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## Summary of HR 2284/S1270, the Responsible Electronics Recycling Act

### Goal

The goal of this bill is to address the problem of toxic e-waste dumping in developing nations, and to support economic and job growth for responsible recycling companies in the U.S. This bill seeks to allow only "clean exports" of used electronics – those materials or parts not containing toxic chemicals, and products exported for reuse that have been tested and found to be fully functional. Historically, toxic electronic waste exported from the U.S. has been shown to cause significant toxic exposure to poor communities around the world)

### Summary

The bill creates a new category of waste under federal RCRA laws, called "restricted electronic waste," which includes "covered electronic equipment" (a wide range of used consumer electronic products or parts) that contain any of the listed toxic chemicals. Restricted electronic waste may not be exported to developing countries. The bill still allows the export of tested and working used equipment being exported for reuse, as well as exports by manufacturers sending equipment under warranty for warranty repairs. The bill also establishes the Rare Earth Recycling Research Initiative, to foster research into recycling rare earth materials.

**What MAY BE EXPORTED to developing countries under this bill** (if the importing country agrees to accept it)

- Equipment and parts may be exported for reuse if they are tested and found to be fully functional
- Non-working equipment covered by a manufacturer warranty being sent to the original manufacturer or component manufacturer for warranty repair center for warranty repairs
- Products subject to a recall (like the recent laptop battery recall) where return of the product to the manufacturer is required
- Processed leaded glass cullet (crushed glass from cathode ray tubes) which has been cleaned and prepared as feedstock into a glass-to-glass recycling plant in a country that does not classify it as a hazardous waste
- Material streams (metals, glass, plastics) from e-waste that do not contain any of the listed toxic chemicals

**What MAY NOT BE EXPORTED to developing countries**

- Used electronic equipment or parts containing listed toxic chemicals, that are not fully functional, or are not tested
- Shredded material derived from electronic equipment containing listed toxic chemicals

## **Details and definitions:**

This approach is consistent with the policy most other developed nations, including all of the European Union have adopted via international treaties – the Basel Convention (signed by the United States but not yet ratified) and Basel Ban Amendment.

### **Enforcement:**

The bill will create a licensing regime for exporters of electronics, to allow enforcement agencies to distinguish between covered and exempted electronics. A violation of the bill can result in criminal penalties. Companies violating the law will be posted on a public registry of violators.

### **Developing nations:**

Countries which are not members of the Organization for Economic Cooperation and Development (OECD) or the European Union; or Liechtenstein (which is not a member of either). This definition is consistent with that used in international treaties, such as the Basel Convention.

### **Restricted electronic waste definition:**

Items of covered electronic equipment, that include, contain, are derived from, or consist of—

- cathode ray tubes or cathode ray tube glass in any form, or cathode ray tube phosphor residues or dusts in any form;
- a lamp or other device containing mercury phosphor;
- batteries containing lead, cadmium, or mercury, or organic solvents exhibiting the characteristic of ignitability. (This does not include alkaline batteries.)
- switches or any other devices containing mercury;
- hexavalent chromium;
- other than batteries described above, items containing antimony, barium, cadmium, lead, thallium, beryllium, arsenic, or selenium exceeding de minimis levels set by the EPA, including—
  - circuit boards;
  - printer drums;
  - liquid crystal displays;
  - flat screen glass; and
  - light emitting diodes;

All references to chemicals include their elemental or compound forms. The bill includes a procedure to modify this list. The EPA will conduct rulemaking to determine the de minimis amounts for the materials above.

**Covered electronic equipment'** includes the following used items, whole or in fragments, including parts, components, or assemblies thereof:

- Computers.
- Central processing units.
- Mobile computers (including notebooks, netbooks, tablets, and e-book readers).
- Computer accessories (including input devices, webcams, speakers, data storage devices, servers, and monitors).
- Televisions (including portable televisions and portable DVD players).
- Video display devices (including digital picture frames and portable video devices).

- Digital imaging devices (including printers, copiers, facsimile machines, image scanners, and multifunction machines).
- Television peripheral devices (including video cassette recorders, DVD players, video game systems, game controllers, signal converter boxes, and cable and satellite receivers).
- Digital cameras and projectors.
- Digital audio players.
- Telephones and electronic communication equipment (including cellular phones and wireless internet communication devices).
- Networking devices (including routers, network cards, modems, and hubs).
- Audio equipment.
- Portable video game systems.
- Personal digital assistants.
- Portable global positioning system navigation devices.

The bill includes a procedure to modify this list.

#### **Rare Earth Materials Recycling Research Initiative**

The bill includes a provision for the Secretary of Energy to establish a competitive research program to provide grants to applicants to research:

- Safe removal, separation, recycling of rare earth materials from electronics
- Technology, component, material design more suitable for disassembly and recycling of rare earth material
- Collection, logistics and reverse supply chain optimization as related to recycling rare earth materials from electronics