



turn back the toxic tide

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# Five Fundamental Flaws

## A Concise Critique of the R2:2013 Standard

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### Introduction

The R2:2013 Standard for Electronics Recyclers has now been published in its final form. R2:2013 represents the second version of the R2 Standard. Much has been improved in the overall implementation of the R2 certification program. The new accompanying Code of Practice which now includes the addition of a license fee on recyclers, minimum requirements for trainers and audit times, overall scope clarifications, etc. are all welcome additions to ensure a workable Certification program. We applaud these improvements.

However the R2:2013 Standard itself still retains critical, fundamental flaws or loopholes which unfortunately facilitate socially and environmentally irresponsible behavior in the electronic equipment recycling and asset recovery industry. We remain disappointed and very concerned with the substance of the Standard itself, which has changed very little from the initial version (R2:2008) published five years ago.

The Standard suffers greatly from its seeming intentional avoidance of international law as it refuses to acknowledge or recognize the definitions and obligations, decisions and guidelines of the Basel Convention, which all developed countries, except the United States have ratified and implemented and is now globally adopted by 180 countries. Utilization of this standard in one of the 180 countries that are Parties to the Basel Convention will result in illegal traffic as defined in the Convention, which is a criminal act.

The following critique is not by any means exhaustive of the problematic issues found within R2:2013 but rather identifies five of the major concerns.



Migrant farmer family working at the electronics burning houses. Guiyu, 2008 ©BAN.

## Executive Summary

The R2:2013 Standard continues to embody what appear to be intentional loopholes that provide ready escape avenues for unscrupulous recyclers to externalize costs and global exploitation of human health and the environment. These include the following:

1. R2 does not conform to international hazardous waste laws that apply to trade in used electronics and e-waste. These laws, codified under the Basel Convention, have been ratified by 180 countries.
2. R2 allows a recycler to claim certification without actually certifying all facilities under the company's control.
3. R2 allows substitution of a substandard Environmental, Health, & Safety Management System instead of more comprehensive internationally accepted ISO and OSHAS standards.
4. R2 does not require ethical labor practices, even though child, coerced, and prison labor are still too common in the recycling supply chain worldwide.

5. R2 does not require occupational health and safety protections appropriate to the unique hazards of electronics recycling.



The Basel Parties at their 10<sup>th</sup> meeting re-endorsed the Ban Amendment as being needed now more than ever. October 2011, ©BAN.

## Five Fundamental Flaws

- 1) **Export requirements applied to an R2 facility do not comply with international hazardous waste trade laws (Basel Convention), which are the legal obligations of 180 countries**

The Standard fails to make mention of the Basel Convention anywhere in the text, despite that convention being the legal waste trading framework practiced worldwide. Further, R2:2013 creates loopholes exempting many Basel hazardous wastes from R2 certification export requirements, falsely leading R2 certified recyclers, and certainly their customers to believe they are in compliance with international laws then they are not. Allowing free trade in hazardous wastes to low-wage developing countries represents an economic distortion, environmental abuse and human rights exploitation, as developing countries lack on a national basis the laws, infrastructure and societal safety nets to prevent harm to human health and the environment to support environmentally sound management at recycling facilities.

- a) **The “Focus Materials” Loophole:** The Basel Convention utilizes several long annexes to determine what are wastes and what are hazardous wastes controlled by the Convention. R2:2013 inexplicably never even mentions the word “hazardous” or

“hazardous waste” or even “waste” when these terms are established in international law, and are included in the scope of material covered by R2. Yet R2 purports to be an international standard. Rather, R2:2013, defines “Focus Materials”, a term with no relevance in international law, as the only materials subject to trade restrictions. This clearly intentional avoidance of Basel, begs the question why? Why would R2 authors not reference the international rules of the road if they truly wished to keep all things in R2:2013 legal and applicable worldwide?

“Focus Materials” are the only materials that trigger export controls under R2:2013, and are a very limited list, quite insufficient to be compatible with international law. Glaringly absent are the Basel hazardous wastes found in electronics containing **selenium, antimony, beryllium, cadmium, arsenic, radioactive materials, flammable solvents, etc.** Export of waste electronic equipment containing these hazardous materials requires international trade controls; yet R2:2013 ignores this, making much of the trade allowed by R2 illegal.



Cathode Ray Tubes cracked and dumped in wetland area. Guiyu, China June 2013

- b) **The “Key Functions” Loophole:** Similarly R2:2013 seems to ignore Basel guidelines which seek to distinguish waste and non-waste on the basis of “full functionality”. R2:2013 allows functionality (not full) to be determined by “key functions.” And the definition of Key Functions used by R2:2013 is unique to it: “the originally intended functions of a unit of equipment or component, or a subset thereof, that will satisfactorily serve the purpose(s) of someone who will reuse the unit”.

This can mean that if a buyer makes a mere claim that “someone who will reuse the unit” only wanted a laptop with a functional graphics card but nothing else, then one can export that whole unit with everything else being full of non-functional Focus Material-laden components including **mercury lamps, leaded circuit boards, arsenic laden LEDs, a dead lithium ion or nickel cadmium battery, etc.** (all listed hazardous



wastes under international law) and they can export that material with impunity.

Further, there is absolutely no possibility to determine the truthfulness of the claim of the end user. Rather, it is posited as “someone who will reuse the unit” – a hypothetical someone would fit this definition. All such exports are in this way exempt from the export requirements of the Standard. Thus any amount of broken electronic equipment can be exported as long as one originally intended function still works and a claim is made that it will be reused. This is absolutely not legal under the Basel Convention and its interpretive guidelines, undermines the obligations of Basel Party trading partners and undermines the intent and purpose of the Basel Parties to strictly control the import and export of hazardous wastes.



