

**Basel Action Network's Electronic Stewardship Initiative:  
The Basics of How We Qualify  
Responsible Electronics Recyclers as Pledge-Signers**

<http://www.ban.org>

In order to build an infrastructure of responsible recyclers who go beyond state and federal requirements, and respect international laws and definitions pertaining to hazardous waste, as well as the principle of environmental justice, it is important to only allow those recyclers listed as Pledge signers or e-Stewards to process your e-waste, and not to attempt to replicate our efforts. ([www.ban.org/#Pledge](http://www.ban.org/#Pledge)) However, many have asked how we verify compliance with the Pledge. Although there is much detail and nuance involved in our verification procedure, below are the basics. These pertain not only to the immediate recycler in question, but to all of their vendors or subcontractors for the hazardous components.

## **GOAL**

The overall goal of our e-Steward or Pledge program, at a minimum, is to ensure that the hazardous electronic components at end-of-life, defined internationally as hazardous wastes (by the Basel Convention), are not exported against the decisions of that treaty to non-OECD<sup>1</sup>/EU countries, deposited in solid waste landfills or incinerators, or sent to prison-recycling operations. All of these pathways are unsustainable and unjust, in that they externalize the real liabilities, risks and costs posed by hazardous electronic waste, allowing electronics manufacturers to avoid preventing such costs and risks through better design, while disproportionately burdening and exploiting vulnerable communities and environments contrary to the principles of environmental justice.

## **US LAWS VS INTERNATIONAL LAWS**

It is important to note that currently, US definitions are not harmonized with international definitions. But regardless of this, US hazardous electronic waste automatically falls under international law as soon as it gets outside of US territory. Even though the US is not a Basel Party, more than 160 countries are, and according to Article 4, Paragraph 5 of the Convention, those countries are not allowed to trade in hazardous wastes with a non-Party (such as the US), unless there is a special bi-lateral or multi-lateral agreement signed between specific countries, including non-Parties. The Organization for Cooperative and Economic Development (OECD) treaty is the only multi-lateral agreement the US has with other countries pertaining to the export of wastes from the United States, and it requires notification and written consent prior to export to any of the other 29 OECD countries. If the United States is to become involved in hazardous waste trade that is not illegal (at least for the importing country), it thus must confine its

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<sup>1</sup> Organization for Economic and Cooperative Development (OECD) – an organization representing the interests of the 30 most developed nations, including the US.

exports to either member states of the OECD or to non-Basel Parties (of which there are very few).

## **ENVIRONMENTAL JUSTICE**

Export of US hazardous waste to developing countries is also in violation of basic environmental justice principles, as adopted by Executive Order [US EPA Civil Rights Environmental Justice Order 12898, <http://www.epa.gov/civilrights/eo12898.htm>]. Although this order does not explicitly extend to citizens in other countries, it is hypocritical to pretend that the environmental justice principle is not valid once a hazardous waste crosses US boundaries.

Likewise, prison labor is known to disproportionately subject minority and economically stressed populations to substantial risks from the hazards currently in electronics, while subsidizing the electronics industry through the taxpayer-funded prison system, undercutting private sector recyclers.

## **WHEN ARE ELECTRONICS CONSIDERED WASTE?**

Electronic components and/or materials are considered waste under Basel definitions:

- If they are going to an inclusive list of disposal, reclamation, and/or recycling destinations listed in Annex IV of the Basel Convention ([www.basel.int](http://www.basel.int));
- If they are going for 'major' repairs. While the term 'major' has not yet been defined in Basel, the precautionary and consistent definition of major repair would mean 'any repairs which result in part of the waste stream being a hazardous waste – that is, repairs which would require the replacement or removal of hazardous components (such as circuit boards, CRTs, etc.), thereby generating hazardous waste for recycling or disposal.

## **WHICH ELECTRONICS ARE HAZARDOUS WASTE?**

It is important to bear in mind that the Basel Convention only regulates hazardous wastes from all sources, wastes collected from households, and solid waste incinerator ash. Only hazardous electronic wastes as defined under the Convention are regulated under the Basel Convention.

The following electronic parts are considered hazardous under Basel definitions (citations attached):

- Cathode ray tubes ( [CRTs]- the glass tubes in many monitors and TVs), leaded glass cullet from CRTs, and anything containing CRTs or leaded glass (due to lead content);
- Circuit boards, both high-value and low-value boards, and anything containing them (due to lead and beryllium content);
- Any components containing mercury and/or PCBs;

- Any components or material containing beryllium;
- Any battery containing lead, cadmium or mercury or a component containing such a battery.

Note on plastics: Even though plastics impregnated with brominated flame retardants and PBDEs can be very detrimental to health and the environment, especially if melted at low temperatures which can create dioxins and furans, these materials are currently not as clearly defined as hazardous waste under Basel. However, such a determination can be made by individual countries. In any event, waste generators may want to ensure that plastics with brominated compounds are not processed using primitive techniques.

### **SOME QUESTIONS WE ASK POTENTIAL RECYCLERS BEFORE QUALIFYING THEM AS ADHERENTS TO OUR PLEDGE AND ELIGIBLE TO BE AN e-STEWARD.**

Due to the nuance of the issues involved, we highly recommend only allowing qualified e-Stewards to process electronic waste in North America. These are some of the questions we ask recyclers, pertaining to all of their downstream vendors:

1. CIRCUIT BOARDS: This question has two parts, one for the high-value boards (with precious metals) that come out of central processing units (CPUs) and other electronics, and one for the low-value boards (with little to no precious metals) that come out of monitors and TVs.

*"Where exactly do the high-value circuit boards end up for disposal, recycling or repair? (i.e. in what country, in what facility, and what is the contact name and number there so we can contact them and verify?)"*

*"Where exactly do the low-value circuit boards end up for final disposal, recycling or repair? (i.e. in what country, in what facility, and what is the contact name and number there so we can contact them and verify?)"*

2. CRT GLASS/CRTs: "Where exactly are the CRTs or leaded CRT glass being disposed, recycled, repaired, or used as feedstock for the manufacture of new CRTs? What is the facility name and contact number so we can verify that they are receiving stated volumes of CRTs/cullet from you, and properly processing it and shipping to appropriate destinations?"

3. MERCURY: "Where exactly does the mercury (e.g. in LCD display lamps) end up for final processing? (i.e. in what country, in what facility, and what is the contact name and number there so we can contact them and verify?)"

4. PCBs: "If any of the equipment contains PCBs (capacitors, old transformers, light ballasts), where exactly do the PCBs end up for final processing or disposition? (i.e. in what country, in what facility, and what is the contact name and number there so we can contact them and verify?)"

5. (Optional) "How and where are the mixed plastics from electronics being processed?"

**ANSWERS TO LOOK FOR:**

The acceptable answer to questions 1-4 are, "In OECD/EU countries only (including the US), in facilities with environmental management systems in place, but not using solid waste disposal systems, non-OECD/EU countries, or prison labor." This includes leaded glass cullet that has been prepared as a feedstock for the manufacture of new CRTs, as it is explicitly listed as a covered waste in Annex VIII of the Basel Convention. The list of OECD/EU countries is attached.

**QUESTIONS?**

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