



VERIFICATION PLAN: IMAGING EQUIPMENT – ROUND IE-2015-02 AUGUST 2015

I. PURPOSE AND CONTENTS OF THIS DOCUMENT

This document outlines the plan for a round of verification investigations to be performed in accordance with EPEAT process document QP-02, rev. 1, this verification plan, and other governing documents.

II. APPLICABLE STANDARDS

IEEE 1680:2009 and IEEE 1680.2™-2012

III. SELECTION OF CRITERIA AND PRODUCTS FOR VERIFICATION

Verification Round IE-2015-02 for the IEEE 1680.2™ Standard for the Environment Assessment of Imaging Equipment will focus on investigation of 13 criteria. The Verification Round will investigate all verification requirements for the following IEEE 1680.2™ criteria:

1. 4.1.1.1 Required – Compliance with provisions of European Union RoHS Directive
2. 4.1.2.1 Optional – Further reduction of the use of EU RoHS Directive hazardous substances (cadmium)
3. 4.1.4.1 Optional – Reduction of substances on the EU REACH Candidate List of SVHCs
4. 4.1.6.1 Required – Reducing BFR/CFR/PVC content of external plastic casings
5. 4.3.1.1 Required – Ease of disassembly of product
6. 4.3.1.2 Optional – Ease of disassembly of consumer products
7. 4.3.2.1 Required – Use of single recyclable plastic type per plastic part
8. 4.3.2.2 Required – Restriction on materials not compatible with reuse and recycling
9. 4.3.2.3 Required – Manual separation and marking of plastics
10. 4.8.1.1 Required – Elimination of intentionally added heavy metals in packaging
11. 4.8.2.1 Required – Separable packing materials
12. 4.8.2.2 Optional – Packaging 90% compostable/recyclable
13. 4.8.2.3 Required – Plastics marked in packaging materials

This Round is intended to assure conformance for imaging equipment. This Round will involve lab evaluation of 5 randomly chosen imaging equipment products*. It will include a maximum of 65 Level 1, 2 and 3 investigations. In the event that a chosen product doesn't claim one or more of the optional criteria, the total number of investigations completed may be fewer than planned. A Level 1 investigation involves a review of Subscriber submissions. In Level 2 and 3 investigations a lab chosen by the PRE acquires products without the Subscriber's knowledge, disassembles them, and conducts detailed analytical testing, when needed.

PREs with active imaging equipment products and with Subscribers whose products were not involved in this type of verification round in 2014 will be eligible in this Round. Each PRE will have lab testing completed on no more than 2 products. Each Subscriber will have lab testing completed for no more than 1 product. Products will be chosen from a list of active products from those Subscribers claiming all 4 optional criteria targeted in this Round. If at least 5 products from 5 different Subscribers do not

claim all 4 optional criteria, then products will be selected from a list of products claiming the greatest number of optional criteria from the criteria subject to investigation in this Round.

The Investigations will be chosen as follows:

- The nine required criteria will be investigated for the chosen products.
- For the four optional criteria, each chosen product will be investigated for each optional criterion declared.

A snapshot will be taken of the Registry. The registration status of the planned products will be confirmed. Products will be selected as per the Verification Round Plan.

1. This plan will be published on epeat.net.
2. The Green Electronics Council MSE Staff will instruct PREs to proceed with the purchase of the products to be evaluated.
3. After purchasing the products, each PRE will notify their Subscriber that their product is being evaluated.
4. The PREs will have 30 days to have all testing completed.
5. The PREs will provide an Investigation Report for each product to the Green Electronics Council MSE Staff. For each assigned investigation, the PRE / testing lab will recommend Conformance or Non-Conformance. In some instances a recommendation of Inconclusive may be made with appropriate evidence.
6. The Product Verification Committee will review the reports and determine conformity. The products and Subscribers verified will not be disclosed to the Product Verification Committee, but will be known to the MSE/PRE staff and the testing labs. The intention is for the Product Verification Committee to be blind to the specific product and Subscriber for which they are making conformity decisions. This information will only be provided to the Product Verification Committee after completion of the decision where Non-Conformance findings are published in the Outcomes Report. In the event of an appeal, a Subscriber may present specific information to the Committee regarding a decision, and in that case, the Subscriber and product may be revealed in order to resolve any issues.
7. The Subscribers of the investigated products will be informed of the decision. For decisions of Non-Conformance, the Subscribers are required to take corrective action within 14 calendar days to restore the accuracy of the Registry.
8. The Green Electronics Council MSE will publish a "Verification Round Outcomes Report" identifying the Non-Conforming products and Subscribers, as well as the action taken to restore the accuracy of the Registry.

