

What's Wrong With the EPA's New R2 Electronics Recycling Standard?

What is R2?

The EPA has recently released a new voluntary standard for recyclers of electronic waste, called "R2." R2 stands for "responsible recycling." **Unfortunately, it falls well short of "responsible", when it comes to the toxic materials.** In fact, the standard is so weak in key areas that the only two participating environmental groups (the Basel Action Network and the Electronics TakeBack Coalition) both withdrew in protest from the multi-stakeholder process in the final stages.

What's Wrong with R2?

R2 fails to adequately address the four biggest problems in the electronics recycling industry.

| The 4 worst problems plaguing the e-waste recycling industry | How does R2 address the problem? |
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| <p>1. EXPORT: The US dumps much of its toxic e-waste on developing nations.</p> <p>This is the single biggest problem plaguing this industry, and US laws don't prevent it.</p> | <ul style="list-style-type: none"> Does R2 ban export of toxic e-waste to developing countries, like all of Europe does? No. Does R2 at least require that e-waste exports comply with the laws of the importing countries? No. On the surface, R2 appears to require this. But in the details, there are so many loopholes, R2 exporters will be allowed to violate these countries' laws. Does R2 clamp down on the current ruse of exporting broken/obsolete products but saying they are for reuse/refurbishment – to evade the laws? No. R2's reuse provision has huge loopholes allowing export of non-working equipment. <p><i>See section below this table for more details on the limitations of the export language in R2.</i></p> |
| <p>2. INCINERATION/LANDFILLING: The US currently allows toxic e-waste in solid waste landfills and incinerators that are not designed for hazardous waste, resulting in inappropriate management of</p> | <p>R2 discourages but still allows R2 certified recyclers to put toxic e-waste in solid waste landfills or incinerators, including waste-to-energy incinerators.</p> |

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| heavy metals and persistent bioaccumulative chemicals. | |
| <p>3. PRISON RECYCLING: The federal government and many others are sending toxic e-waste to prison recycling operations, where inmate workers lack the same rights and capacity to redress serious occupational hazards as private sector workers. A government-subsidized prison recycling system can underbid and therefore undermine private sector recycling infrastructure.</p> | <p>R2 does not ban the use of prison recycling, and prison recycling operations will be able to be R2 certified.</p> <p>The EPA ruled this issue “off the table” from the beginning of the R2 discussions, despite many objections from US recyclers.</p> |
| <p>4. WORKER HEALTH & SAFETY: The US is doing little to protect its own electronics recycling workers. A common practice in the US is to shred electronics (such as LCDs) with mercury and small batteries in the mix, when it is widely known that this disperses toxins directly into the workplace and the shredded materials.</p> | <p>R2 leaves it up to recyclers to identify the toxic chemicals they are dealing with, their potential hazards, and appropriate tests for exposures. There are no baseline requirements for what tests should be done for toxic materials common in electronics, or how to minimize exposure. R2 recyclers must develop an Environmental Health and Safety Management System, but the requirements are so general that recyclers can do little and still become R2 certified.</p> <p>R2 allows mercury and batteries to go into shredders, if it’s “too costly” to remove small mercury devices, and the recycler can argue that workers are protected and “appropriate technology” is used. There are currently no shredders that can fully capture vaporized mercury and what is “appropriate” is entirely subjective.</p> |

Under R2, E-Waste Can Still Be Exported To Developing Countries

Any standard in this industry that purports to be “responsible” needs to prevent the problem of global e-waste dumping. Initially, the environmental organizations wanted R2 to ban the export of toxic e-waste to developing countries. This was flatly rejected. As a compromise, we asked that R2 only allow exports that did not violate the laws of the importing and transit countries, knowing this would effectively eliminate most exports of toxic materials to developing countries from the United States. While this principle was supported throughout most of the process, the final R2 standard does not uphold this principle, and thus still allows the export of toxic materials in ways that will regularly violate the laws of importing countries. Here’s how:

- A. **R2 allows exports of certain materials that countries consider “hazardous waste”**
- a. **Toxics missing from R2’s “focus materials” list.** R2 says that exports of “focus materials” should only go to countries “that legally accept them.” But the list of focus materials doesn’t include some dangerous toxins often found in e-waste that most recipient countries consider to be hazardous waste because they are considered hazardous waste under international law (the Basel Convention). These include materials containing cadmium, beryllium, chromium, arsenic, selenium and hazardous toners. Because the R2 list of focus materials is not aligned with these international definitions, it almost assures that R2 exports will violate these countries’ laws.
 - b. **Shredded e-waste.** Under R2, if material is shredded or processed so that it no longer is defined as “equipment or components”, a downstream vendor can export the material with no controls whatsoever, even though it is still toxic, and even though it violates the laws of other countries.
- B. **R2 will not assure “legal imports” to developing countries**
- The only accurate way to know whether it’s legal for a country to accept our toxic waste is for our government to ask their government (via their designated “competent authority”) for permission to ship them specific materials to specific facilities. Instead of this single protocol, as required in the 140 countries that have ratified the Basel Convention but are not part of the OECD, R2 has invented another idea-- the recycler makes its own determination of what another country can and cannot accept from the US, and/or by allowing EPA to provide “relevant information.” R2 also fails to include the transit countries in the requirements for legal traffic in R2 toxic waste, when 170 countries are legally bound to restrict toxic trade through their ports without prior notification.
- C. **Reuse loophole.** The reuse provision contains a number of opportunities for R2 certified recyclers to export in violation of laws in importing countries, including:
- **Small quantity exemptions:** Under two circumstances, R2 allows shipments of 15 units or less to be exempt from export provisions. This “small quantity” exemption is an invention of R2 and has no standing in international law, which almost all other countries must uphold. Like the loopholes above, this will result in a deliberate violation of the laws of countries who are Basel Parties.
 - **Weak language on only exporting working equipment.** We would like to see strict language that prevents exports of non-working or non-tested equipment for alleged reuse. But, while R2 claims that only tested equipment should be sent into reuse, R2 doesn’t require testing before exporting. It allows recyclers to send untested or non-working equipment or parts to any other undefined ‘recipient vendor’ and to pass along that obligation to make sure only working equipment goes into reuse, and the toxic leftovers are handled according to R2 standards. Not only will the

auditors and R2 recyclers be unable to ensure all this happens, but there is not even a requirement for the other vendors to test the equipment or be audited.

- With no definition of key terms like “effective testing methods”, it’s very possible that R2 recyclers or their sub-sub-vendors will simply do a power-up test on a monitor, for example, which would only indicate that the power supply is working, and would not rule out screen burn, scratches, or other problems with color, contrasts, definition, etc. The faulty monitor would then be dumped in the receiving country

D. **R2 ignores legally binding OECD treaty.** Exports of certain toxic materials to OECD (developed) countries are not controlled at all under the R2 provisions, even though they should be controlled because the US has ratified the OECD treaty. (www.oecd.org) For example, exports of hazardous materials are allowed to OECD countries only for recycling, but not for disposal. And exports to OECD countries also require government-to-government notification and consent under carefully prescribed procedures, but R2 is silent about this legally binding US obligation.

View complete R2 Guidelines here: <http://www.decideagree.com/R2%20Document.pdf>
View detailed critique of R2 shortcomings [here](#)



Basel Action Network (BAN)
www.ban.org



Electronics TakeBack Coalition
www.electronicstakeback.org