Slum dwelling teenagers making their living recovering metals after burning imported electronics in Accra, Ghana. ©Pieter Hugo 2009.

- c) **“Materials Recovery” Loophole:** R2:2013 is written with very few defined terms and is thus subject to multiple interpretations and repeated cases of ambiguity. One of the major sources of ambiguity is the question as to which of the R2 provisions, if any, are required downstream of the so called “Recycling Chain,” and where exactly that Recycling Chain ends. We don’t know this because the key term used to define the end of the Recycling Chain, “*materials recovery*” is in itself not defined. But the meaning of the term is vital as it defines the end point beyond which, according to the Standard, the due-diligence (including due diligence for export), and other requirements of the Standard, will no longer apply.

Without a definition, “materials recovery” might mean to some, the point where the material is no longer a waste under international law, or it could mean the shredding operation which creates one or more of the Institute for Scrap and Recycling Industry’s (ISRI’s) so called “commodities”. These designated ISRI “commodities” however are not recognized in international law as non-wastes – indeed most of them are still considered waste and many will be hazardous wastes under the Basel Convention.

Thus, for example, a shredded non-ferrous ISRI commodity can contain large quantities of pulverized lead, which will qualify as Basel listed hazardous waste found in Annex VIII as A1020. Without export due diligence requirements, this dirty shredded material could completely be exempt from downstream vendor export requirements under R2:2013. The same likely (it is unclear) holds true for health and safety requirements of downstream vendors, tracking requirements, etc.

Furthermore, based on the definition of the “Recycling Chain”, the R2 recycler has no responsibility for the hazardous waste (as defined by Basel) that is generated by operations creating “Ready for Resale” or “Ready for Repair” equipment or components.

**2) The Standard fails the corporate ethics test as it only regulates on a facility-by-facility basis.**

One of the most common ploys of irresponsible recyclers is that they will externalize their costs by exporting toxic materials needing expensive management to developing countries in contravention of international laws or the laws of importing or exporting countries. Decisions to profit from this toxic trade are made at the corporate level. Thus a standard that allows a corporation to brand only one or some of their processing facilities or collection sites as R2 (Responsible Recycling), creates a gaping ethical hole, letting a corporation operate with double standards, allowing for exports to continue at their non-certified location(s). This clearly is unethical but also risks misleading the public. The public understandably believes that a listed R2 company is a certified company and thus a responsible company. But in fact that company may be exporting from their facility in Memphis while sporting a certification flag only at their facility in Atlanta.

Because a company can operate collection or processing sites which are not certified and can openly direct materials for export from them direct to China or Africa all while calling themselves an R2 Certified Company, a massive loophole can be created and customers and consumers are misled while the company profits from irresponsible behavior.

**3) Allows and could certify prison, slave, or child labor operations for managing e-waste, including hazardous materials dismantling and processing, and data security activities.**

The R2:2013 has no reference to minimum labor standards and thus utterly fails the test of being socially responsible. The term “labor” does not even appear in the Standard, nor does the term “social accountability,” as in reference to the normative standard SA 8000. It is clear that any international standard must reference child labor and slave labor, as these are sadly not universally forbidden.

Prison labor takes many forms but even in its most benign form has proven to be inappropriate for electronic waste, which contains hazardous materials, and sensitive private data.



Worker breaking open toner cartridges covered with toner. Guiyu, China, June 2013, © BAN.

Prisoners are not in a position to demand proper training, outcomes from right-to-know laws, occupational health law implementation, etc. They are too often at the mercy of the prison wardens and their contractors to correctly apply such laws, thus even when the laws to protect prison populations are theoretically meant to apply equally as their application to non-incarcerated citizens, they are in fact unevenly applied to prison populations. Already, there has been a sad history of prison laborers suffering from exposure to toxic chemicals in U.S. e-waste prison processing operations.

Likewise, it is inappropriate for prison populations to manage private data that is stored in the memory of some waste electronics as the risk of criminality in such populations is obviously high.

Further, almost all prison labor represents a form of subsidy by the government, which adversely impacts the development of recycling capacity in the private sector. If the operations are subsidized by virtue of the workers not being paid the equivalent of a minimum legal wage, or the enterprises not having to pay rent, overhead, etc., they amount to an externalization of costs to the taxpaying public, thereby not placing the true value of recycling into the cost of our products and unfairly competing with private sector recyclers.

#### 4) Environmental, Health & Safety Management System allows for substandard applications

R2:2013 has tried to rectify a problem with its earlier standard by adding a requirement for an Environmental, Health and Safety Management System based on an existing approved standard. But unfortunately it now purports to assume false equivalency between the comprehensive and internationally accepted ISO standards with ISRI's RIOS, which has been criticized by industry experts as being a minimal compilation of obsolete versions of ISO 9001, 14001 and OSHAS 18001. It remains unclear as to what yardstick has been used to qualify EHSM systems as being acceptable for R2:2013.

#### 5) Inadequate Requirements for Occupational Safety and Health

Also of grave concern is a lack of mandatory requirements for in-house air-testing to protect the worker's health. Even for facilities operating shredders, chemical and heat treatment processes, no air testing is required beyond what might be required by law. In many countries such tests are not required. Likewise there is no requirement to disallow the shredding of mercury, beryllium, cadmium, or selenium containing devices, etc. By leaving it to the individual recyclers to determine when testing might be appropriate, hazards may go unnoticed and unaddressed, and workers irreparably harmed.

END



Certified Recycling at CEAR, an e-Stewards Founder company committed to not export e-waste to developing countries. Mather, California. 2008. © CEAR