionally added lead in certain applications	No documentation provided	Manufacturer archived the product
Samsung Electronics	S24C230BL	Austria	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer undeclared the Non-Conformant criterion
TEKNOSERVICE, S.L.	PORTATIL	Spain	Notebooks	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	GEC archived the product
Toshiba	Satellite L55Dt-B PSKU8U	United States	Notebooks	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer undeclared the Non-Conformant criterion
ViewSonic Corporation	VS15052 / VX2270Smh-LED, VX2270S-LED	Canada	Displays	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	Manufacturer undeclared the Non-Conformant criterion
Xplore Technologies Corporation	iX104C6	United States	Tablets/Slates	4.1.4.1	O	Elimination of intentionally added lead in certain applications	Insufficient evidence to prove accuracy of declaration	GEC archived the product

7. Background

To assure the credibility of the EPEAT Registry, verification of the claims by Participating Manufacturers are rigorous, independent and transparent. Verification is conducted according to policies and procedures described in documents provided on www.epeat.net. Manufacturers are given no forewarning that their products will be verified, and verification is performed based on the declarations as they are in the Registry at the time the Verification Round begins.

Investigations are performed by expert technical contractors called Auditors working for a Conformity Assurance Body approved by the Green Electronics Council (GEC). Auditors are free of conflicts of interest, and their recommended decisions are reviewed and finalized by a five-person panel of independent technical experts (called the Conformity Decision Panel) who are also contractors free of conflicts of interest. Decisions of conformity by the Conformity Decision Panel are made blind to the identity of the products and companies they are judging, based only on evidence collected and analyzed by Auditors. A serious consequence of receiving a Non-Conformance is that it is published publicly in an Outcomes Report, for purchasers, competitors, and others to see.

- In Level 0 investigations, an Auditor assesses Conformance to a criterion by examining publicly available information only – no products are obtained for inspection or testing, and the Manufacturer is not asked to submit documentation. If the publicly available information is inconclusive (i.e. was not available, could not be found from public sources, or did not provide enough details to determine conformance), the Auditor may be instructed to proceed with a Level 1 investigation.
- In Level 1 investigations, an Auditor assesses Conformance to a criterion by examining information submitted by a Manufacturer. The Manufacturer is required to provide detailed and accurate information in a 30-day period.
- In Level 2 investigations, the Conformity Assurance Body obtains a product without the Manufacturer's knowledge or involvement, and has the product disassembled and inspected to assess conformance with one or more criteria.
- In Level 3 investigations, the Conformity Assurance Body obtains a product without the Manufacturer's knowledge or involvement, and has the product analytically tested to assess conformance with one or more criteria.

Manufacturers must correct Non-Conformances, either by bringing the product into Conformance, by unselecting the criterion until Conformance is achieved, or by removing the product from the Registry. The Green Electronics Council also requires that Manufacturers examine other registered products to determine if their declarations should be corrected as well. If a Manufacturer corrects the Non-Conformance by unselecting the criterion and the criterion is an optional criterion, they lose that 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, they must archive all of their registered products.