* Note: In the event that a randomly chosen product costs more than \$1,500, the MSE will work with the PRE to determine how to verify the product. This may involve purchasing a subset of parts, a factory visit and / or choosing a different product.

IV. PRODUCT VERIFICATION COMMITTEE

Following are the members of the PVC:

- Libby Chaplin, CEO, Arcadian Solutions
- Patty Dillon, Dillon Environmental Associates

- Jack Geibig, President, Ecoform
- Robert Pfahl, Pfahl Consulting L.L.C.
- Annette Roesler, Ph.D., Independent Professional Chemist

V. PRES AND QUALIFIED VERIFIERS

All investigations will be conducted through PREs with qualified testing labs working for the respective PRE. The following PREs may be included in this plan's investigations:

- DEKRA PRE
- EPEAT PRE
- Intertek PRE
- ULE PRE

VI. VERIFICATION ROUND PLAN APPROVAL

Round Plan approved by PVC by discussion and e-mail on August 7, 2015.

VII. IMAGING EQUIPMENT VERIFICATION ROUND IE-2015-02 INVESTIGATIONS

	Criterion		Verification Selection and Process	# Planned Investigations
1	4.1.1.1	Required – Compliance with provisions of European Union RoHS Directive	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 3 investigation. 	5
2	4.1.2.1	Optional – Further reduction of the use of EU RoHS Directive hazardous substances (cadmium)	<ul style="list-style-type: none"> Products claiming this optional criterion will be investigated. Criterion verified using Level 3 investigation. 	5
3	4.1.4.1	Optional – Reduction of substances on the EU REACH Candidate List of SVHCs	<ul style="list-style-type: none"> Products claiming this optional criterion will be investigated. Criterion verified using 3 investigation. 	5
4	4.1.6.1	Required – Reducing BFR/CFR/PVC content of external plastic casings	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 3 investigation. 	5
5	4.3.1.1	Required – Ease of disassembly of product	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 2 and 3 investigations. 	5
6	4.3.1.2	Optional – Ease of disassembly of consumer products	<ul style="list-style-type: none"> Products claiming this optional criterion will be investigated. Criterion verified using Level 2 and 3 investigations. 	5
7	4.3.2.1	Required – Use of single recyclable plastic type per plastic part	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 2 and 3 investigations. 	5

	Criterion		Verification Selection and Process	# Planned Investigations
8	4.3.2.2	Required – Restriction on materials not compatible with reuse and recycling	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 2 and 3 investigations. May also include Level 1 investigation if paint or coatings are found. 	5
9	4.3.2.3	Required – Manual separation and marking of plastics	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 2 and 3 investigations. 	5
10	4.8.1.1	Required – Elimination of intentionally added heavy metals in packaging	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 2 and 3 investigations. 	5
11	4.8.2.1	Required – Separable packing materials	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 2 and 3 investigations. 	5
12	4.8.2.2	Optional – Packaging 90% compostable/recyclable	<ul style="list-style-type: none"> Products claiming this optional criterion will be investigated. Criterion verified using Level 2 and 3 investigations. 	5
13	4.8.2.3	Required – Plastics marked in packaging materials	<ul style="list-style-type: none"> Each product chosen will be investigated for this required criterion. Criterion verified using Level 2 and 3 investigations. 	5
			Total	65**

** In the event that a chosen product doesn't claim one or more of the optional criteria, the total number of investigations completed may be fewer than planned.